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# ABBREVIATIONS

| | |
|---|---|
| **A** | |
| @ | AT |
| AB | ANCHOR BOLT |
| AC | ACOUSTICAL |
| ACM | ALUMINUM COMPOSITE PANEL |
| ACP | ACOUSTICAL CEILING PANEL |
| ACT | ACOUSTICAL CEILING TILE |
| AD | AREA DRAIN |
| ADA | ACCESSIBLE |
| ADJ | ADJUSTABLE |
| AF | ATHLETIC FLOORING |
| AFF | ABOVE FINISHED FLOOR |
| ALUM | ALUMINUM |
| ALT | ALTERNATE |
| ANG | ANGLE |
| AWP | ACOUSTICAL WALL PANEL |
| APPROX | APPROXIMATE |
| ARCH | ARCHITECTURAL |
| ASPH | ASPHALT |
| **B** | |
| BB | BACKER BOARD |
| BD | BOARD |
| BITUM | BITUMINOUS |
| BLDG | BUILDING |
| BLK | BLOCK |
| BLKG | BLOCKING |
| BM | BEAM |
| B.O. | BOTTOM OF |
| BOT | BOTTOM |
| BP | BUILDING PAPER |
| BR | BULLET RESISTANT |
| BRK | BRICK |
| **C** | |
| C | CONCRETE |
| CABT | CABINET |
| CB | CARPET BASE |
| CBB | CEMENTITIOUS BACKER BD |
| CELL | OPEN CELL CEILING SYSTEM |
| CFMF | COLD FORMED METAL FRAMING |
| CFT | CERAMIC FLOOR TILE |
| CFCI | CONTRACTOR FURNISH, CONTRACTOR INSTALL |
| CFOI | CONTRACTOR FURNISH, OWNER INSTALL |
| CI | CAST IRON |
| CIP | CAST IN PLACE |
| CJ | CONTROL JOINT |
| CL | CENTER LINE |
| CLG | CEILING |
| CMU | CONCRETE MASONRY UNIT |
| COL | COLUMN |
| CONC | CONCRETE |
| CONC BLK | CONCRETE BLOCK |
| CONST | CONSTRUCTION |
| CONT | CONTINUOUS |
| CP | CEMENT PLASTER |
| CPT | CARPET |
| CS | CEILING SYSTEM |
| CST | CAST STONE |
| CT | CERAMIC TILE |
| CTF | CERAMIC TILE FLOORING |
| CTB | CERAMIC TILE BASE |
| CW | CURTAIN WALL |
| CWT | CERAMIC WALL TILE |
| **D** | |
| DF | DRINKING FOUNTAIN |
| DIA | DIAMETER |
| DIM | DIMENSION |
| DISCONT | DISCONTINUOUS |
| DN | DOWN |
| DR | DOOR |
| DS | DOWN SPOUT |
| DTL | DETAIL |
| DWG | DRAWING |
| **E** | |
| | EXISTING |
| EX | EXPOSED |
| EA | EACH |
| EC | ELASTOMERIC COATING |
| EF | EPOXY FLOORING |
| ES | EXTERIOR SHEATHING |
| EL | ELEVATION |
| ELEC | ELECTRIC |
| ELEV | ELEVATOR |
| EO | EDGE OF |
| EP | EPOXY PAINT |
| EQ | EQUAL/EQUIVALENT |
| EQUIP | EQUIPMENT |
| ESC | ESCALATOR |
| EWC | ELEC WATER COOLER |
| EXH | EXHAUST |
| EXIST | EXISTING |
| EXP | EXPANSION |
| EJ | EXPANSION JOINT |
| EXT | EXTERIOR |
| **F** | |
| | FABRIC |
| FAA | FIRE ALARM ANNUNCIATOR |
| FC | FINISHED CEILING |
| FD | FLOOR DRAIN |
| FDC | FIRE DEPARTMENT CONNECTION |
| FDN | FOUNDATION |
| FEC | FIRE EXTINGUISHER CAB |
| FFE | FINISHED FLOOR ELEVATION |
| FG | FINISH GRADE |
| FH | FIRE HYDRANT |
| FHC | FIRE HOSE CABINET |
| FIN | FINISH |
| FIXT | FIXTURE |
| FL | FLOORING |
| FLEX | FLEXIBLE |
| FLS | FLOOR SYSTEM |
| FLUOR | FLUORESCENT |
| FPP | FOLDING PANEL PARTITION |
| FO | FACE OF |
| FR | FRAME |
| FRP | FIBER RESIN PANEL |
| FRTW | FIRE RESISTANT TREATED WOOD |
| FS | FLOOR SINK |
| FT | FOOT/FEET |
| FTG | FOOTING |
| FUT | FUTURE |
| FV | FIELD VERIFY |
| FWC | FABRIC WALL COVERING |
| **G** | |
| GA | GAUGE |
| GALV | GALVANIZED |
| GC | GENERAL CONTRACTOR |
| GYP | GYPSUM BOARD |
| GEN | GENERATOR |
| GI | GALVANIZED IRON |
| GL | GLASS/GLAZING |
| GR | GUARD RAIL |
| GRD | GRID LINE |
| **H** | |
| H.A.S. | HEADED ANCHOR STUD |
| HB | HOSE BIB |
| HDWD | HARDWOOD |
| HDWR | HARDWARE |
| HM | HOLLOW METAL |
| HORIZ | HORIZONTAL |
| HPC | HIGH PERFORMANCE COATING |
| HP | HIGH POINT |
| HR | HOUR |
| HSS | HOLLOW STRUCTURAL SECTION |
| HT | HEIGHT |
| HTG | HEATING |
| HVAC | HEATING, VENTILATION AND AIR CONDITIONING |
| HW | HARDWOOD FLOOR |
| **I** | |
| ID | INSIDE DIAMETER |
| INSUL | INSULATION |
| INT | INTERIOR |
| IRGB | IMPACT RESISTANT GYP BD |
| **J** | |
| JAN | JANITOR |
| JB | JUNCTION BOX |
| JT | JOINT |
| **K** | |
| KD | KNOCK DOWN |
| KEC | KITCHEN EQUIPMENT CONTRACTOR |
| KPL | KICK PLATE |
| **L** | |
| L | LENGTH |
| LAM | LAMINATE |
| LAV | LAVATORY |
| LH | LEFT HAND |
| LL | LIVE LOAD |
| LP | LIGHTING PANEL |
| LSF | LINOLEUM SHEET FLOORING |
| LT | LIGHT |
| LTG | LIGHTING |
| LVR | LOUVER |
| **M** | |
| M | MIRROR |
| MAT | MATERIAL |
| MAX | MAXIMUM |
| MB | MARKER BOARD |
| MDF | MEDIUM DENSITY FIBERBOARD |
| MECH | MECHANICAL |
| MFR | MANUFACTURER |
| MH | MANHOLE |
| MID | MID-POINT/MIDDLE |
| MIN | MINIMUM |
| MISC | MISCELLANEOUS |
| ML | METAL LOCKERS |
| MO | MASONRY OPENING |
| MS | METAL STUDS |
| MTD | MOUNTED |
| MTL | METAL |
| **N** | |
| N | NORTH |
| NIC | NOT IN CONTRACT |
| NTS | NOT TO SCALE |
| NA | NOT APPLICABLE |
| NO | NUMBER |
| **O** | |
| OC | ON CENTER |
| OD | OUTSIDE DIAMETER |
| OFCI | OWNER FURNISHED, CONTRACTOR INSTALLED |
| OFOI | OWNER FURNISHED, OWNER INSTALLED |
| OFF | OFFICE |
| OH | OVERHEAD |
| OPG | OPENING |
| OPP | OPPOSITE |
| **P** | |
| P | PAINT |
| PB | PARTICAL BOARD |
| PC | PRECAST CONCRETE |
| PCP | PRECAST CONCRETE PAVERS |
| PER | PERIMETER |
| PF | PREFINISHED |
| PIP | POURED IN PLACE |
| PL | PLATE |
| PLAM | PLASTIC LAMINATE |
| PLAS | PLASTER |
| PLWP | PLASTIC LAMINATE WALL PANEL |
| PMW | PREFINISHED METAL WALL PANELS |
| PNL | PANEL(BOARD) |
| PR | PAIR |
| PSL | PARALLEL STRAND LUMBER |
| PT | POINT |
| PW | PLYWOOD |
| PWR | POWER |
| **Q** | |
| Q | QUADRANT |
| QT | QUARRY TILE |
| QTY | QUANTITY |
| **R** | |
| R | RADIUS/RISER |
| RA | RETURN AIR |
| RB | RESILIENT BASE |
| RBB | RUBBER BASE |
| RBF | RUBBER FLOORING |
| RCP | REFLECTED CEILING PLAN |
| RD | ROOF DRAIN |
| RE: | REFER TO |
| REC | RECEPTACLE |
| REF | REFERENCE |
| REINF | REINFORCING |
| REM | RECESSED ENTRY MAT |
| REQD | REQUIRED |
| REQMT | REQUIREMENT |
| RESIL | RESILIENT |
| REV | REVISE/REVISION |
| RF | RESILIENT FLOORING |
| RFM | RECESSED FLOOR MAT |
| RM | ROOM |
| RO | ROUGH OPENING |
| ROW | RIGHT OF WAY |
| RT | RESILIENT TILE |
| RTG | RATING |
| RWF | RESILIENT WOOD FLOOR |
| **S** | |
| S | SEALED |
| SAN | SANITARY |
| SAT | SUSPENDED ACOUSTIC TILE |
| SB | SOUND ATTENUATION BLANKETS |
| SC | SOLID CORE |
| SCHD | SCHEDULE |
| SD | SMOKE DETECTOR |
| SECT | SECTION |
| SEF | SEAMLESS EPOXY FLOORING |
| SEFB | SEAMLESS EPOXY FLOORING BASE |
| SGB | SUSPENDED GYP. BOARD |
| SIM | SIMILAR |
| SLC | SEALED CONC |
| SLT | SLATE FLOORING |
| SM | SHEET METAL |
| SPC | SPECIAL COATING |
| SPEC | SPECIFICATIONS |
| SS | STAINLESS STEEL |
| SSCG | STAINLESS STEEL CORNER GUARD |
| SSF | SYNTHETIC SPORTS FLOORING |
| SSM | SOLID SURFACE MATERIAL |
| ST | STAINED |
| STNT | STONE TILE |
| STBD | STRAW BOARD |
| STC | STAINED CONCRETE |
| STD | STUD |
| STL | STEEL |
| STN | STONE |
| STOR | STORAGE |
| STRUCT | STRUCTURAL |
| STS | STANDING SEAM |
| SUSP | SUSPENDED |
| SVB | SHEET VINYL BASE |
| SVF | SHEET VINYL FLOORING |
| SW | SIDEWALK |
| SYM | SYMMETRICAL |
| **T** | |
| T | TILE |
| T&B | TOP AND BOTTOM |
| T&G | TONGUE & GROOVE DECK |
| TC | TELEPHONE CLOSET |
| TEL | TELEPHONE |
| TEMP | TEMPORARY |
| THER | THERMOSTAT |
| THR | THRESHOLD |
| TLC | TOILET COMPARTMENT |
| TMPRD | TEMPERED |
| T.O. | TOP OF |
| TOB | TOP OF BEAM |
| TOC | TOP OF CONCRETE |
| TOF | TOP OF FLOOR |
| TOM | TOP OF MASONRY |
| TOS | TOP OF STEEL |
| TOW | TOP OF WALL |
| TP | TILE PATTERN |
| TRANS | TRANSFER |
| TRZ | TERRAZZO |
| TS | TUBE STEEL |
| TV | TELEVISION |
| TW | TACKABLE WALL SURFACE |
| TYP. | TYPICAL |
| **U** | |
| UNO | UNLESS NOTED OTHERWISE |
| UL | UNDERWRITERS LABORTORY |
| UR | URINAL |
| **V** | |
| VACT | VINYL COATED ACT |
| VB | VAPOR BARRIER |
| VCT | VINYL COMPOSITE TILE |
| VEN | VENEER |
| VENT | VENTILATION |
| VERT | VERTICAL |
| VEST | VESTIBULE |
| VSF | VINYL SHEET FLOORING |
| VWC | VINYL WALL COVERING |
| **W** | |
| W | WIDTH |
| W/ | WITH |
| WB | WOOD BASE |
| WC | WATER CLOSET |
| WD | WOOD |
| WFC | WATERPROOF FLOOR COVERING |
| WGBV | WATER RESISTANT GYP BRD W/ VAPOR BARRIER |
| WG | WIRE GLASS |
| WH | WATER HEATER |
| WND | WINDOW |
| W/O | WITHOUT |
| WP | WORK POINT/WATER PROOF |
| WRGB | WATER RESISTANT GYP BD |
| WS | WALL SYSTEM |
| WT | WEIGHT |
| WW | WOOD WAINSCOT |
| WWF | WELDED WIRE FABRIC |
| **X** | |
| XC | EXPOSED CONSTRUCTION |
| XS | EXPOSED STRUCTURE |

# LEGEND

NORTH ARROW

WINDOW NUMBER

DOOR NUMBER

ROOM IDENTIFICATION — ROOM NAME, ROOM NUMBER

CEILING TAG — CEILING MATERIAL, CEILING HEIGHT

ELEVATION TAGS

FLOOR ELEVATION

FLOOR NAME, FLOOR ELEVATION

FINISH TAG — FINISH TYPE, FINISH #

WALL TYPE — SEE LEGEND ON SHEET A9.00

TOILET ACCESSORIES TAG — SEE LEGEND ON SHEET A5.00

EQUIPMENT TAG — SEE SCHEDULE ON SHEET A0.10

TOILET / SHOWER GROUP TAG — SEE LEGEND ON SHEET A5.00

KEY NOTE

MATCH LINE — SEE SHEET XX.XX

GRAPHICS SIGN TAG — SIGN TYPE, SIGN TYPE QUANITY, QUAD NAME, FLOOR NAME

ENLARGED PLAN / DETAIL — DRAWING NUMBER, SHEET NUMBER WHERE ENLARGED DRAWING APPEARS

GRID BUBBLES — GRID NUMBER

QUADRANT – (NORTH WEST), GRID NUMBER

DETAIL BUBBLE IDENTIFICATION

INTERIOR ELEVATION KEY — DRAWING NUMBER, SHEET NUMBER, ELEVATION DRAWN, *NUMBER ORIENTATION INDICATES ROOM NORTH

MILLWORK ELEVATION KEY — DRAWING NUMBER, SHEET NUMBER, ELEVATION DRAWN

EXTERIOR ELEVATION KEY

DETAIL SECTION — DIRECTION OF VIEW

WALL SECTION — DIRECTION OF VIEW

BUILDING SECTION — DIRECTION OF VIEW

DIMENSIONS — ALL PLAN DIMENSIONS ARE TO FACE OF STUD FRAMING OR FACE OF MASONRY UNLESS OTHERWISE NOTED

# MATERIAL SYMBOLS

BRICK
CONCRETE BLOCK
CAST IN PLACE CONCRETE
PRECAST CONCRETE
CAST STONE
CUT STONE
COMPACTED FILL
UNDISTURBED EARTH
GRAVEL
BATT INSULATION/ SOUND ATTENUATION BLANKETS
RIGID INSULATION
WOOD BLOCKING
FINISHED WOOD
PLYWOOD
MEDIUM DENSITY FIBERBOARD (MDF)
STEEL (LARGE SCALE)
ALUMINUM (LARGE SCALE)
GYPSUM BOARD (LARGE SCALE)
METAL STUD PARTITION
GLASS (LARGE SCALE)
ACOUSTIC MATERIAL
STRAWBOARD
EXTERIOR INSULATION BOARD (EIFS)

# PLAN LEGEND

GYP BOARD PARTITION WALL
CAST-IN-PLACE CONCRETE WALL
FURRED-OUT CAST-IN-PLACE CONCRETE WALL
CMU BLOCK WALL – 1" SCALE
PRECAST WALL / SEATING – 3/8" SCALE
CATWALK DECK – 1/8" SCALE
CATWALK DECK – 1/4" SCALE
"WHITE BOX" UNFINISHED SPACE
OPEN TO BELOW / DEPRESSED SLAB

# BASE BID CLARIFICATION

TYPE OF BIDS: BIDS SHALL BE ON A LUMP SUM BASIS FOR THE BASE CONTRACT, AND INCLUDE A SEPARATE PRICE FOR ALTERNATES.

ALTERNATES ARE LISTED HEREIN, DESCRIBED IN THE SPECIFICATIONS AND IS PROVIDED FOR IN THE BID FORM. THE PRICE OF THE BID FOR AN ALTERNATE WILL BE THE AMOUNT TO BE ADDED TO THE PRICE OF THE BASE BID IF THE OWNER SELECTS THE ALTERNATE.

ADD ALTERNATE # 1
TRAIN SLIDE TO THE TOT POOL

ADD ALTERNATE # 2
CLIMBING WALL

ADD ALTERNATE # 3
ASPHALT PAVING FOR THE PARKING LOT.
a. GRADING, BASE COURSE, CURB & GUTTER, AND CONCRETE UNIVERSAL PARKING IS INCLUDED IN THE BASE BID.

ADD ALTERNATE # 4
THE SPA.
a. PLUMBING AND ELECTRICAL TO THE SPA LOCATION IS A PART OF THE BASE BID.

ADD ALTERNATE # 5
FIBER OPTIC CABLE CONNECTION FROM RATON CITY HALL TO AQUATIC CENTER

| DESCRIPTION | REV. DATE | REV. NO | NUMERIC SCALE CONFIRMATION |
|---|---|---|---|
| | | | DRAWINGS ARE DEPICTED AT INTENDED NUMERIC SCALES IF THIS BAR EQUALS ONE INCH |

GRA-001 6/29/07 1:1

THESE DRAWINGS DO NOT INCLUDE NECESSARY COMPONENTS FOR THE CONSTRUCTION SAFETY WHICH SHALL REMAIN THE RESPONSIBILITY OF THE CONTRACTOR.

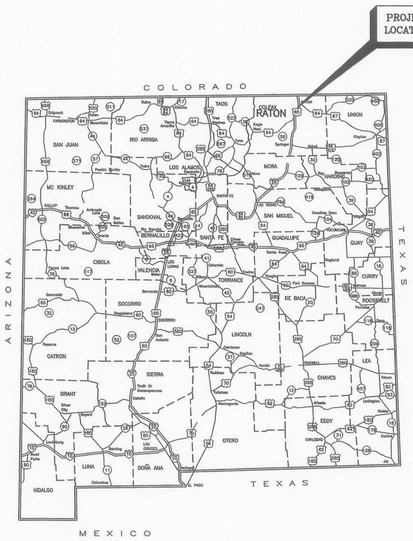
ALL IDEAS, DESIGNS, ARRANGEMENTS, AND PLANS INDICATED OR REPRESENTED BY THIS INSTRUMENT ARE OWNED BY AND THE PROPERTY OF SINK COMBS DETHLEFS, MOLZEN-CORBIN & ASSOCIATES, AND THEIR CONSULTANTS, AND WERE CREATED AND DEVELOPED FOR USE ON AND IN CONNECTION WITH THE SPECIFIED PROJECT. THESE IDEAS, DESIGNS, ARRANGEMENTS OR PLANS SHALL NOT BE USED BY ANY PERSON, FIRM, OR CORPORATION FOR ANY PURPOSE WHATSOEVER WITHOUT THE WRITTEN CONSENT OF SINK COMBS DETHLEFS AND MOLZEN-CORBIN & ASSOCIATES.

# RATON AQUATIC CENTER

JUNE, 2007

*for the*

## CITY OF RATON, NEW MEXICO




VICINITY MAP

# INDEX OF DRAWINGS


| SHEET | DESCRIPTION |
|---|---|
| G0.01 | TITLE SHEET |
| G0.02 | CODE ANALYSIS & NOTES |
| G0.03 | EGRESS PLAN & NOTES |
| C0.01 | SITE PLAN |
| C1.01 | GRADING PLAN |
| C1.02 | STORM DRAIN P&P |
| C1.03 | GEOMETRIC LAYOUT & POINT TABLE |
| C1.04 | MISCELLANEOUS DETAILS I |
| C1.05 | MISCELLANEOUS DETAILS II |
| S0.01 | GENERAL STRUCTURAL NOTES |
| S1.01 | FOUNDATION PLAN |
| S1.02 | RETAINING WALL LOCATION PLAN DETAILS & SCHEDULE |
| S2.01 | ROOF FRAMING PLAN |
| S2.02 | MECHANICAL LEVEL FRAMING PLAN |
| S3.01 | FOUNDATION SECTIONS |
| S4.01 | FRAMING SECTIONS |
| S4.02 | FRAMING SECTIONS |
| A2.10 | GROUND LEVEL FLOOR PLAN |
| A2.11 | GROUND FLOOR DIMENSION PLAN |
| A2.20 | MECHANICAL WELL PLAN |
| A2.30 | ROOF PLAN |
| A3.10 | EXTERIOR ELEVATIONS |
| A3.11 | EXTERIOR ELEVATIONS |
| A3.20 | BUILDING SECTIONS |
| A3.21 | BUILDING SECTIONS |
| A3.22 | BUILDING SECTIONS |
| A3.23 | BUILDING SECTIONS |
| A3.30 | WALL SECTIONS |
| A3.31 | WALL SECTIONS |
| A3.32 | WALL SECTIONS |
| A3.33 | WALL SECTIONS |
| A4.10 | ENLARGED FLOOR PLANS |
| A5.10 | INTERIOR ELEVATIONS |
| A5.11 | INTERIOR ELEVATIONS |
| A5.12 | INTERIOR ELEVATIONS |
| A5.13 | INTERIOR ELEVATIONS |
| A5.14 | INTERIOR ELEVATIONS |
| A6.10 | GROUND FLOOR REFLECTED CEILING PLANS |
| A7.10 | EXTERIOR STAIRS PLANS AND SECTIONS |
| A8.10 | PLAN DETAILS |
| A8.20 | ROOF DETAILS |
| A8.30 | FOUNDATION DETAILS |
| A9.10 | PARTITION TYPES |
| A9.20 | MILLWORK DETAILS CONTROL DESK |
| A9.21 | MILLWORK DETAILS |
| A9.22 | MILLWORK DETAILS SNACK BAR |
| A9.40 | CEILING DETAILS |
| A9.70 | ENLARGED WINDOW FRAMES & TYPES |
| A9.71 | DOOR WINDOW DETAILS |
| A9.72 | DOOR WINDOW DETAILS |
| A9.80 | DOOR/FRAME SCHEDULE |
| A9.90 | FINISH SCHEDULE |

| SHEET | DESCRIPTION |
|---|---|
| MP.00 | MECHANICAL COVER SHEET LEGEND AND DRAWING INDEX |
| M2.10 | FIRST FLOOR HVAC PLAN |
| M2.20 | ROOF HVAC PLAN |
| M3.00 | ENLARGED SCALE HVAC PLAN & SECTIONS |
| M4.00 | HVAC SCHEDULES |
| M5.00 | HVAC DETAILS |
| P2.10 | FIRST FLOOR PLUMBING PLAN |
| P2.20 | ROOF PLUMBING PLAN |
| P3.00 | ENLARGED SCALE PLUMING PLANS |
| P4.00 | PLUMBING SCHEDULES |
| P5.00 | PLUMBING DETAILS |
| P6.00 | PLUMBING ISOMETRICS |
| E1.00 | ELECTRICAL ONE-LINES/LEGEND |
| E1.10 | ELECTRICAL SITE PLAN |
| E1.20 | LIGHTING/CONTROL SCHEDULES |
| E1.21 | ELECTRICAL TELE/DATA DETAILS |
| E1.22 | ELECTRICAL DETAILS |
| E1.30 | PANEL AND EQUIPMENT SCHEDULES |
| E2.10 | POWER PLAN |
| E2.30 | ROOF POWER PLAN |
| E3.10 | SYSTEMS PLAN |
| E4.10 | POOL EQUIPMENT PLAN |
| E6.10 | LIGHTING PLAN |
| SP0.0 | POOL SITE PLAN |
| SP1.0 | RECREATIONAL POOL PLAN |
| SP1.1 | RECREATIONAL POOL SECTIONS |
| SP1.2 | RECREATIONAL POOL DETAILS |
| SP1.3 | RECREATIONAL POOL DETAILS |
| SP1.4 | RECREATIONAL POOL LOCATION POINT SCHEDULE |
| SP2.0 | SPA PLAN, SECTIONS, & DETAILS |
| SP2.1 | SPA LOCATION POINT SCHEDULES |
| SP3.0 | POOL PIPING PLAN – SUCTION |
| SP3.1 | POOL PIPING PLAN – RETURN |
| SP4.0 | POOL MECHANICAL ROOM PLAN & SECTIONS |
| SP4.1 | POOL MECHANICAL DETAILS |
| SP4.2 | POOL MECHANICAL DETAILS |
| SP5.0 | POOL SYSTEM SCHEMATICS |
| SP6.0 | POOL STRUCTURAL PLAN |
| SP6.1 | GENERAL NOTES AND DETAILS |
| SP6.2 | SECTIONS AND DETAILS |


## ARCHITECTS

Molzen-Corbin & Associates
Project Architect: John Quinn Pate

Sink Combs Dethlefs
Architects: Chirs Kastelic
Gudmundur Jonsson

## STRUCTURAL ENGINEERS

Quiroga-Pfeiffer Engineering Corp.

## CIVIL ENGINEERS

Molzen-Corbin & Associates

## MECHANICAL ENGINEERS

The Ballard Group, Inc.

## ELECTRICAL ENGINEERS

Innovative Electrical Systems

## POOL CONSULTANTS

Counsilman - Hunsaker

## CERTIFICATION:

I, JOHN QUINN PATE, REGISTERED PROFESSIONAL ARCHITECT NO. 1784 HEREBY CERTIFY THAT THE FOLLOWING PLANS AND DESIGNS WERE MADE UNDER MY SUPERVISION AND DIRECTION AND THAT SAME IS TRUE AND CORRECT TO THE BEST OF MY KNOWLEDGE AND BELIEF

STATE OF NEW MEXICO — JOHN QUINN PATE NO. 1784 — REGISTERED ARCHITECT

N.M.R.A. NO. 1784 6/24/07

SINK COMBS DETHLEFS ARCHITECTS SPORTS
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MOLZEN-CORBIN & Associates
ENGINEERS/ARCHITECTS/PLANNERS

G0.01
Sheet

NOTICE OF EXTENDED PAYMENT PROVISION: THIS CONTRACT ALLOWS THE OWNER TO MAKE PAYMENT WITHIN 45 DAYS AFTER SUBMISSION OF AN UNDISPUTED REQUEST FOR PAYMENT

# CODE ANALYSIS

**REVIEW CRITERIA**

| | |
|---|---|
| *Building:* | Raton Aquatics Center |
| *Location:* | Raton, New Mexico |
| *Proposed Type of Construction:* | Type II-B Non-rated |
| *Occupancy Classification:* | A-3 Assembly uses intended for worship, recreation or amusement. |
| *Stories- Proposed:* | 1 Story |
| *Fire Protection:* | Section 903: Automatic Fire Extinguishing Systems |

An automatic fire extinguishing system is not required in the Proposed Aquatic Center by Section 903 of the code based on occupancy or building floor area requirements. An automatic fire sprinkler system has been assumed throughout the building and will be used to increase the allowable area per the provisions of the IBC Section 506.3.

**APPLICABLE CODES:**

| | |
|---|---|
| 2003 | New Mexico Commercial Building Code |
| 2003 | International Building Code (IBC) |
| 2003 | NMMC and Uniform Mechanical Code |
| 2003 | NMPC and Uniform Plumbing Code |
| 2005 | New Mexico Electrical Code |
| 2005 | National Electric Code (NEC) |
| 2003 | NMECC and International Energy Conservation Code (IECC) |
| 2003 | National Fire Protection Association Standards (NFPA) |
| 1998 | ICC/ANSI 117.1 Accessible and Usable Buildings and Facilities |
| 2005 | 7.18.3 NMAC, Public Swimming Pools, Spas and Baths: Design and Construction |

### *A. BUILDING FLOOR AREA SUMMARY:*

The Student Recreation Center, as proposed, shall house the A-3 Assembly occupancy type and shall be constructed as Type II- A (Non-Rated Construction).

| Floor Level | Approx. Gross Floor Area | Occupancy |
|---|---|---|
| First Floor Total Building | 19,360 | A-3 |

### LOCATION ON PROPERTY:

Determine the location of the Proposed Recreation Center in proximity to other existing buildings near the site.

Building Separation:

a. North: Yard in excess of 30' to the nearest structure entire elevation.
b. East: Yard in excess of 30' to the nearest structure entire elevation.
c. South: Yard in excess of 30' to the nearest structure entire elevation.
d. West: Yard in excess of 30' to the nearest structure entire elevation.

Per Section 506.1 the perimeter of frontage in excess of 20' to the public way or adjacent structure is 702', where the total perimeter of the proposed structure is 702'.

- Use Equation 5-2, to determine the allowable percentage of area increase.

$I_f$= 100 (F/P – 0.25) * w/30

$I_f$= 100 (659'/659' – 0.25) * 30/30

$I_f$= 75%

**Therefore, the allowable area increase for building frontage separation is 75%**

### B. ALLOWABLE AREA INCREASES:

Basic Allowable Area:

Assume Type II-B Construction with A-3 occupancy group, and determine the allowable floor area per floor for the building based on the building's type of construction and major occupant use, per Table 503.

| Occupancy | Construction Type | Basic Allowable Floor Area |
|---|---|---|
| A-3 | Type II B | 9,500 |

Frontage Increase - Section 506.2:

Assume Type II-B Construction with A-3 occupancy group, and determine the allowable floor area per floor for the building based on the building's type of construction and major occupant use, per Table No. 5-B.

| Occupancy | Basic Allowable Floor Area For II-B Construction | With Frontage Increase *(+75% 506.2)* |
|---|---|---|
| A-3 | 9,500 SF | 16,625 SF |

Automatic Sprinkler System - Section 506.3:

| Occupancy | Basic Allowable Floor Area For II-B Construction | With Sprinkler Increase *(+200% 506.3)* |
|---|---|---|
| A-3 | 9,500 SF | 19,000 SF |

Allowable Area Calculation (Equation 5-1):

$A_a=A_t+(A_t I_f/100)+(A_t I_s/100)$
$A_a$=9,500+(9,500*75/100)+(9,500*200/100)
$A_a$=9,500+7,125+19,000
$A_a$=35,625
**Total Allowable Area = 35,625 GSF**

5. Area Proposed
**Proposed Total Area = 19,360gsf < 35,625 gsf Allowable**

### C. ALLOWABLE HEIGHT AND NUMBER OF STORIES

Allowable height and number of stories as determined by Table 503

| Occupancy Group | Allowable Height* | Proposed Height | Allowable No. of stories* | Proposed No. of stories |
|---|---|---|---|---|
| A-3 | 75 ft | 40 ft | 3 | 1 |

**504.2 Automatic sprinkler system increase**. Where a building is equipped throughout with an approved automatic sprinkler system in accordance with Section 903.3.1.1, the value specified in Table 503 is increased by 20 feet and the maximum number of stories is increased by one story. These increases are permitted in addition to the area increase in accordance with Sections 506.2 and 506.3.

### D. EXTERIOR WALL & OPENING PROTECTION

Construction Classification
602.2 Types I and II
Types I and II construction are those types of construction in which the building elements listed in Table 601 are of noncombustible materials.

For Type II-B construction, Table 601 lists the following required fire-resistive ratings:

| Building Element | Hour Rating | Reference |
|---|---|---|
| Structural Frame | 0 | See notes 1 and 2 below |
| Bearing Walls - Exterior | 0 | Table 601 is more restrictive than Table 602 |
| Bearing Walls - Interior | 0 | See notes 1 and 2 below |
| Non-bearing Walls - Exterior | 0 | Table 602 |
| Non-bearing Walls - Interior | 0 | |
| Floor Construction | 0 | Includes supporting beams and joists |
| Roof Construction | 0 | |

Table 602 (Type II-B, Group A-3) Fire Separation

| Fire separation distance (feet) | Hour rating |
|---|---|
| x < 5 | 1 |
| x >= 5, x < 10 | 1 |
| x >=10, x < 30 | 1 |
| x >= 30 | 0 |

### E. OCCUPANCY AND MEANS OF EGRESS:

Building occupant load is calculated below based on the occupant load factors listed in Table 1004.1.2. Number of exits required was determined based on tables 1014.1 and 1018.4.

| Space | Area | No. of Occupants | Exits Required |
|---|---|---|---|
| Entry Lobby/Lounge | 1500 | 215 | 2 |
| Reception/Access Control | 170 | 2 | 1 |
| Locker Rooms - Men | 920 | 19 | 1 |
| Locker Rooms - Women | 920 | 19 | 1 |
| Unisex/Assisted Changing Room (2) | 230 | 1 | 1 |
| Director's Office | 114 | 2 | 1 |
| Open Work Area for 2 People | 100 | 2 | 1 |
| Work/Copy Room | 260 | 3 | 1 |
| Multi-Use / Party Room | 1040 | 70 | 1 |
| Pool Office | 122 | 2 | 1 |
| Lifeguard Office | 102 | 2 | 1 |
| Natatorium (*occupancy =deck + pool) | 10460 | *427 | 2 |
| Deck Area | 4660 | *(311)* | |
| Pool Surface Area | 5800 | *(116)* | |
| Pool Mechanical | 940 | 4 | 1 |
| Pool Storage | 280 | 1 | 1 |
| General Mechanical | 368 | 2 | 1 |
| Miscellaneous, walls, circulation | 1834 | -- | -- |
| **Building Total** | **19360** | **771** | **3** |

**Egress Width**

Egress widths were calculated based on Table 1005.1 for all spaces requiring more than 2 exits.

**Natatorium: 427 x 0.15 = 64.1" or 5-4" total exit width in 2 separate exits**
**Building Overall: 771 x 0.15 = 115.7" or 9'-9" total exit width in 3 separate exits**

### F. ACCESSIBILITY:

Accessibility to buildings or portions of buildings shall be provided for Group A Occupancies as required by 1998 ANSI/CABO A117.1 and Federal Accessibility Guidelines.

*Facilities Standards for the Public Building Service PBS--P100 (March 2005) establishes an additional requirement that at least one automatic or power-assisted door complying with section 404.3 of ABAAS be provided at each accessible entrance required by section F206.4.1 of ABAAS.*

### G. PLUMBING FIXTURE CALCULATIONS

Occupancy Classification: Assembly
Use Group : A-3, ...gymnasiums.
No. of Occupants : 771
Male : 386
Female : 386

Table 2902.1 Minimum number of required plumbing facilities:

| | Male | Female | Total |
|---|---|---|---|
| Water Closets Required | 4 | 6 | 10 |
| Lavatories Required | 2 | 2 | 4 |
| Showers Required | | | 0 |
| Drinking Fountains Required | | | 2 |
| Service Sinks Required | | | 1 |

Number of provided plumbing facilities:

| | Male | Female | Universal | Total | Notes |
|---|---|---|---|---|---|
| Water Closets Provided | 5* | 5 | 2 | 12 | *3 are urinals |
| Lavatories Provided | 3 | 3 | 2 | 8 | |
| Showers Provided | 6 | 6 | 2 | 14 | |
| Drinking Fountains Provided | | | | 2 | |
| Service Sinks Provided | | | | 1 | |

## GENERAL NOTES

1. ALL WORK SHALL BE DONE IN ACCORDANCE WITH THE 2003 IBC AND ALL NATIONAL, STATE, AND LOCAL CODES AND AGENCIES HAVING JURISDICTION. IT SHALL BE THE RESPONSIBILITY OF THE GENERAL CONTRACTOR AND RESPECTIVE SUBCONTRACTORS TO BUILD TO SATISFY THESE CODES AND CALL FOR ALL NECESSARY INSPECTIONS.
2. REFER TO PROJECT SPECIFICATIONS FOR FURTHER DEFINITION OF THE WORK.
3. THE CONTRACTOR SHALL VERIFY ALL CONDITIONS AT THE SITE AND REPORT ALL DISCREPANCIES TO THE ARCHITECT BEFORE PROCEEDING WITH THE WORK. DO NOT SCALE DRAWINGS. CONTACT ARCHITECT FOR CLARIFICATION IN THE EVENT OF ANY DISCREPANCY IN THE CONSTRUCTION DOCUMENTS OR ANY AMBIGUITY OF ARCHITECTURAL INTENT.
4. ALL LEGAL EXITS SHALL BE OPERABLE FROM THE INSIDE WITHOUT THE USE OF A KEY OR ANY SPECIAL KNOWLEDGE OR EFFORT.
5. UNLESS DIMENSIONED OTHERWISE, DOOR LOCATIONS SHALL BE 4" FROM FINISH WALL TO EDGE OF DOOR OPENING.
6. THE LARGEST SCALE DRAWING SHALL GOVERN OVER ALL OTHER DRAWINGS.
7. "F.V." ON DRAWINGS REFERS TO FIELD VERIFICATION FOR CORRECT DIMENSIONS AND CONDITIONS. NOTIFY ARCHITECT OF ANY DISCREPANCIES.
8. CFCI – CONTRACTOR FURNISHED CONTRACTOR INSTALLED
OFCI – OWNER FURNISHED CONTRACTOR INSTALLED
OFOI – OWNER FURNISHED OWNER INSTALLED
9. PROVIDE BACKING PLATES IN WALL PER MANUFACTURER'S RECOMMENDATIONS FOR ALL WALL MOUNTED EQUIPMENT AND CASEWORK. FOLLOW ALL RECOMMENDED INSTALLATION PROCEDURES OF THE MANUFACTURER FOR THEIR SPECIFIC PRODUCTS. NOTIFY THE ARCHITECT OF ALL DISCREPANCIES WITH THE CONSTRUCTION DOCUMENTS AS NOTED ABOVE. FIELD VERIFY ALL DIMENSIONS AND CONDITIONS WHICH RELATE TO EXISTING CONDITIONS. REPORT ANY DISCREPANCIES TO ARCHITECT. SEE SHEET A9.01 FOR BACKING PLATE CRITERIA.
10. ALL PLAN DIMENSIONS ARE TO FACE OF STUD FRAMING OR FACE OF MASONRY UNLESS OTHERWISE NOTED.
11. COORDINATE VENT AND LOUVER PENETRATIONS WITH MECHANICAL CONTRACTOR.
12. LOCATE ALL PLUMBING IN PROTECTED AREAS TO AVOID FREEZING OF PIPES AND TRAPS.
13. ALL ELEVATIONS SHOWN ON PLANS ARE BUILDING ELEVATIONS (T.O. CONCRETE SLAB AT EVENT LEVEL = 100'-0")
14. PROVIDE FIRE EXTINGUISHERS AS SHOWN ON THE DRAWINGS.
15. PAINT ALL EXPOSED CONDUIT, DUCTWORK, PIPING, ETC...., IN ALL FINISHED SPACES.
16. PAINT ALL EXPOSED METAL ON EXTERIOR OF BUILDING U.O.N., INCLUDING BUT NOT LIMITED TO CONDUIT, PIPING, GAS PIPING, FLASHING, MECH. FLUES AND DUCTS, LINTELS, HOLLOW METAL FRAMING AND DOORS, STEEL, AND MECH. EQUIPMENT.
17. PROVIDE ACCESS PANELS AT LOCATIONS INDICATED AND AS REQUIRED FOR ACCESS TO EQUIPMENT AND DEVICES INCLUDING, BUT NOT LIMITED TO MECHANICAL, PLUMBING, FOOD SERVICE, AND ELECTRICAL WORK.


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NOTICE OF EXTENDED PAYMENT PROVISION: THIS CONTRACT ALLOWS THE OWNER TO MAKE PAYMENT WITHIN 45 DAYS AFTER SUBMISSION OF AN UNDISPUTED REQUEST FOR PAYMENT

STATE OF NEW MEXICO
JOHN QUINN PATE
NO. 1784
REGISTERED ARCHITECT
6/24/07

| Issues/Revisions: | Date: |
|---|---|
| Bid Document | 6-24-07 |

Raton Aquatics Center
Raton, New Mexico

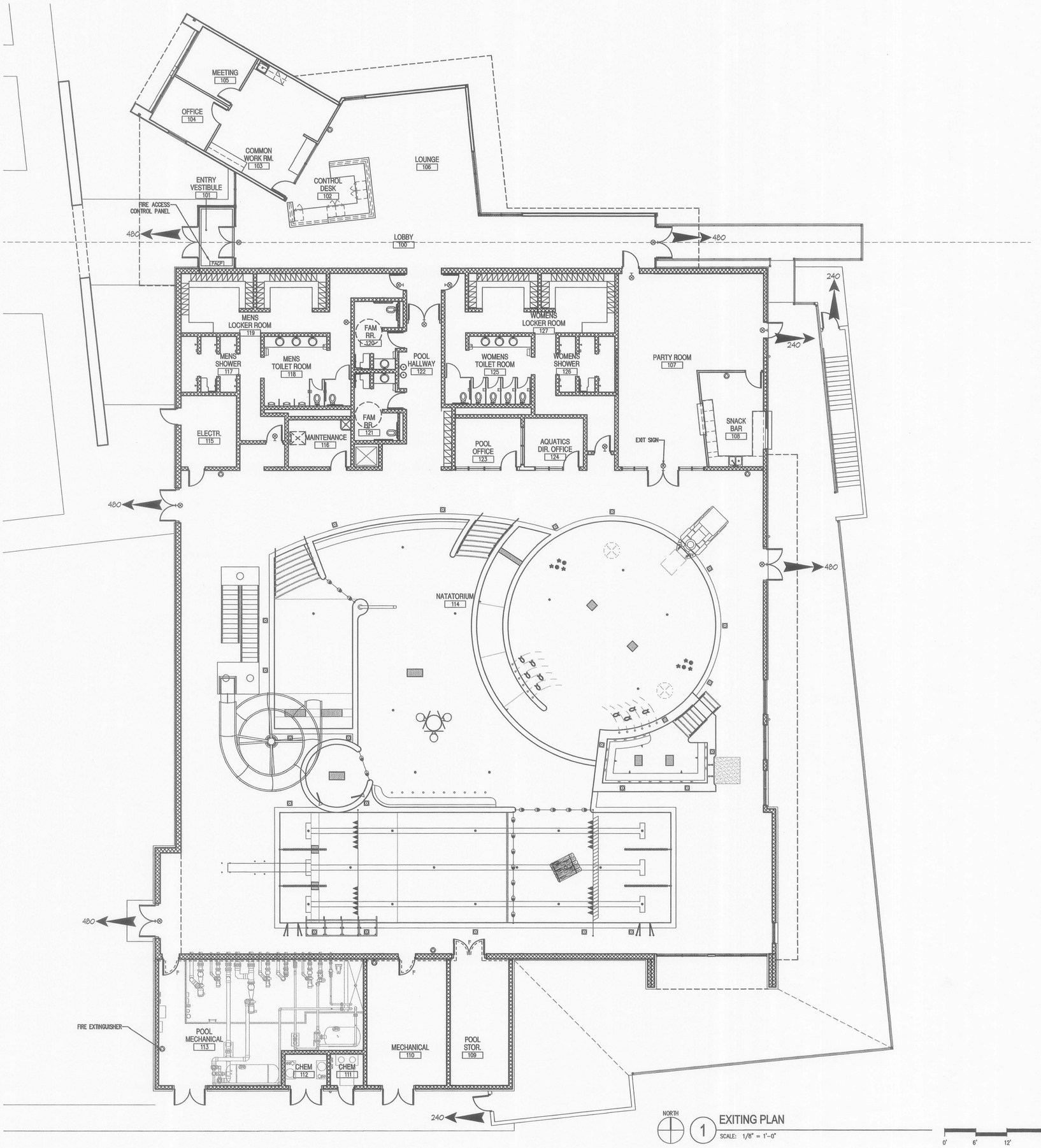
MCA Project No.: RAT 051-12

CODE ANALYSIS & NOTES

PROJECT ARCHITECT: John Quinn Pate, RA

Drawn by: MCA/SCD
Checked by: JQP

G0.02




BUILDING SHALL BE PROTECTED THROUGHOUT BY AN AUTOMATIC SPRINKLER SYSTEM IN ACCORDANCE WITH SECTION 903.3.1.1

| | |
|---|---|
| FIRE SPRINKLER SYSTEM | DRAWINGS TO BE PROVIDED BY FIRE PROTECTION CONTRACTOR |
| FIRE DETECTION AND ALARMS | DRAWINGS TO BE PROVIDED BY FIRE PROTECTION CONTRACTOR |

FIRE EXTINGUISHERS PER IFC SECTION 906

SEE G1.01 FOR FIRE HYDRANT LOCATIONS

## FIRE PROTECTION NOTES

1. SEE ELECTRICAL FOR EMERGENCY EGRESS LIGHTING
2. DOOR HARDWARE: PANIC HARDWARE IS PROVIDED AT EXIT DOORS AND EXITS FROM ASSEMBLY AREAS
3. SEE PLUMBING PLAN FOR FIRE PROTECTION SERVICE INFORMATION
4. SEE SPECIAL SYSTEMS PLAN FOR FIRE DETECTION & ALARM INFORMATION
5. SEE FIRE PROTECTION PLAN FOR NOTES REGARDING FIRE SUPPRESSION & FIRE DETECTION & ALARM INFORMATION

## LEGEND

- FIRE EXTINGUISHER MULTI-PURPOSE, 4A-60B:C
- MEANS OF EGRESS (CAPACITY NOTED)
- ILLUMINATED EXIT SIGN
- FACP — FIRE ALARM CONTROL PANEL
- EXTENT OF ROOF PROJECTION
- 1 HR FIRE BARRIER
- 1 HR FIRE RATED ASSEMBLY

## General Notes

A. FIRE PROTECTION REQUIREMENTS INCLUDE DESIGNING, PROVIDE AND TESTING OF FIRE SPRINKLER SYSTEM CONSTRUCTION, FIRE DETECTION SYSTEM AND FIRE ALARM SYSTEM.

B. FIRE PROTECTION PLANS MUST BE STAMPED BY STATE CERTIFIED PROFESSIONAL ENGINEER.

C. FIRE PROTECTION CONTRACTOR SHALL DESIGN, FABRICATE AND INSTALL ALARM SYSTEM PER NFPA 72 AND OTHER APPLICABLE LOCAL CODES. FIRE PROTECTION CONTRACTOR IS RESPONSIBLE FOR OBTAINING APPROVALS AND COORDINATING WITH AUTHORITY HAVING JURISDICTION PRIOR TO INSTALLING.

D. WIRE ALL FIRE ALARM PULL BOXES AND HORN/STROBES TO FACP PER MANUFACTURER RECOMMENDATION. PROGRAM AND TEST FIRE ALARM SYSTEM PER OWNER/FIRE AUTHORITY REQUIREMENTS.

E. COORDINATE ALL FIRE ALARM/SECURITY WITH LIGHTING AND MECHANICAL CEILING PLANS.

F. FINAL CONFIGURATION, LOCATION AND QUANTITY OF COMPONENTS ARE TO BE DETERMINED BY AUTHORITY HAVING JURISDICTION.

G. SEE BUILDING CRITERIA, G0.02 FOR OCCUPANCY AND CONSTRUCTION TYPE, SEE G0.03 FOR EGRESS INFORMATION AND PORTABLE FIRE EXTINGUISHERS.

H. THE FIRE ALARM SYSTEM IS TO BE COMPATIBLE WITH THE SECURITY SYSTEM

I. THE FIRE ALARM SYSTEM SHALL HAVE VOICE EVAC CAPABILITIES

J. RUN WIRE TO HORN STOBES IN CONDUIT IN EXPOSED/NON-ACCESSIBLE AREAS TO FACILITATE FUTURE UPGRADE TO A VOICE EVAC SYSTEM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STATE OF NEW MEXICO
JOHN QUINN PATE
No. 7784
REGISTERED ARCHITECT
6/24/07

| Issues/Revisions: | Date: |
|---|---|
| Bid Document | 6-24-07 |

Raton Aquatics Center
Raton, New Mexico

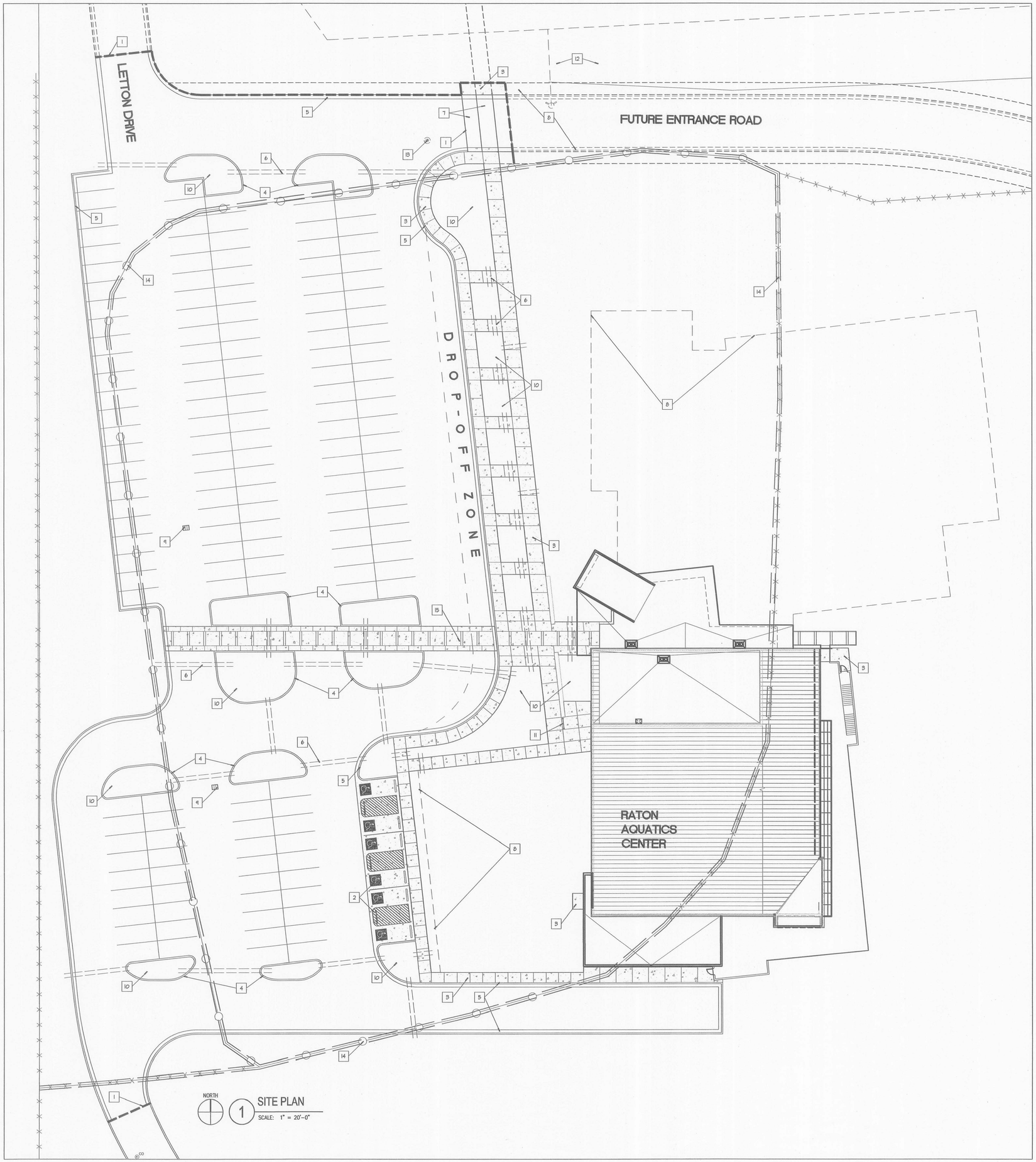
MCA Project No.: RAT 051-12

EGRESS PLAN & NOTES

PROJECT ARCHITECT: John Quinn Pate, RA

Drawn by: JSA
Checked by: JQP

G0.03




## GENERAL NOTES

1. SEE E2.10 FOR SITE LIGHTING
2. GRAVEL PARKING SURFACE SEE C1.04, BASE BID. ADDED ALTERNATE #3 PAVE WITH ASPHALT AND STRIPE, SEE C1.07

## SITE PLAN

1. LIMIT OF ROADWAY, SIDEWALKS, AND PARKING LOT
2. UNIVERSAL ACCESSIBLE PARKING, SEE C1.05
3. CONCRETE SIDEWALK 4"" THICK, SEE C1.04
4. CONCRETE HEADER CURB, SEE C1.04
5. CONCRETE CURB AND GUTTER, SEE C1.04
6. 2 - 4" PVC SLEEVES @ 24" BELOW GRADE, SEE C1.04
7. SPEED PLATFORM, RAMP UP CONCRETE AND GUTTER TO 6" THICK CONCRETE WALK, SEE C1.04
8. FUTURE CONSTRUCTION, NIC FOR REFERENCE ONLY
9. DRAINAGE STRUCTURE SEE C1.05
10. PLANTING AREAS SEE C1.03 FOR LAYOUT
11. BIKE RACK, SEE C1.05
12. EXISTING ASPHALT TO REMAIN
13. MAN HOLE SEE C1.05
14. REMOVE, AND DISPOSE OF CHAIN LINK FENCING
15. CONCRETE SIDEWALK 6" THICK W/ REINFORCED 6X6X12.9XW2.9 WELDED WIRE FABRIC @ PARKING LOT SEE C1.04

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KENT S. FREITER NEW MEXICO 9182 REGISTERED PROFESSIONAL ENGINEER

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|---|---|
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Raton Aquatics Center
Raton, New Mexico

MCA Project No.: RAT 051-12

SITE PLAN

PROJECT ARCHITECT: John Quinn Pate, RA

Drawn by: JAV
Checked by: RPA

C0.01

## GENERAL NOTES

1. VERIFY LOCATION OF EXIST. WATERLINE TO AGRICULTURAL BARN AND PROTECT DURING CONSTRUCTION.
2. SEE E2.10 FOR SITE LIGHTING
3. SEE C1.02 FOR STORMDRAINS
4. NEW 8" WATERLINE TO HAVE 6' MIN. BURY

## KEYED NOTES [#]

1. END OF PARKING LOT, GRAVEL PARKING SURFACE. - BASE BID. ASPHALT PAVING BID ALT #3.
2. NEW STORM SEWER. SEE SHT. C1.02 FOR P&P.
3. NEW DROP INLET WITH 2' CONCRETE APRON AND TRAFFIC RATED GRATE. SEE SHT. C1.02 FOR P&P. SEE SHT. C1.05 FOR DETAIL.
4. NEW STORM MANHOLE. SEE SHT. C1.02 FOR P&P. SEE SHT. C1.05 FOR DETAIL.
5. 8" PVC WATERLINE.
6. FIRE HYDRANT ASSEMBLY.
   N= 2142328.15
   E= 506828.83
   SEE SHT. C1.04 FOR DETAIL.
7. FIRE HYDRANT ASSEMBLY.
   N= 2142599.78
   E=506862.66
   SEE SHT. C1.04 FOR DETAIL.
8. 3" WATER METER WITH METER VAULT.
   N= 2142221.48
   E= 506886.90
   SEE P2.10 FOR PLAN.
9. INSTALL 1-45°, 8" BEND, 1-22.5°, 8" BEND & 1-11.25°, 8" BEND WITH RESTRAINED JOINTS
   N=2142207.31
   E=506756.64
10. INSTALL 1-8" X 8" X 8" TEE W/ 8" GATE VALVE WITH RESTRAINED JOINTS
    N=2142207.31
    E=506816.33
11. INSTALL 1-45°, 8" BEND WITH RESTRAINED JOINTS
    N=2142332.14
    E=506816.33
12. INSTALL 1-45°, 8" BEND & 1-11.25°, 8" BEND WITH RESTRAINED JOINTS
    N=2142370.04
    E=506861.87
13. INSTALL 1- 8" END CAP W/ RESTAINTED JOINTS
14. CONTRACTOR TO GRADE TIEBACK TO ENSURE POSITIVE DRAINAGE IN DIRECTIO OF ESTABLISHED FLOW.
15. FIRE DEPARTMENT CONNECTION. SEE SHT. P2.01.
16. 6" FIRE SERVICE INTO BLDG. SEE SHT. P2.01.

## LEGEND

- ASPHALT PAVING - BID ALTERNATE #3.
- 4" THICK CONCRETE SIDEWALK
- INDICATES DIRECTION OF FLOW.
- INDICATES PAVEMENT BOUNDARY.

CAUTION:
NOTE THAT ALL EXISTING UTILITIES MAY NOT BE SHOWN. EXISTING SERVICE CONNECTIONS ARE NOT SHOWN. ANY EXISTING UTILITIES THAT ARE SHOWN ARE SHOWN IN APPROXIMATE LOCATION ONLY. IT SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR TO CONTACT ALL THE UTILITY OWNERS AND TO CONDUCT ALL NECESSARY FIELD INVESTIGATIONS PRIOR TO ANY EXCAVATION TO DETERMINE THE ACTUAL LOCATION OF UTILITIES AND OTHER IMPROVEMENTS.

NORTH

1 GRADING PLAN
SCALE: 1" = 30'-0"

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KENT S. FREITER NEW MEXICO 8182 REGISTERED PROFESSIONAL ENGINEER

| Issues/Revisions: | Date: |
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| Bid Document | 6-24-07 |

Raton Aquatics Center
Raton, New Mexico

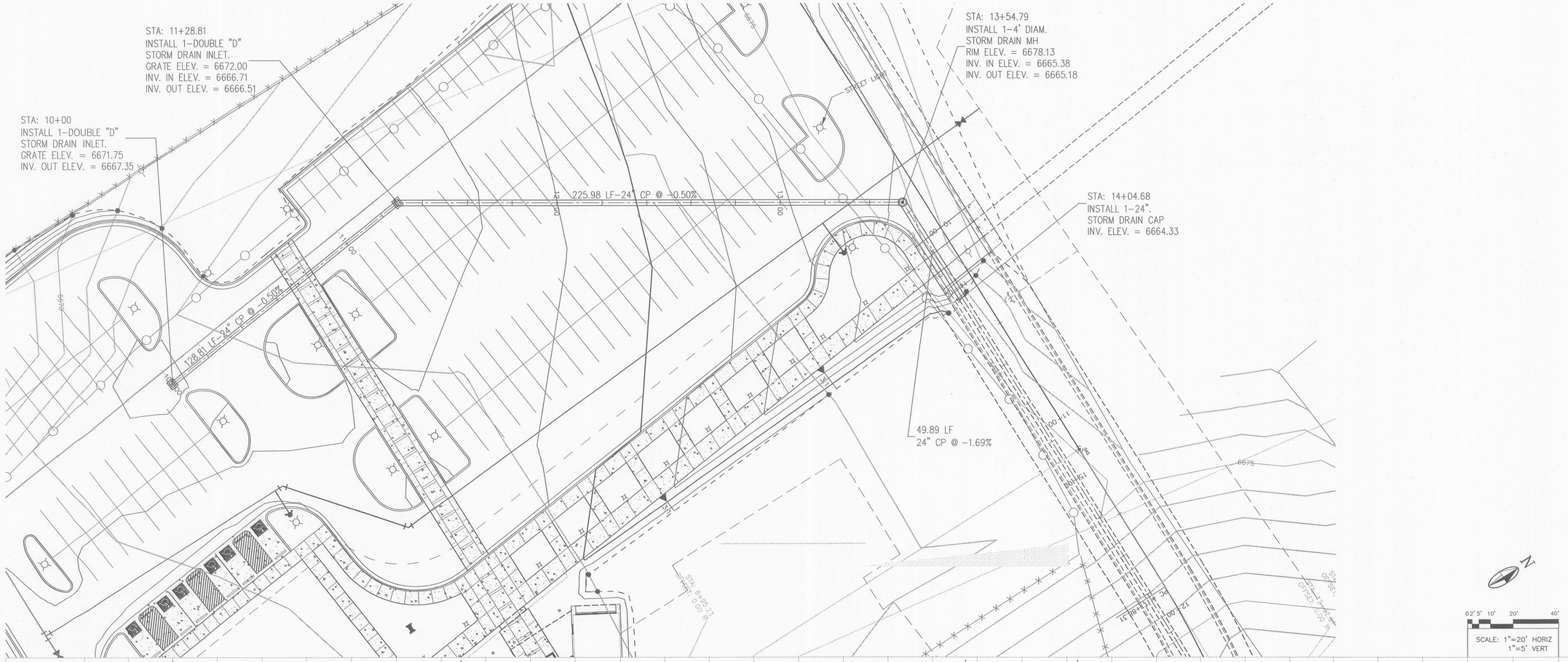
MCA Project No.: RAT 051-12

GRADING PLAN

PROJECT ARCHITECT: John Quinn Pate, RA

Drawn by: JAV
Checked by: RPA

C1.01

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KENT S. FREIER
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6/27/07

| Issues/Revisions: | Date: |
|---|---|
| Bid Document | 6-24-07 |

Raton Aquatics Center
Raton, New Mexico

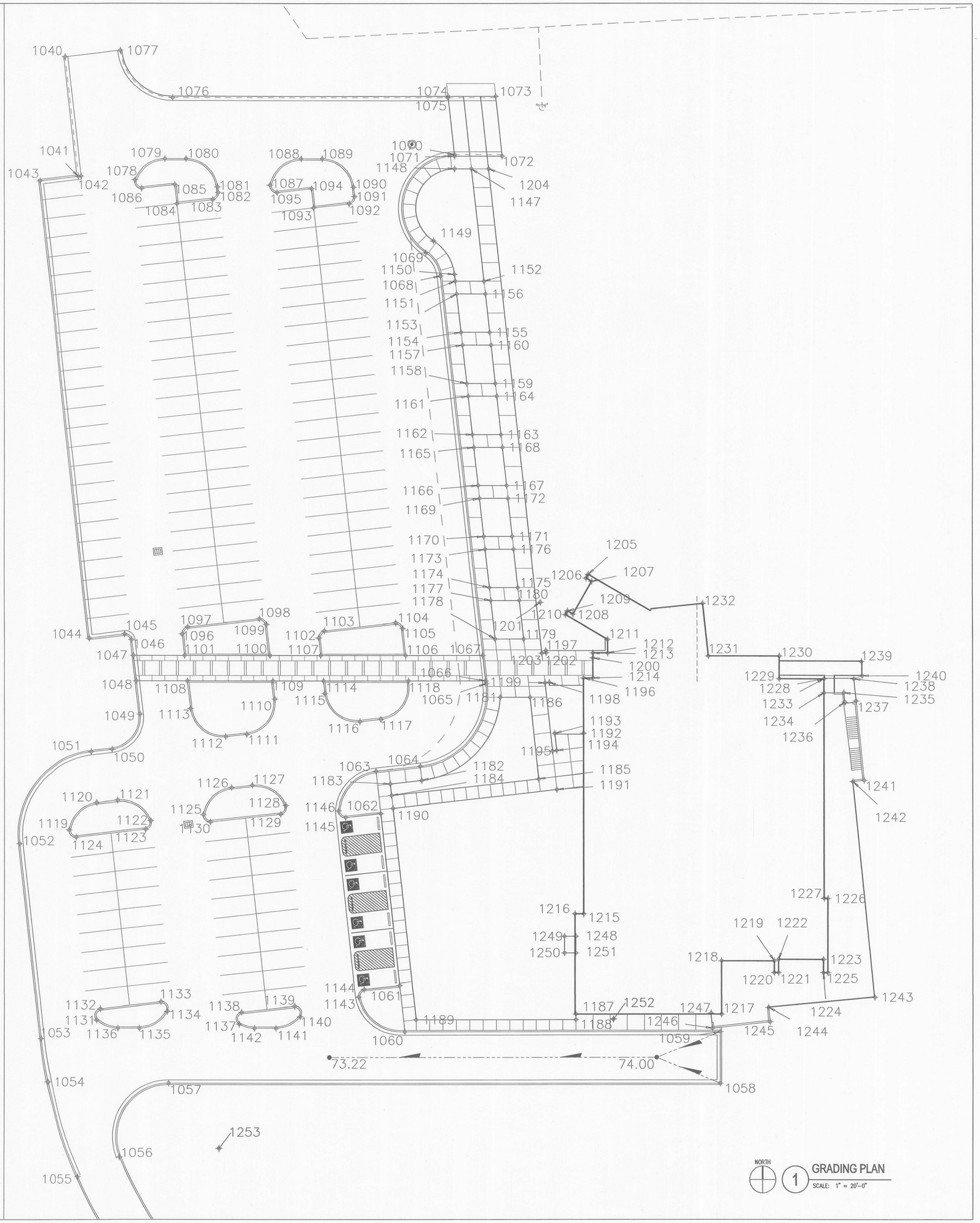
MCA Project No.: RAT 051-12

STORM DRAIN P&P
STA. 10+00 TO
STA. 15+00

PROJECT ARCHITECT: John Quinn Pate, RA

Drawn by: M/C STAFF
Checked by: RPA

C1.02




NORTH

1 GRADING PLAN

SCALE: 1" = 20'-0"

* INDICATES BENCHMARK

POINT TABLE

| PNT.NO | NORTHING | EASTING | ELEV. |
|---|---|---|---|
| 1040 | 2142675.01 | 506693.19 | 6678.60 |
| 1041 | 2142618.85 | 506699.45 | 6677.39 |
| 1042 | 2142619.00 | 506700.77 | 6677.40 |
| 1043 | 2142616.78 | 506680.90 | 6677.39 |
| 1044 | 2142402.11 | 506704.82 | 6672.44 |
| 1045 | 2142403.99 | 506721.72 | 6672.44 |
| 1046 | 2142401.34 | 506725.03 | 6672.46 |
| 1047 | 2142393.96 | 506725.85 | 6672.47 |
| 1048 | 2142381.96 | 506727.19 | 6672.47 |
| 1049 | 2142366.37 | 506728.93 | 6672.47 |
| 1050 | 2142349.80 | 506715.69 | 6672.50 |
| 1051 | 2142348.69 | 506705.75 | 6672.50 |
| 1052 | 2142305.61 | 506671.31 | 6672.55 |
| 1053 | 2142214.53 | 506681.46 | 6673.02 |
| 1054 | 2142194.32 | 506684.71 | 6673.12 |
| 1055 | 2142149.92 | 506699.32 | 6670.82 |
| 1056 | 2142159.04 | 506719.29 | 6670.82 |
| 1057 | 2142193.65 | 506742.37 | 6673.10 |
| 1058 | 2142193.65 | 507003.46 | 6674.38 |
| 1059 | 2142217.65 | 507003.46 | 6674.38 |
| 1060 | 2142217.65 | 506854.18 | 6674.12 |
| 1061 | 2142239.32 | 506851.76 | 6674.62 |
| 1062 | 2142319.65 | 506842.81 | 6674.62 |
| 1063 | 2142339.57 | 506840.59 | 6673.89 |
| 1064 | 2142341.90 | 506861.46 | 6673.56 |
| 1065 | 2142380.56 | 506892.37 | 6673.95 |
| 1066 | 2142381.96 | 506892.21 | 6673.95 |
| 1067 | 2142393.96 | 506890.87 | 6673.95 |
| 1068 | 2142572.11 | 506871.02 | 6676.77 |
| 1069 | 2142583.05 | 506864.23 | 6676.90 |
| 1070 | 2142629.07 | 506877.70 | 6678.15 |
| 1071 | 2142628.40 | 506877.78 | 6678.65 |
| 1072 | 2142628.40 | 506900.13 | 6678.39 |
| 1073 | 2142656.40 | 506897.01 | 6678.90 |
| 1074 | 2142656.40 | 506874.66 | 6678.90 |
| 1075 | 2142655.73 | 506874.73 | 6678.40 |
| 1076 | 2142655.73 | 506744.54 | 6678.40 |
| 1077 | 2142677.96 | 506719.69 | 6678.60 |
| 1078 | 2142617.16 | 506726.64 | 6677.40 |
| 1079 | 2142627.15 | 506740.78 | 6677.40 |
| 1080 | 2142627.15 | 506750.84 | 6677.40 |
| 1081 | 2142613.82 | 506765.75 | 6677.40 |
| 1082 | 2142611.18 | 506766.04 | 6677.40 |
| 1083 | 2142607.86 | 506763.39 | 6677.40 |
| 1084 | 2142605.98 | 506746.50 | 6677.40 |
| 1085 | 2142614.93 | 506745.50 | 6677.40 |
| 1086 | 2142613.17 | 506729.80 | 6677.40 |
| 1087 | 2142614.74 | 506790.40 | 6677.40 |
| 1088 | 2142627.15 | 506805.17 | 6677.40 |
| 1089 | 2142627.15 | 506815.24 | 6677.40 |
| 1090 | 2142613.82 | 506830.14 | 6677.40 |
| 1091 | 2142609.32 | 506830.65 | 6677.40 |
| 1092 | 2142606.01 | 506828.00 | 6677.40 |
| 1093 | 2142604.13 | 506811.10 | 6677.40 |
| 1094 | 2142613.07 | 506810.10 | 6677.40 |
| 1095 | 2142611.24 | 506793.69 | 6677.40 |
| 1096 | 2142404.00 | 506748.89 | 6672.44 |
| 1097 | 2142407.32 | 506751.54 | 6672.44 |
| 1098 | 2142411.08 | 506785.33 | 6672.57 |
| 1099 | 2142408.43 | 506788.64 | 6672.57 |
| 1100 | 2142393.96 | 506790.25 | 6673.04 |
| 1101 | 2142393.96 | 506750.01 | 6672.68 |
| 1102 | 2142402.15 | 506813.49 | 6673.05 |
| 1103 | 2142405.46 | 506816.14 | 6673.05 |
| 1104 | 2142409.23 | 506849.93 | 6673.29 |
| 1105 | 2142406.58 | 506853.24 | 6673.29 |
| 1106 | 2142393.96 | 506854.65 | 6673.62 |
| 1107 | 2142393.96 | 506814.40 | 6673.26 |
| 1108 | 2142381.96 | 506751.34 | 6672.68 |
| 1109 | 2142381.96 | 506791.59 | 6673.04 |
| 1110 | 2142373.46 | 506792.54 | 6672.66 |
| 1111 | 2142356.89 | 506779.29 | 6672.50 |
| 1112 | 2142355.78 | 506769.35 | 6672.42 |
| 1113 | 2142369.03 | 506752.78 | 6672.57 |
| 1114 | 2142381.96 | 506815.74 | 6673.26 |
| 1115 | 2142376.12 | 506816.39 | 6673.09 |
| 1116 | 2142362.87 | 506832.96 | 6673.17 |
| 1117 | 2142363.98 | 506842.90 | 6673.30 |
| 1118 | 2142381.96 | 506855.99 | 6673.62 |
| 1119 | 2142312.05 | 506695.22 | 6672.32 |
| 1120 | 2142324.84 | 506708.41 | 6672.39 |
| 1121 | 2142325.95 | 506718.34 | 6672.15 |
| 1122 | 2142316.38 | 506734.03 | 6671.97 |
| 1123 | 2142312.33 | 506731.55 | 6671.95 |
| 1124 | 2142308.65 | 506698.52 | 6672.29 |
| 1125 | 2142319.14 | 506758.82 | 6672.17 |
| 1126 | 2142331.93 | 506772.01 | 6672.50 |
| 1127 | 2142333.04 | 506781.95 | 6672.92 |
| 1128 | 2142323.47 | 506797.63 | 6672.92 |
| 1129 | 2142319.42 | 506795.16 | 6672.92 |
| 1130 | 2142315.74 | 506762.13 | 6672.12 |
| 1131 | 2142223.24 | 506708.39 | 6672.70 |
| 1132 | 2142228.43 | 506710.08 | 6672.70 |
| 1133 | 2142231.64 | 506738.80 | 6672.70 |
| 1134 | 2142227.24 | 506741.78 | 6672.70 |
| 1135 | 2142219.32 | 506728.56 | 6672.70 |
| 1136 | 2142219.32 | 506718.50 | 6672.70 |
| 1137 | 2142221.20 | 506775.61 | 6672.90 |
| 1138 | 2142226.81 | 506776.74 | 6672.90 |
| 1139 | 2142229.60 | 506801.83 | 6672.90 |
| 1140 | 2142224.70 | 506804.46 | 6672.90 |
| 1141 | 2142219.32 | 506792.95 | 6672.90 |
| 1142 | 2142219.32 | 506782.89 | 6672.90 |
| 1143 | 2142233.90 | 506832.30 | 6674.22 |
| 1144 | 2142237.44 | 506834.92 | 6674.22 |
| 1145 | 2142317.80 | 506826.17 | 6674.22 |

POINT TABLE

| PNT.NO | NORTHING | EASTING | ELEV. |
|---|---|---|---|
| 1146 | 2142320.97 | 506822.84 | 6674.22 |
| 1147 | 2142622.40 | 506885.60 | 6678.79 |
| 1148 | 2142622.40 | 506877.78 | 6678.63 |
| 1149 | 2142588.66 | 506867.85 | 6677.63 |
| 1150 | 2142572.85 | 506877.64 | 6677.40 |
| 1151 | 2142569.63 | 506878.00 | 6677.34 |
| 1152 | 2142569.63 | 506891.48 | 6677.59 |
| 1153 | 2142563.63 | 506878.67 | 6677.22 |
| 1154 | 2142545.63 | 506880.68 | 6676.87 |
| 1155 | 2142545.63 | 506894.16 | 6677.12 |
| 1156 | 2142563.63 | 506892.15 | 6677.47 |
| 1157 | 2142539.63 | 506881.34 | 6676.76 |
| 1158 | 2142521.63 | 506883.35 | 6676.41 |
| 1159 | 2142521.63 | 506896.83 | 6676.66 |
| 1160 | 2142539.63 | 506894.83 | 6677.01 |
| 1161 | 2142515.63 | 506884.02 | 6676.29 |
| 1162 | 2142497.63 | 506886.03 | 6675.94 |
| 1163 | 2142497.63 | 506899.51 | 6676.19 |
| 1164 | 2142515.63 | 506897.50 | 6676.54 |
| 1165 | 2142491.63 | 506886.69 | 6675.83 |
| 1166 | 2142473.63 | 506888.70 | 6675.48 |
| 1167 | 2142473.63 | 506902.18 | 6675.73 |
| 1168 | 2142491.63 | 506900.18 | 6676.08 |
| 1169 | 2142467.63 | 506889.37 | 6675.37 |
| 1170 | 2142449.63 | 506891.38 | 6675.02 |
| 1171 | 2142449.63 | 506904.86 | 6675.26 |
| 1172 | 2142467.63 | 506902.85 | 6675.61 |
| 1173 | 2142443.63 | 506892.04 | 6674.90 |
| 1174 | 2142425.63 | 506894.05 | 6674.56 |
| 1175 | 2142425.63 | 506907.53 | 6674.82 |
| 1176 | 2142443.63 | 506905.53 | 6675.14 |
| 1177 | 2142419.63 | 506894.72 | 6674.53 |
| 1178 | 2142401.63 | 506896.73 | 6674.53 |
| 1179 | 2142401.63 | 506910.21 | 6674.71 |
| 1180 | 2142419.63 | 506908.20 | 6674.78 |
| 1181 | 2142374.29 | 506899.18 | 6674.48 |
| 1182 | 2142335.28 | 506862.20 | 6674.29 |
| 1183 | 2142333.61 | 506847.29 | 6674.39 |
| 1184 | 2142328.15 | 506847.90 | 6674.56 |
| 1185 | 2142335.91 | 506917.53 | 6674.74 |
| 1186 | 2142374.29 | 506913.25 | 6674.65 |
| 1187 | 2142225.94 | 506935.09 | 6675.00 |
| 1188 | 2142223.32 | 506935.09 | 6675.00 |
| 1189 | 2142223.32 | 506859.58 | 6674.68 |
| 1190 | 2142322.19 | 506848.56 | 6674.68 |
| 1191 | 2142330.85 | 506926.15 | 6674.74 |
| 1192 | 2142357.32 | 506938.84 | 6675.00 |
| 1193 | 2142357.32 | 506925.21 | 6674.77 |
| 1194 | 2142349.20 | 506926.11 | 6674.74 |
| 1195 | 2142348.98 | 506924.13 | 6674.74 |
| 1196 | 2142383.24 | 506938.84 | 6675.00 |
| 1197 | 2142396.15 | 506920.88 | 6674.74 |
| 1198 | 2142381.23 | 506922.54 | 6674.77 |
| 1199 | 2142381.00 | 506920.56 | 6674.74 |
| 1200 | 2142392.69 | 506943.27 | 6675.00 |
| 1201 | 2142418.77 | 506918.36 | 6674.95 |
| 1202 | 2142395.14 | 506920.99 | 6674.78 |
| 1203 | 2142394.92 | 506919.01 | 6674.76 |
| 1204 | 2142622.40 | 506893.65 | 6678.77 |
| 1205 | 2142431.73 | 506941.11 | 6675.00 |
| 1206 | 2142430.00 | 506940.11 | 6675.00 |
| 1207 | 2142428.50 | 506942.70 | 6675.00 |
| 1208 | 2142413.16 | 506933.85 | 6675.00 |
| 1209 | 2142414.66 | 506931.25 | 6675.00 |
| 1210 | 2142412.91 | 506930.29 | 6675.00 |
| 1211 | 2142401.37 | 506950.27 | 6675.00 |
| 1212 | 2142394.99 | 506950.27 | 6675.00 |
| 1213 | 2142394.99 | 506943.27 | 6675.00 |
| 1214 | 2142383.24 | 506943.27 | 6675.00 |
| 1215 | 2142272.69 | 506938.84 | 6674.99 |
| 1216 | 2142272.69 | 506934.71 | 6674.90 |
| 1217 | 2142225.94 | 507004.13 | 6675.00 |
| 1218 | 2142250.74 | 507004.13 | 6675.00 |
| 1219 | 2142250.74 | 507029.38 | 6675.00 |
| 1220 | 2142245.28 | 507029.38 | 6675.00 |
| 1221 | 2142245.28 | 507031.46 | 6675.00 |
| 1222 | 2142251.49 | 507031.46 | 6675.00 |
| 1223 | 2142251.49 | 507052.71 | 6675.00 |
| 1224 | 2142245.28 | 507052.71 | 6675.00 |
| 1225 | 2142245.28 | 507054.80 | 6675.00 |
| 1226 | 2142280.03 | 507054.80 | 6675.00 |
| 1227 | 2142280.03 | 507053.01 | 6675.00 |
| 1228 | 2142382.99 | 507053.01 | 6675.00 |
| 1229 | 2142382.99 | 507031.74 | 6675.00 |
| 1230 | 2142393.63 | 507031.74 | 6661.00 |
| 1231 | 2142393.63 | 506997.77 | 6668.00 |
| 1232 | 2142418.19 | 506995.17 | 6675.00 |
| 1233 | 2142382.99 | 507053.01 | 6675.00 |
| 1234 | 2142376.46 | 507053.01 | 6674.88 |
| 1235 | 2142376.47 | 507062.43 | 6661.00 |
| 1236 | 2142372.08 | 507062.92 | 6674.88 |
| 1237 | 2142372.61 | 507068.22 | 6661.00 |
| 1238 | 2142382.99 | 507067.16 | 6661.00 |
| 1239 | 2142391.15 | 507070.76 | 6660.99 |
| 1240 | 2142384.49 | 507071.09 | 6660.93 |
| 1241 | 2142335.31 | 507072.02 | 6674.88 |
| 1242 | 2142334.76 | 507066.71 | 6674.88 |
| 1243 | 2142233.88 | 507076.99 | 6674.88 |
| 1244 | 2142228.96 | 507026.70 | 6674.88 |
| 1245 | 2142222.33 | 507027.38 | 6674.88 |
| 1246 | 2142219.31 | 506999.76 | 6674.89 |
| 1247 | 2142226.32 | 506999.05 | 6675.00 |
| 1248 | 2142262.24 | 506935.09 | 6674.97 |
| 1249 | 2142262.24 | 506929.71 | 6674.91 |
| 1250 | 2142254.40 | 506929.71 | 6674.93 |
| 1251 | 2142254.40 | 506935.09 | 6674.97 |
| *1252 | 2142223.56 | 506952.85 | 6674.97 |
| *1253 | 2142163.10 | 506766.17 | 6674.97 |

NOTE: ALL CURB & GUTTER ELEVATIONS TAKEN ON FLOWLINE.


Molzen-Corbin & Associates

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fax (505) 242-0673

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303 308 0200
FAX 308 0222


NOTICE OF EXTENDED PAYMENT PROVISION: THIS CONTRACT ALLOWS THE OWNER TO MAKE PAYMENT WITHIN 45 DAYS AFTER SUBMISSION OF AN UNDISPUTED REQUEST FOR PAYMENT

| Issues/Revisions: | Date: |
|---|---|
| Bid Document | 6-24-07 |

Raton Aquatics Center
Raton, New Mexico

MCA Project No.: RAT 051-12

GEOMETRIC LAYOUT & POINT TABLE

PROJECT ARCHITECT: John Quinn Pate, RA

Drawn by: JAV
Checked by: RPA

C1.03

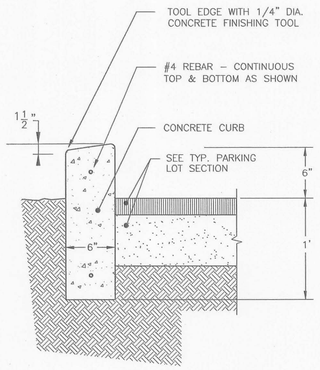
NOTE:

INSTALL EBAA IRON SALES MEGALUG(TM) JOINT RESTRAINTS AT ALL BENDS AND JOINTS WHICH FALL WITHIN THE FOLLOWING LENGTHS OF EACH SIDE TO FITTINGS AS FOLLOWS:

| DIAMETER AND RESTRAINED LENGTHS (FEET) | | |
|---|---|---|
| | WATERLINE | |
| FITTING TYPE | 8–INCH | 6–INCH |
| 90° HORIZONTAL BEND | 20 | 16 |
| 45° HORIZONTAL BEND | 9 | 7 |
| 22.5° HORIZONTAL BEND | 4 | 4 |
| 11.25° HORIZONTAL BEND | 2 | 2 |
| VALVE, DEAD END, OR STUB–OUT | 55 | 42 |
| 45° VERTICAL OFFSET (HIGH SIDE/LOW SIDE) | 23/9 | 18/7 |
| 22.5° VERTICAL OFFSET (HIGH SIDE/LOW SIDE) | 11/4 | 9/4 |
| 11.25° VERTICAL OFFSET (HIGH SIDE/LOW SIDE) | 6/2 | 5/2 |
| | | |
| | | |
| | | |

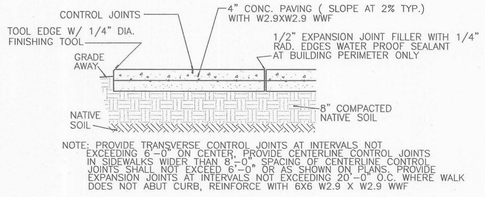
COMMENT:
REFER TO NEXT LARGEST RESTRAINED LENGTH FOR ALL HORIZONTAL BEND FITTING COMBINATIONS.
ADD RESTRAINED LENGTHS FOR ALL HORIZONTAL BEND FITTING COMBINATIONS. FOR EXAMPLE,
THE RESTRAINED LENGTH FOR A 8–INCH 45°–BEND IN COMBO WITH A 11.25°–BEND SHOULD BE 11 FEET.

## PIPE RESTRAINT REQUIREMENTS



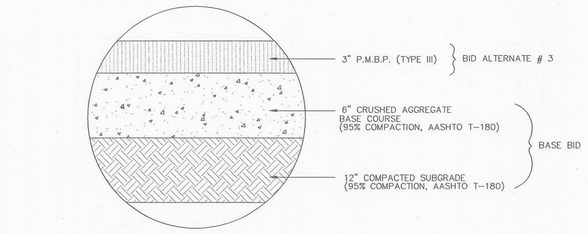

## HEADER CURB DETAIL

SCALE: NONE



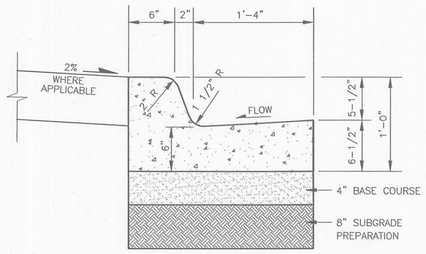

## SIDEWALK DETAIL

SCALE: NONE



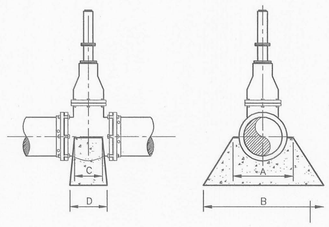

## TYPICAL PARKING LOT ASPHALT SECTION

SCALE: NONE




## STANDARD CURB & GUTTER SECTION

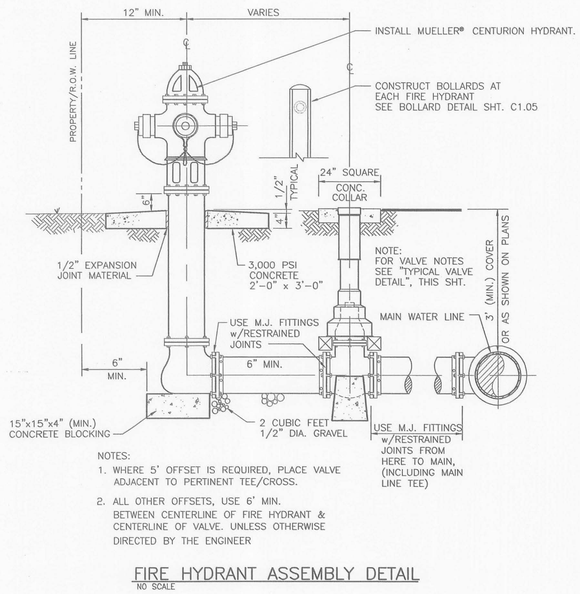
SCALE: NONE




| CONCRETE VALVE SUPPORT TABLE | | | | |
|---|---|---|---|---|
| VALVE SIZE | A | B | C | D |
| 4" | 10" | 20" | 4" | 6" |
| 6" | 12" | 22" | 4" | 8" |
| 8" | 12" | 22" | 4" | 8" |
| 10" | 14" | 24" | 4" | 8" |
| 12" | 16" | 24" | 4" | 8" |
| 14" | 20" | 28" | 6" | 12" |
| 16" | 24" | 36" | 6" | 12" |

## CONCRETE VALVE SUPPORT DETAILS

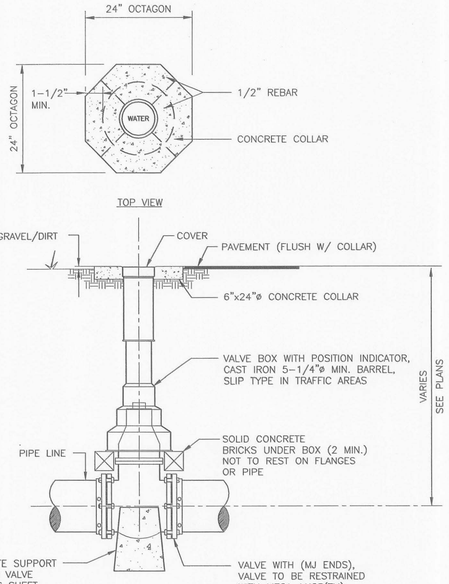
SCALE: NONE




NOTES:
1. WHERE 5' OFFSET IS REQUIRED, PLACE VALVE ADJACENT TO PERTINENT TEE/CROSS.
2. ALL OTHER OFFSETS, USE 6' MIN. BETWEEN CENTERLINE OF FIRE HYDRANT & CENTERLINE OF VALVE. UNLESS OTHERWISE DIRECTED BY THE ENGINEER

## FIRE HYDRANT ASSEMBLY DETAIL

NO SCALE




## TYPICAL VALVE DETAIL

SCALE: NONE

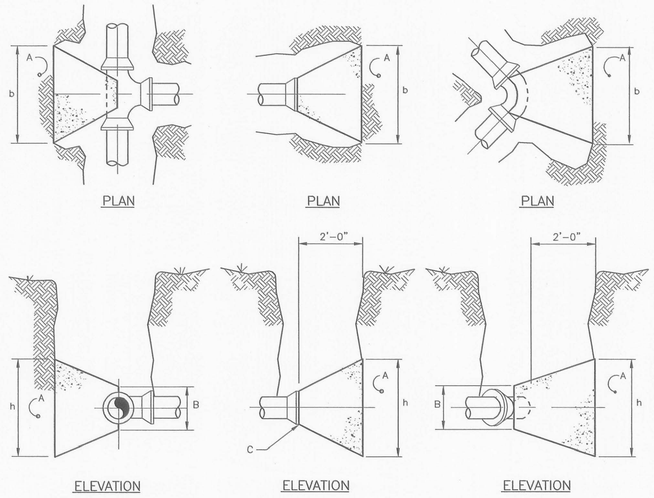
| * CONCRETE BLOCKING TABLE | | | | | |
|---|---|---|---|---|---|
| PIPE SIZE | ELBOW ANGLE | ELBOW (b)DIM. | ELBOW (h)DIM. | TEE OR PLUG (b)DIM. | TEE OR PLUG (h)DIM. |
| 4" | | | 2' | 1' | |
| 4" | 90°–45° | 2' | 2' | | |
| 4" | 22 1/2°–11 1/4° | 2' | 2' | | |
| 6" | | | | 2' | 2' |
| 6" | 90°–45° | 2' | 2' | | |
| 6" | 22 1/2°–11 1/4° | 2' | 2' | | |
| 8" | | | | 3' | 3' |
| 8" | 90° | 3' | 3' | | |
| 8" | 45° | 2' | 2' | | |
| 8" | 22 1/2°–11 1/4° | 2' | 2' | | |
| 10" | | | | 3' | 3' |
| 10" | 90° | 3'–6" | 3'–6" | | |
| 10" | 45° | 3' | 3' | | |
| 10" | 22 1/2°–11 1/4° | 2' | 2' | | |
| 12" | | | | 3'–6" | 3'–6" |
| 12" | 90° | 4' | 4' | | |
| 12" | 45° | 3'–6" | 3'–6" | | |
| 12" | 22 1/2°–11 1/4° | 2' | 2' | | |
| 14" | | | | 4' | 4' |
| 14" | 90° | 5' | 5' | | |
| 14" | 45° | 3'–6" | 3'–6" | | |
| 14" | 22 1/2°–11 1/4° | 3' | 3' | | |
| 16" | | | | 5' | 5' |
| 16" | 90° | 6' | 6' | | |
| 16" | 45° | 4'–6" | 4'–6" | | |
| 16" | 22 1/2°–11 1/4° | 4' | 4' | | |
| 24" | | | | 6' | 6' |
| 24" | 90° | 7' | 7' | | |
| 24" | 45° | 5'–6" | 5'–6" | | |
| 24" | 22 1/2°–11 1/4° | 5' | 5' | | |

CONSTRUCTION NOTES

A. UNDISTURBED EARTH

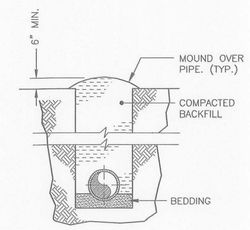
B. O.D. OF PIPE + 8"

C. O.D. OF CAP OR PLUG, MIN. 12" x 12".




## CONCRETE BLOCKING DETAILS

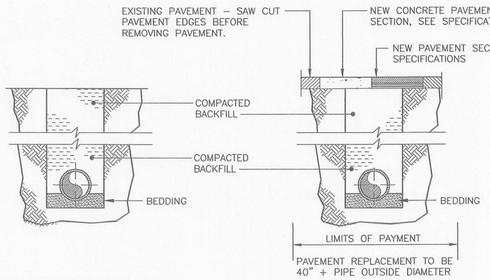
N.T.S.




UNTRAVELED AREAS

BACKFILL COMPACTION (AASHTO T–180):

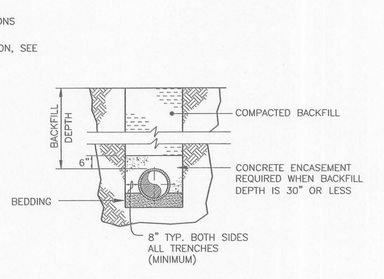
1. COMPACT TO AT LEAST UNDISTURBED NATURAL DENSITY, BUT NOT LESS THAN 85% COMPACTION




UNPAVED ROAD TRENCH
(INCLUDING UNPAVED ALLEYS AND DRIVEWAYS)

BACKFILL COMPACTION (AASHTO T–180):

1. 90% COMPACTION




PAVED ROAD TRENCH

BACKFILL COMPACTION (AASHTO T–180):

1. 90% WITHIN 12" BELOW SUBGRADE SURFACE
2. 95% COMPACTION IN TOP 12" OF SUBGRADE

CONCRETE ENCASEMENT FOR TRAVELED OR UNTRAVELED AREAS

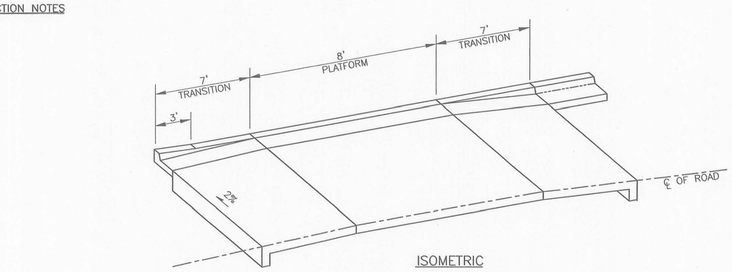
TRAVELED AREAS

GENERAL NOTES FOR TRENCHING:

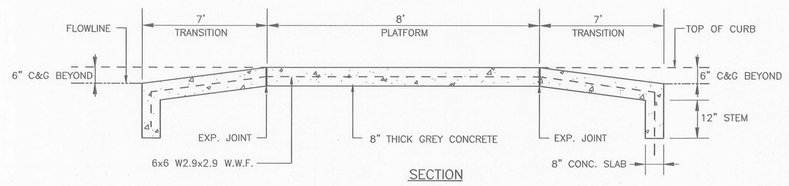
1. PIPE BEDDING REQUIREMENTS, SEE SPECIFICATIONS
2. PIPE IDENTIFICATION TAPE REQUIREMENTS, SEE SPECIFICATIONS

## STANDARD TRENCHING DETAILS

SCALE: NONE




ISOMETRIC




SECTION

## SPEED PLATFORM DETAIL

SCALE: NONE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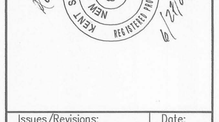
FAX 308 0222


NOTICE OF EXTENDED PAYMENT PROVISION: THIS CONTRACT ALLOWS THE OWNER TO MAKE PAYMENT WITHIN 45 DAYS AFTER SUBMISSION OF AN UNDISPUTED REQUEST FOR PAYMENT




| Issues/Revisions: | Date: |
|---|---|
| Bid Document | 6–24–07 |
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Raton Aquatics Center
Raton, New Mexico

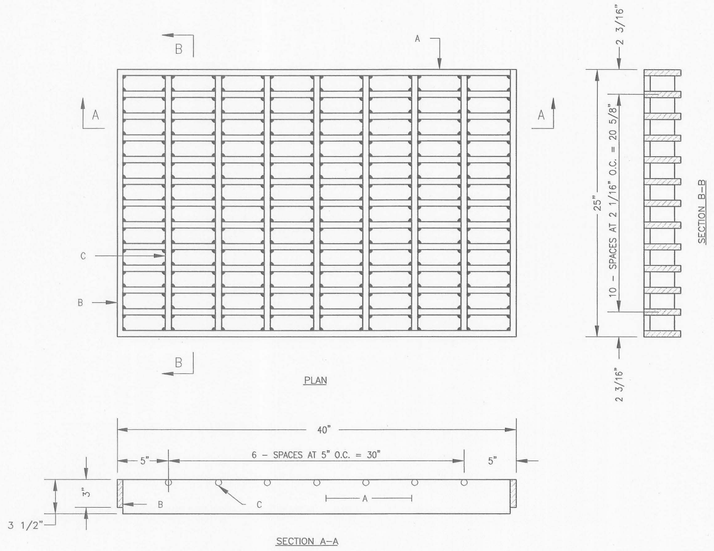
MCA Project No.: RAT 051–12

MISCELLANEOUS DETAILS I

PROJECT ARCHITECT: John Quinn Pate, RA

Drawn by: JAV
Checked by: RPA

C1.04




## INLET GRATE DETAIL

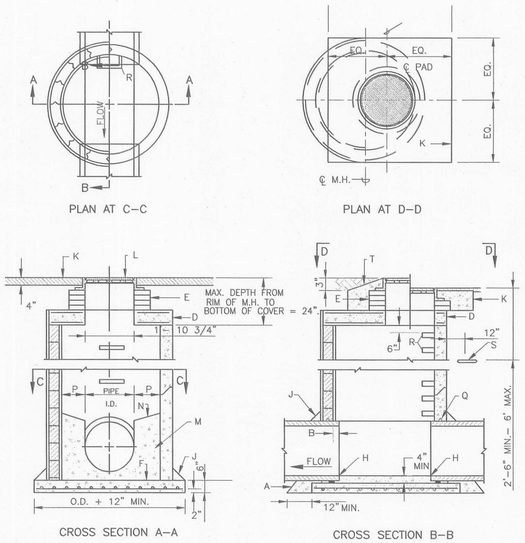
SCALE: NONE

GENERAL NOTES:

1. ALL BARS SHALL BE STRUCTURAL GRADE STEEL, GRADE A36.
2. THE GRATE SHALL BE WELDED WITH 1/8" FILLET WELD AROUND BOTH SIDES OF CROSS BARS, 1/4". FILLET WELD BOTH SIDES OF BEARING BARS TO END BARS.
3. AFTER CLEANING SURFACE OF SCALE, RUST, OILS, ETC., PAINT GRATE WITH ONE SHOP COAT RED OXIDE, TWO FINISH COATS ALUMINUM PAINT (AASHTO M 69).
4. TOP OF CROSS BARS SHALL BE FLUSH WITH TOP OF GRATE.
5. GRIND WELDS FLUSH WITH BEARING BARS.
6. WHEN INSTALLED IN FRAME, PUSH TIGHT TO ONE SIDE, OTHER SIDE SHALL HAVE 1/2" MAX. OPENING. SPACERS WELDED TO FRAME MAY BE USED IF REQUIRED TO KEEP 1/2" SPACE OR LESS.

CONSTRUCTIION NOTES:

A. BEARING BARS, (13) 1/2" X 3 1/2" X 39".
B. END BARS, (2) 1/2" X 3" X 25".
C. CROSS BARS, (7) 1/2" DIA. X 24".




## STORM DRAINAGE MANHOLE TYPE "C"

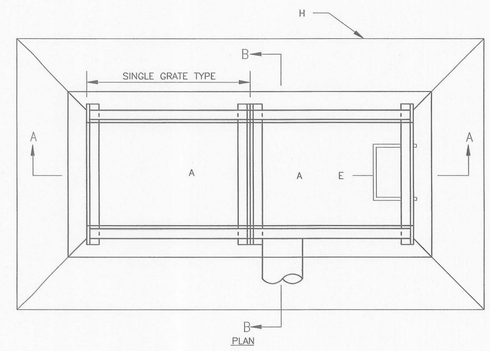
SCALE: NONE

TYPE "C" MANHOLE NOTES

1. USE TYPE C M.H. FOR DEPTHS OF LESS THAN 6' MEASURED FROM INV. TO RIM.
2. CONTRACTOR HAS OPTION TO CONSTRUCT TYPE C M.H. IN LIEU OF TYPE E M.H. FOR DEPTHS OF 6' OR MORE.
3. DESIGN APPLIES TO 4', 6', & 8' I.D. MANHOLES.
4. M.H. GREATER THAN 18' IN DEPTH SHALL ONLY BE CONSTRUCTION PRECAST CONCRETE SECTIONS.
5. USE NON-SHRINK GROUT FOR JOINTS, FILLETS AND PENETRATIONS.
6. COMPACT ALL BACKFILL AROUND MANHOLE TO 95% AS DETERMINED BY ASTM D1557.
7. POSITION M.H. OPENING OVER THE UPSTREAM SIDE OF MAIN LINE.

KEYED NOTES:

A. CONCRETE PIPE SUPPORTS SHALL EXTEND OUTSIDE OF M.H. TO BELL OF FIRST JOINT & SHALL CRADLE PIPE TO SPRING LINE. NOT APPLICABLE FLEXIBLE PIPE.
B. PIPE PENETRATION INTO MANHOLE SHALL BE FLUSH TO 2" MAX., MEASURED AT SPRINGLINE OF PIPE.
D. PRECAST CONCRETE COVER, SEE DETAIL THIS SHEET.
E. USE MAX. 4 COURSES GR. MS BRICK ON UNPAVED STREET FOR FUTURE ADJ. OF M.H. FRAME TO PAVEMENT GRADE. PLASTER INSIDE WITH 1/2" MORTAR.
F. CONCRETE BASE TO BE POURED IN PLACE USING NO. 4 BARS @ 6" O.C. EA. WAY FOR M.H. DEPTH OF 16' OR GREATER. NO. 4 BARS 12" O.C. EA. WAY FOR M.H. LESS THAN 16' IN DEPTH.
H. INV. ELEV. OF STUB OR LATERAL AS SHOWN ON PLANS.
J. 6" GROUT FILLET ON UPPER HALF OF PIPE AND AROUND BASE.
K. 4" SIDEWALK TO BE CONSTRUCTED FLUSH WITH TOP OF MANHOLE FRAME
L. FRAME AND COVER, SEE DETAIL THIS SHEET.
M. CONCRETE FILL, 3000 PSI.
N. SLOPE 1" PER FT. FROM PIPE CROWN.
P. SHELF TO BE 9" WIDE MIN.
Q. APPROVED WATERSTOP TO BE COMPATIBLE WITH TYPE OF PIPE.
R. STEPS TO BE INSTALLED, PER DETAIL.
S. EMD (IN UNPAVED AREAS).
T. IN UNPAVED AREAS SET FRAME TO GRADE AND SLOPE TOP OF PAD.




GENERAL NOTES:

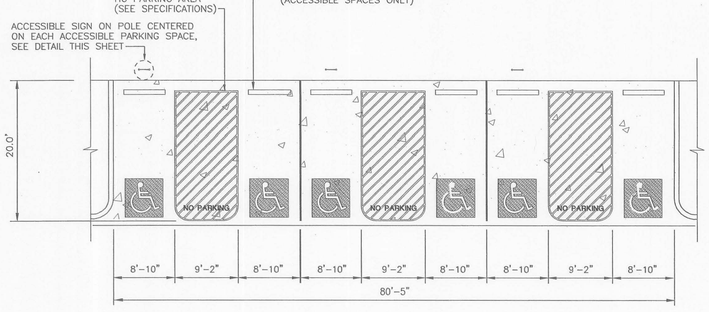
1. FOR SINGLE GRATE TYPE STORM INLET, DELETE CENTER SUPPORT AND MOVE ONE END WALL TO FORM NEW SINGLE GRATE INLET.
2. STORM INLET GUTTER TRANSITION WILL BE SHOWN ON THE CONSTRUCTION PLANS.
3. OUTLET PIPE SIZE, PER DESIGN REQUIREMENT.
4. FOR FRAME & GRATING, SEE DETAIL THIS SHEET.

CONSTRUCTION NOTES:

A. FRAME & GRATE.
B. CENTER SUPPORT ASSEMBLY.
C. CUT ONE HORIZONTAL AND ONE VERTICAL BAR MAX. AT PIPE OPENING.
D. NO. 4 BARS AT 6" O.C. EACH WAY.
E. USE STANDARD STEPS, SEE ABOVE DETAIL.
F. INVERT PER DESIGN.
G. INSTALL STEPS ON UPSTREAM FACE.
H. 2' CONCRETE APRON, 4" THICK TO FULLY BORDER GRATE. ENSURE POSITIVE DRAINAGE

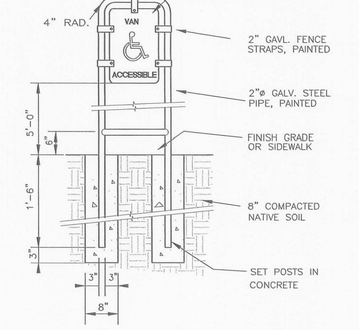
## STORM INLET DOUBLE "D" DETAIL

SCALE: NONE



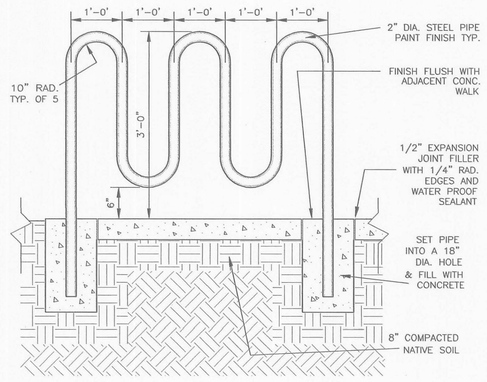

## TYPICAL ACCESSIBLE PARKING

SCALE: NONE



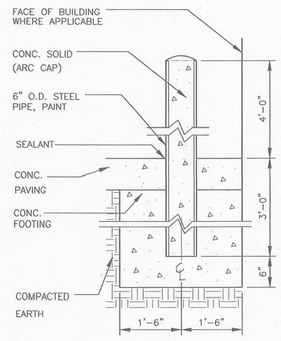

## ACCESSIBLE PARKING SIGN

SCALE: NONE



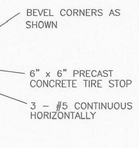

## PIPE BIKE RACK

SCALE: 3/4"=1'




## BOLLARD DETAIL

SCALE: 3/4"=1'







## PARKING BUMPER DETAIL

SCALE: NONE

Molzen-Corbin & Associates
2701 Miles Road S.E.
Albuquerque, New Mexico 87106
voice (505) 242-5700
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SINK COMBS DETHLEFS
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475 Lincoln Street, Suite 100
Denver, Colorado 80203
303 308 0200
FAX 308 0222

NOTICE OF EXTENDED PAYMENT PROVISION: THIS CONTRACT ALLOWS THE OWNER TO MAKE PAYMENT WITHIN 45 DAYS AFTER SUBMISSION OF AN UNDISPUTED REQUEST FOR PAYMENT

| Issues/Revisions: | Date: |
|---|---|
| Bid Document | 6-24-07 |

Raton Aquatics Center
Raton, New Mexico

MCA Project No.: RAT 051-12

MISCELLANEOUS DETAILS II

PROJECT ARCHITECT: John Quinn Pate, RA

Drawn by: JAV
Checked by: RPA

C1.05

# GENERAL STRUCTURAL NOTES

1. CODES AND MANUALS
   International Building Code, 2003 Edition
   ACI 318, current edition.
   AISC Manual of steel construction 9th Edition
   AISI Specification for the design of Cold Form Steel Structural Members, Current Edition
   ACI 530, Current Edition

2. DESIGN LOADS:
   A. Vertical:

| | |
|---|---|
| Roof Live Load (non reducible) | 20psf |
| Roof Dead Load | 24psf |
| Roof Snow Load | 30psf |
| Mechanical Level Live Load | 40psf |
| Mechanical Level Dead Load | 61psf |

   B. Horizontal:
      (1) WIND – ASCE 7 Main Force Resisting system Low Rise Building Method 2

WALLS

| | |
|---|---|
| Zone A | P = 17.7psf |
| Zone B | P = –7.3psf |
| $V_3$ Sec gust | = 90mph |
| Iw | = 1.15 |
| Exposure | = B |
| Mean Roof Height | = 36ft. |
| Roof Angle | = 9.6 |
| $\lambda$ | = 1.06 |

      (2) SEISMIC (EQUIVALENT LATERAL FORCE PROCEDURE) V = Cs W

| | |
|---|---|
| Site Class | = C |
| Occupancy Category | = III |
| Seismic Use Group | = II |
| Seismic Design Category | = B |
| IE | = 1.25 |
| Sos | = 0.228 |
| So1 | = 0.102 |
| R | = 5 AND 3.5 |
| Cs | = 0.08 |

   C. SOIL:
      (1) Allowable Bearing Pressure qa = 3000 psf
      *allowable 1/3 stress increase for combined gravity & seismic/wind loading

3. GENERAL
   A. The Contractor shall verify all dimensions in the field.
   B. Shop drawings shall be furnished for review before any fabrication and erection is started. Poorly executed shop drawings shall be rejected and resubmitted.
   C. The Contractor shall be responsible for providing safe and adequate shoring for all parts of the structure during construction.
   D. All trades shall coordinate and verify all openings in floors, roof, walls, and beams with the General Contractor.
   E. The General Contractor shall be responsible for foundations under Mechanical equipment and shall coordinate size and location of foundations with Mechanical Contractor.

4. MATERIALS
   A. Cast–in–place Concrete:
      (1) Hardrock Concrete (Unit Wt. = 150 pcf)
         a. f'c = 3000 psi @ 28 days – All cast–in– place concrete spot footings, stem walls, continuous footings, and slabs on ground.
         b. f'c = 4000 psi @ 28 days (w/c ratio shall be less than 0.45)– All slab on ground in pool area
         c. f'c = 4000 psi @ 28 days (Air Entrained) – All cast–in–place site concrete and Retaining Walls

   B. Reinforcing Steel:
      (1) All reinforcing steel shall conform to ASTM A615 Grade 60.
      (2) Welded smooth wire fabric shall conform to ASTM A185 specification for welded wire fabric for concrete reinforcement.
      (3) Reinforcing steel shall be fabricated and placed in accordance with the latest building code requirements for reinforced concrete (ACI 318) and the latest standard Manual (ACI 315)
      (4) Bar supports and spacers for rebar shall be provided in accordance with ACI 315. Chairs with 22 GA. sand plates shall be provided for all reinforcing in slabs on grade.
      (5) Where lapped splices in reinforcing occur, the minimum lap shall be made as follows unless noted otherwise:
         a. Vertical reinforcing: 48 bar dia. or 24" minimum.
         b. Horizontal reinforcing: 48 bar dia. or 24" minimum.
         c. Horizontal corner bars: 48 bar dia. or 24" minimum.
      (6) Concrete cover for reinforcing shall be as follows:
         a. Footings: 3" from bottom and 2" from sides.
         b. Stem Walls: 2" from sides and 2" from top and bottom.
         c. Slabs on ground: centered in slab.
      (7) The contractor shall be responsible to see that all rebar is properly aligned and tied in place before placing concrete. All column, wall dowels and vertical steel shall be accurately located and secured in place so that it remain in position during the concrete placing operation. Any rebar found to be improperly installed shall be removed and replaced at no additional cost to the owner.
      (8) All horizontal reinforcing in footings, walls and beams shall be continuous around corners or have corner bars of the same size and spacing as the horizontal bars and lap a minimum of 30 bar diameters or 24" minimum.
      (9) Form Ties shall be either of the threaded or snap off type so that no metal will be left within 1" of the surface of the wall. Following removal of form ties, recesses are to be carefully filled and pointed with mortar.

   C. Structural and Miscellaneous Steel:
      (1) All structural and miscellaneous steel members, shapes and connections shall conform to ASTM A992 Fy=50ksi
      (2) The contractor shall be responsible for checking the Architectural drawings for all miscellaneous steel.
      (3) Bolts Shall Conform to ASTM A325 tension control bolts unless noted otherwise, with sizes as shown on the drawings. Anchor bolts embedded in concrete or masonry shall be ASTM F1554 grade 36 bolts or A36 threaded bars.
      (4) All welding shall be done by certified welders and shall be in accordance with the latest standards of the AWS and AISC. Inspect all welding in Accordance with the specifications.
      (5) Tube steel shall be ASTM 500 grade B Fy=46ksi.

   D. Cold formed structural and miscellaneous steel
      (1) All cold formed shapes and connections shall have a yield stress of Fy=50 ksi. for 16gage & heavier & 33ksi for 18gage & lighter.
      (2) All welding shall conform to the provisions of AWS D1.1–2000 and ANSI/AWS D1.3–98. Where the weld throat is not shown on the drawings, the weld throat shall be at least as the thickness of the thinnest sheet joined. All welds shall provide complete fusion of the sheets without "blowouts".
      (3) At all butt joints, abutting pieces of track shall be securely anchored to a common structural element or they shall be splice welded together.
      (4) All structural stud framing shall have rows of horizontal bridging installed at a maximum of 4'–0" o.c. See detail this sheet.
      (5) The track of all structural stud framing shall be 16 gage minimum.

   E. MASONRY
      (1) All masonry shall be 2 cell block and have a specifided minimum compressive strength of 1900psi on net area at 28 days. fm'=1500PSI
      (2) Type "S" Mortar shall be used
      (3) All CMU bond beams, lintels and cells which contain reinf. steel shall be filled solid with 2000 psi concrete grout
      (4) Vertical cells to be filled shall have vertical alignment sufficient to maintain a clear unobstructed continuous vertical cell not less than 2"x3" in plan dimensions
      (5) Foundation dowels shall extend into the foundation concrete as shown on the sections and details. Splices of reinforcing steel in masonry shall be 2'–0" or 48 bar diameters in length, which ever is greater. There shall be a foundation dowel for for each vertical wall reinforcing bar.
      (6) Normal vertical wall reinforcing shall extend continuously from the top of foundation to embed at least 8" into the top of wall bond beam. The vertical slots in knockout bond beams shall be at least 3" into the height of an 8" block unit.
      (7) An additional vertical bar the same size and length as the normal vertical reinf. bar shall be placed:
         A. As shown on drawings.
         B. At a corner intersection of two walls, see detail this sheet
         C. At a "T" intersection of two walls, see detail this sheet.
         D. At end of discontinuous walls and at openings, see detail this sheet.
      (8) Control joints shall be installed per masonry control joint detail this sheet. For contol joint locations see foundation plan. Continue all bond beam and lintel reinforcement through control joint.
      (9) Corner blocks shall be interwoven between two walls
      (10) Unless noted otherwise, provide (2) additional #5 reinforcing bars along sides and top & bottom of all masonry wall openings. Extend reinforcing 24" beyond opening.
      (11) All masonry shall be special inspected in accordance with the requirements contained in the IBC 2003.

5. SITE GRADING AND EARTHWORK:
   A. Inspection: The contractor shall retain the services of a registered professional geotechnical engineer who will inspect the placement of the engineered fill. The contractor shall notify the geotechnical engineer at least two (2) working days in advance of any field operation requiring engineered fill.

   B. Foundation Preparation:
      Building areas shall be completely stripped of vegetation, pavements, walls, and soft or muddy areas.
      (1) All foundations & slabs shall be supported on a minimum depth of four feet of structural fill, see detail this sheet. Prior to fill placement the exposed surfaces shall be scarified to a depth of twelve inches and moistened to a minimum of 2% below optimum moisture content. The exposed soils shall then be compacted to a minimum of 95% of maximum density as determined by ASTM D–1557 prior to placing new compacted fill.
      (2) All scarification and removals specified herein shall extend a distance of at least five feet beyond all footing edges.
      (3) Soil utilized for filling shall consist of approved on–site or imported soil in accordance with the requirements contained in the geotechnical investegation.
      (4) Any imported soils shall be approved by the geotechnical engineer for both expansive and strength qualities prior to importation to the project site. Final acceptance of any imported soil will be based on observation of the soil actually delivered to the site.
      (5) All fill shall be compacted to at least 95 percent of maximum dry density.
      (6) The maximum density of all soils shall be determined in accordance with A.S.T.M. Test Method D–1557.
      (7) All fill shall be placed with a moisture content of near optimum (+/–3%).

   C. Fill material shall be non–expansive soil with a plasticity index of ten or less. All fill material shall be approved by the soils engineer.

   D. Site Drainage:
      (1) Positive surface drainage away from both existing structures and new foundation excavations shall be provided during construction. A minimum of four percent gradient within the first ten feet away from structures in areas not protected by sidewalks and pavement shall be maintained
      (2) Provide pool under drain system coordinate with pool drawings

## QUALITY ASSURANCE PLAN

General Requirements:

1. The owner shall be responsible for hiring the special inspector(s) and must incur all associated costs per section 1704.1 of the IBC–2003.
2. The permit applicant shall submit a statement of special inspections prepared by the registered design professional in responsible charge per section 1704.1.1 of the IBC–2003. The statement of special inspections shall be as shown below
3. Special inspectors shall submit inspection reports to the building official, and to the registered design professional in responsible charge. The reports shall be prepared in accordance with the requirements contained in section 1704.1.2 of the IBC–2003.
4. The required Special Inspections for this project have been summarized below. All other normal inspections and testing not included in the Special Inspections shown below (i.e. soils compaction testing, concrete sampling and testing, permit agency inspections, etc.) shall be paid for by the General Contractor. All normal testing and inspections, as well as all Quality Assurance testing and inspections (Special Inspections), shall be coordinated and scheduled by the General Contractor to fit within the workflow of the project

Inspection of Fabrication

5. All structural load bearing members and assemblies fabricated in the fabricators' shop shall be required to have special inspections. These special inspections shall consist of verification by special inspector that fabricator maintains detailed fabrication and quality control procedures that provide a basis for inspection control of the workmanship and the fabricators' ability to conform to approved construction documents and referenced standards. These inspections are not required if the fabricator is registered and approved to perform such work without special inspection. The fabricator shall submit a certificate of compliance to the building official stating that the work was performed in accordance with the approved construction documents.

Special Inspections

6. STEEL CONSTRUCTION: The Special Inspections for the steel elements of this Facility shall be as follows and as contained in Table A below:
   a. Periodic Inspection for material verification of high–strength bolts, nuts & washers. This includes identification markings to conform to ASTM standards specified in the approved construction documents. Also includes manufacturer's certificate of compliance
   b. Periodic inspection is required for high–strength bolting operations using bearing–type and slip–critical connections
   c. Periodic, visual inspection is required for field welding of all single–pass fillet welding less than 5/16" used for structural steel connections
   d. Periodic, visual inspection is required for field welding of the floor & roof decking
   e. Reinforcing steel is not to be welded and therefore no special inspections are required for this item. Field inspections are not required for light–gauge steel studs & joists. Field inspections are not required for railings & miscellaneous ornamental steel

TABLE 'A' – STEEL CONSTRUCTION (Reference Table 1704.3 – IBC 2003)

| Verification & Inspection Item | Continuous | Periodic |
|---|---|---|
| 1.a, 1.b | | X |
| 2.a | | X |
| 2.b | X | X |
| 5.a.1) | X | |
| 5.a.4, 5.a.5, 6 | | X |

7. CONCRETE CONSTRUCTION: The Special Inspections for the concrete elements of this Facility are not required for this project since spot and continuous footings are for a building less than three stories in height. Normal inspections and testing shall be done and paid for by the General Contractor

8. SOILS: The Special Inspections for the soils of this Facility shall be in accordance with the requirements of Section 1704.7 of the IBC 2003 and as follows:
   a. Prior to placement of the prepared fill, the special inspector shall determine that the site has been prepared in accordance with the approved soils report.
   b. During placement and compaction of the fill material, the special inspector shall determine that the material being used and the maximum lift thickness comply with the approved soils report. The special inspector shall determine that the in–place dry density of the compacted fill complies with the approved soils report.

9. MASONRY CONSTRUCTION: The Special Inspections for the Masonry elements of this Facility shall be in accordance with level 1 requirements of the IBC 2003 and as follows and as contained in Table B below:
   a. Periodic inspection, during the time the task is being performed, is required for proportions of site prepared mortar, construction of mortar joints, and location of reinforcing and connectors
   b. The Periodic inspection shall verify: 1) size and location of structural elements, 2) type, size, and location of anchors including other details of anchorage of masonry to other structural members, 3) specified size, grade, and type of reinforcement, and 4) protection of masonry during cold or hot weather
   c. Periodic inspection is required prior to grouting to verify: 1) that the grout space is clean, 2) placement of reinforcing and connectors, 3) proportions of site–prepared grout, and 4) construction of mortar joints
   d. Continuous inspection is required of the grout placement to ensure compliance with the IBC 2003 and the construction documents
   e. Continuous inspection is required of the preparation of any required grout specimens, mortar specimens, and prisms
   f. Periodic inspection is required for compliance with the required inspection provisions

TABLE 'B' – MASONRY CONSTRUCTION (Reference Table 1704.5.1 – IBC 2003)

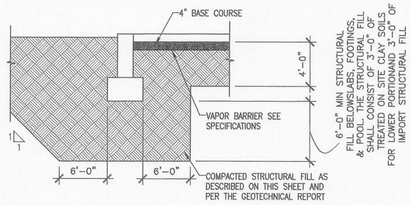
| Verification & Inspection Item | Continuous | Periodic |
|---|---|---|
| 1.a, 1.b, 1.c | | X |
| 2.a, 2.b, 2.c, 2.e | | X |
| 3.a, 3.b, 3.c, 3.d | | X |
| 4, 5 | X | |
| 6 | | X |

Seismic Resistance

10. SEISMIC RESISTANCE REQUIREMENTS
   a) Quality plan for the seismic resistance of this project will include the following items:
      1) Seismic–Force–Resisting system for this building: This system consists of Load Bearing Masonry Shear Walls
   b) The special inspections and testing to be provided for the items shown above shall be in accordance with the sections 1704, 1707 and 1708 of the IBC–2003.
   c) The type and frequency of testing and special inspections for the steel concentric braced frames shall be as shown above.
   d) The testing and special inspection reports shall be distributed weekly during the construction period for each element. The reports shall be submitted to the following:
      1) building official and
      2) registered design professional
   e) Contractor responsibility: each contractor responsible for the construction of any of the the systems listed above shall submit a written contractors statement of responsibility to the building official, and the registered design professional prior to the commencement of work. The contractors' statement of responsibility shall contain the following:
      1) Acknowledgement of awareness of the special requirements contained in the quality assurance plan.
      2) Acknowledgement that control will be exercised to obtain conformance with the construction documents.
      3) Procedures for exercising control within the contractors' organization, the method and frequency of reporting and the distribution of reports.
      4) Identification and qualifications of the person(s) exercising such control and their position(s) in the organization.

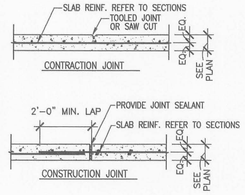
Structural Observations

10. Structural observations shall be performed in accordance with sections 1709 of the IBC–2003.



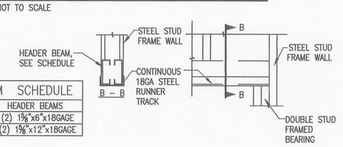

## STRUCTURAL FILL REQUIREMENTS DETAIL

NOT TO SCALE

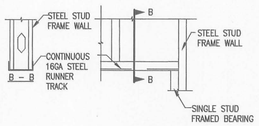



## CONCRETE SLAB JOINT DETAILS

NOT TO SCALE

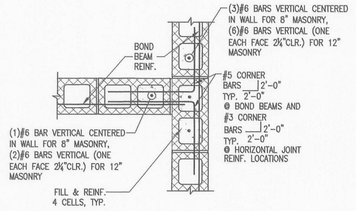



| HEADER BEAM SCHEDULE | |
|---|---|
| CLEAR SPAN | HEADER BEAMS |
| UP TO 8'–0" | (2) 1⅝"x6"x18GAGE |
| UP TO 18'–0" | (2) 1⅝"x12"x18GAGE |



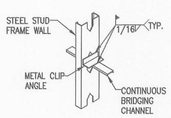

## EXTERIOR NON-LOAD BEARING HEADER DETAIL

NOT TO SCALE



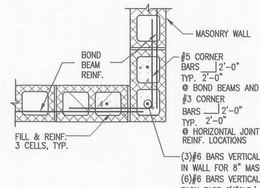

## INTERIOR NON-LOAD BEARING HEADER DETAIL @ OPENINGS UP TO 6'-0" WIDE

NOT TO SCALE



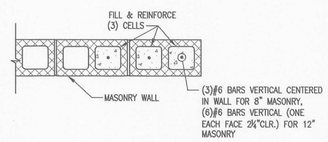

## MASONRY WALL DETAIL AT INTERSECTIONS

NOT TO SCALE



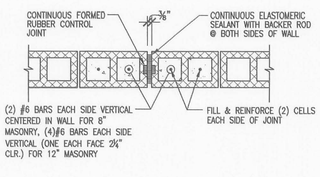

## HORIZ. BRIDGING DETAIL

NOT TO SCALE



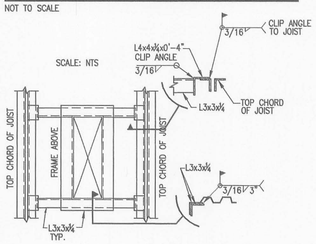

## MASONRY WALL DETAIL AT CORNERS

SCALE: NTS




## MASONRY WALL DETAIL AT ENDS OF WALLS & AT OPENINGS

NOT TO SCALE

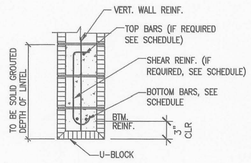



## MASONRY WALL CONTROL JOINT DETAIL

## ROOF PENETRATION DETAIL AT OPENINGS LARGER THAN 1'-6" SQ. OR 1'-6" DIAMETER

NOT TO SCALE

NOTE: SEE MECHANICAL DRAWINGS FOR OPENING SIZES AND LOCATIONS




## MASONRY LINTEL DETAIL

NOTE: SEE ARCHITECTURAL AND MECHANICAL DRAWINGS FOR OPENING SIZES

## LINTEL SCHEDULE

| LOCATION | DEPTH OF LINTEL | LINTEL BEARING LENGTH | LINTEL WIDTH | BOTTOM BARS | TOP BARS | SHEAR STIRRUPS | COMMENTS |
|---|---|---|---|---|---|---|---|
| L1 | 32" | 24" | 8" | (2)#4 | N/A | N/A | SEE FRAMING PLANS FOR LOCATION |
| L2 | 56" | 24" | 8" | (2)#4 | N/A | N/A | SEE FRAMING PLANS FOR LOCATION |
| L3 | 32" | 24" | 12" | (2)#4 | N/A | N/A | SEE FRAMING PLANS FOR LOCATION |
| L4 | 56" | 24" | 12" | (2)#4 | N/A | N/A | SEE FRAMING PLANS FOR LOCATION |
| L5 | 64" | 24" | 8" | (2)#4 | N/A | N/A | SEE FRAMING PLANS FOR LOCATION |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QUIROGA–PFEIFFER ENGINEERING CORPORATION



NOTICE OF EXTENDED PAYMENT PROVISION: THIS CONTRACT ALLOWS THE OWNER TO MAKE PAYMENT WITHIN 45 DAYS AFTER SUBMISSION OF AN UNDISPUTED REQUEST FOR PAYMENT


RICHARD S. PFEIFFER NEW MEXICO 11955 REGISTERED PROFESSIONAL ENGINEER
6/24/07

| Issues/Revisions: | Date: |
|---|---|
| Bid Document | 6-24-07 |

Raton Aquatics Center
Raton, New Mexico

MCA Project No.: RAT 05I-12

GENERAL STRUCTURAL NOTES

PROJECT ARCHITECT: John Quinn Pate, RA
Designrd By: T. Dempsey
Drawn by: R. RODRIGUEZ
Checked by: R. PFEIFFER

S0.01

## ROOF FRAMING PLAN

SCALE: 1/8"=1'-0"

F.F. ELEV. = 100'-0" = 6674.0

## GENERAL NOTES

1. T.O. FTG. EL=98'-0" @ EXTERIOR FOOTINGS UNLESS NOTED OTHERWISE
2. T.O. FTG. EL=99'-4" @ EXTERIOR FOOTINGS UNLESS NOTED OTHERWISE
3. FOR CONTRACTION JOINT LOCATIONS SEE ARCHITECTURAL AND POOL SHEETS

## KEYED NOTES

1. 5" 4000psi CONCRETE SLAB ON 4" OF SAND ON VAPOR BARRIER W/#3 @ 18" O.C. EW
2. POOL WALLS & SLAB SEE POOL DRAWINGS FOR REQUIREMTNS
3. 4" 4000psi CONCRETE SLAB ON 4" OF SAND ON VAPOR BARRIER W/6x6 W1.4xW1.4 WWF
4. HSS 3½x3½x5/16 Fy=46ksi STEEL COLUMN W/⅝" TYPE A BASEPLATE W/(4)¾"DIA. F1554 TYPE 1 ANCHOR BOLTS EMBEDDED 12" INTO CONCRETE
5. HSS 4½x4½x5/16 Fy=46ksi STEEL COLUMN W/⅝" TYPE B BASEPLATE W/(4)¾"DIA. F1554 TYPE 1 ANCHOR BOLTS EMBEDDED 12" INTO CONCRETE
6. CONCRETE RETAINING WALL SEE SHEET S1.02
7. POOL & POOL UNDERDRAIN SYSTEM SEE POOL DRAWINGS FOR REQUIREMENTS
8. DECK DRAIN COORDINATE WITH POOL DRAWINGS
9. HSS 5⅝x5⅝x5/16 Fy=46ksi STEEL COLUMN W/¾" TYPE C BASEPLATE W/(4)¾"DIA. F1554 TYPE 1 ANCHOR BOLTS EMBEDDED 12" INTO CONCRETE
10. HSS 8x6x5/16 Fy=46ksi STEEL COLUMN W/2" TYPE D BASEPLATE W/(4)¾"DIA. F1554 TYPE 1 ANCHOR BOLTS EMBEDDED 12" INTO CONCRETE
11. HSS 4½"x4½"x5/16 Fy=46ksi STEEL COLUMN
12. HSS 5⅝"x5⅝"x5/16 Fy=46ksi STEEL COLUMN
13. STEPPED FOOTING SEE TYPICAL DETAIL ON SHEET S1.02
14. SEE TYPE 6 WALL TYPE ON SHEET S1.02 FOR REQUIREMENTS
15. RECESS SLAB FOR PEDIMAT COORDINATE W/MANUFACTURER

## LEGEND

| | |
|---|---|
| CNTR | CONTRACTION JOINT COORDINATE LOCATIONS W/ARCHITECTURAL & POOL DRAWINGS |
| F.O.M. | FACE OF MASONRY |
| F.O.C. | FACE OF CONCRETE |
| | 12" MASONRY WALL W/(2)#4 VERTICAL BARS (ONE EACH FACE 2⅞" CLR.) @ 8" O.C. AND 9GAGE TRUSS REINFORCEMENT @ 16" O.C. GROUT ALL REINFORCED CELLS. SEE SHEET SO.01 FOR TYPICAL MASONRY DETAILS |
| | 8" MASONRY WALL W/#8 VERTICAL BARS @ 24" O.C. CENTERED IN WALL AND 9GAGE TRUSS REINFORCEMENT @ 16" O.C. GROUT ALL REINFORCED CELLS. SEE SHEET SO.01 FOR TYPICAL MASONRY DETAILS |
| | 8" MASONRY WALL W/#4 VERTICAL BARS @ 24" O.C. CENTERED IN WALL AND 9GAGE TRUSS REINFORCEMENT @ 16" O.C. GROUT ALL REINFORCED CELLS. SEE SHEET SO.01 FOR TYPICAL MASONRY DETAILS |
| | 12" MASONRY WALL W/(2)#5 VERTICAL BARS (ONE EACH FACE 2⅞" CLR.) @ 32" O.C. AND 9GAGE TRUSS REINFORCEMENT @ 16" O.C. GROUT ALL REINFORCED CELLS. SEE SHEET SO.01 FOR TYPICAL MASONRY DETAILS |
| | CONCRETE WALLS SEE SECTIONS FOR REQUIREMENTS |
| | 1⅝"x6"x18GAGE STUDS @ 16" O.C. |
| △ | FTG. TYPE SEE SHEET S3.01 |
| MCJ | MASONRY CONTROL JOINT, SEE DETAIL ON SHEET SO.01. |


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6/24/07

| Issues/Revisions: | Date: |
|---|---|
| Bid Document | 6-24-07 |

# Raton Aquatics Center

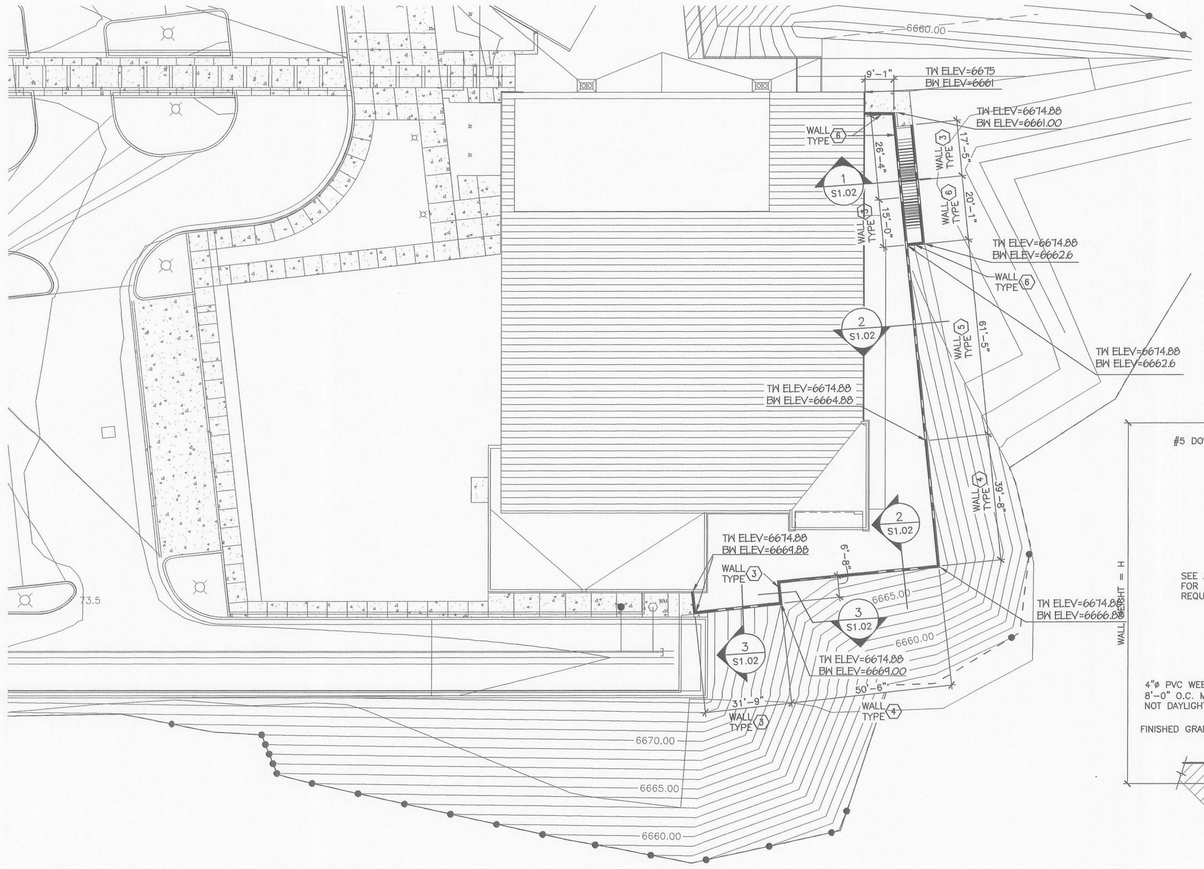
Raton, New Mexico

MCA Project No.: RAT 051-12

## FOUNDATION PLAN

PROJECT ARCHITECT: John Quinn Pate, RA
Designrd By: T. Dempsey
Drawn by: R. RODRIGUEZ
Checked by: R. PFEIFFER

S1.01




## RETAINING WALL LOCATION PLAN

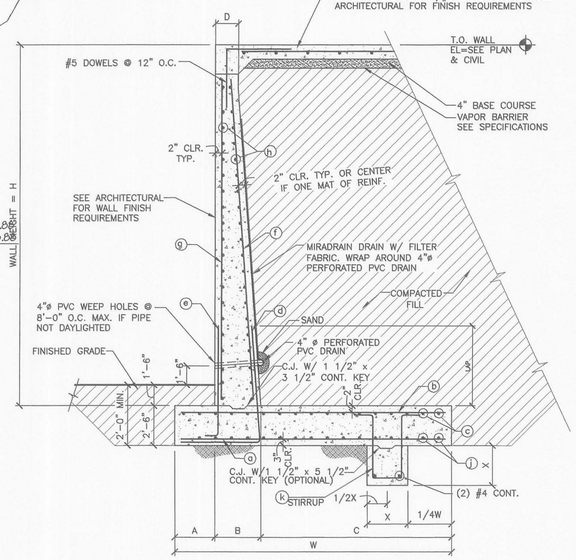
SCALE: 1"=20'

## CONCRETE RETAINING WALL SCHEDULE

| WALL TYPE | DIMENSIONS | | | | | | | STEEL REINFORCEMENT | | | | | | | | LAP | KEY | | NOTE |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | H | T | A | B | C | D | W | ⓐ | ⓑ | ⓒ | ⓓ | ⓔ | ⓕ | ⓖ | ⓗ | ⓙ | | X | ⓚ | |
| ⟨1⟩ | 3'-0" | 1'-0" | 6" | 8" | 1'-7" | 8" | 2'-9" | #4@12 | #4@12 | #4@12 | #4@12 | N/A | N/A | N/A | #4@12 | #4@12 | N/A | N/A | N/A | |
| ⟨2⟩ | 5'-0" | 1'-0" | 1'-0" | 8" | 2'-4" | 8" | 4'-0" | #4@12 | #4@12 | #4@12 | #5@12 | N/A | #4@12 | N/A | #4@12 | #4@12 | N/A | N/A | N/A | |
| ⟨3⟩ | 7'-0" | 1'-3" | 1'-6" | 10" | 3'-10" | 8" | 6'-2" | #5@12 | #4@12 | #4@12 | #5@12 | #4@12 | #4@12 | #4@12 | #4@12 | #4@12 | 2'-0" | N/A | N/A | |
| ⟨4⟩ | 10'-0" | 1'-3" | 2'-0" | 1'-0" | 6'-8" | 10" | 9'-8" | #6@12 | #5@12 | #4@12 | #7@12 | #4@12 | #5@12 | #4@12 | #4@12 | #4@12 | 3'-0" | N/A | N/A | |
| ⟨5⟩ | 12'-0" | 1'-3" | 2'-0" | 1'-0" | 8'-8" | 10" | 11'-8" | #6@12 | #7@12 | #4@12 | #8@12 | #6@12 | #7@12 | #4@12 | #4@12 | #4@12 | 3'-0" | N/A | N/A | |
| ⟨6⟩ | 14'-0" | 1'-6" | 2'-0" | 1'-0" | 10'-3"" | 10" | 13'-3" | #6@12 | #7@12 | #4@12 | #8@6 | #6@12 | #6@6 | #4@12 | #4@12 | #4@12 | 3'-0" | 2'-0" | #6@12 | |

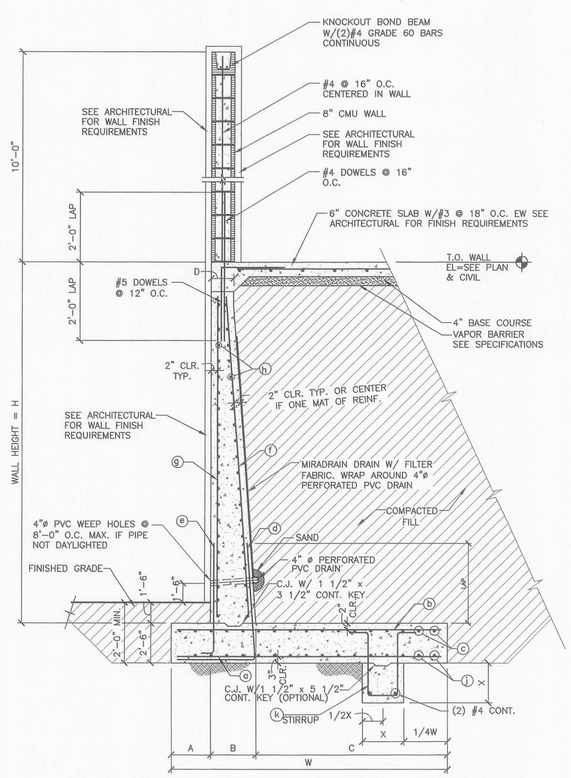
## CONCRETE WALL NOTES

1. EXPANSION JOINTS (E.J.) SHALL BE PLACED AT A MAXIMUM OF 90 FEET ON CENTER.
2. PROVIDE CONSTRUCTION JOINTS AT 28 FEET. JOINTS SHALL HAVE ¾" CHAMFER
3. MATERIAL STRENGTHS:
   CONCRETE: f'c = 4,000 psi @ 28 DAYS
   STEEL: fy = 60,000 psi
4. RETAINING WALLS MAY BE FOUNDED BEARING ON DENSE ROCK LAYER OR COMPACTED STRUCTURAL FILL SOILS AS DIRECTED BY THE GEOTECHNICAL ENGINEER.
5. MAXIMUM ALLOWABLE SOIL BEARING PRESSURE =3000 psf.
6. STEP FOOTING TO MAINTAIN A MINIMUM OF 1'-6" TO TOP OF FOOTING FROM B.W. ELEV.



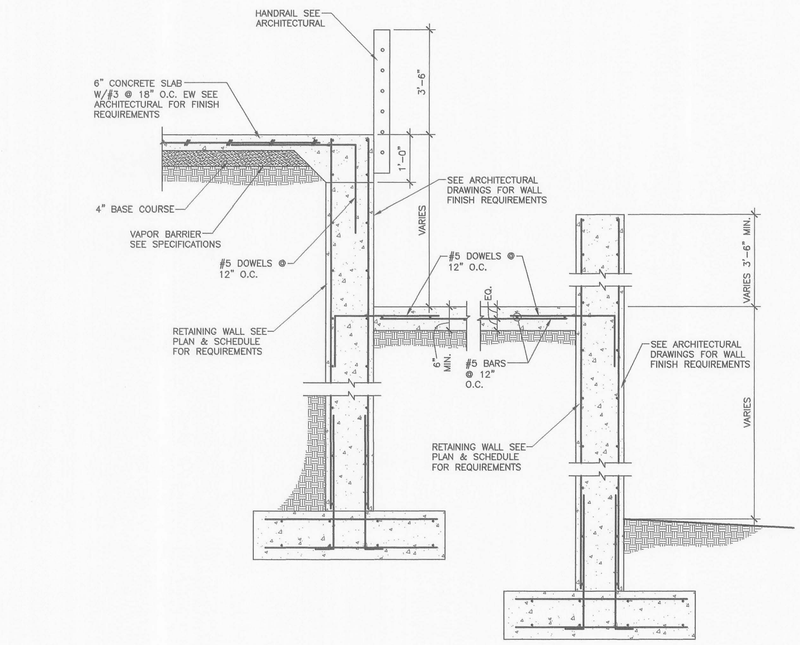

## 2 S1.02 TYPICAL CANTILEVER WALL SYSTEM

SCALE: NTS



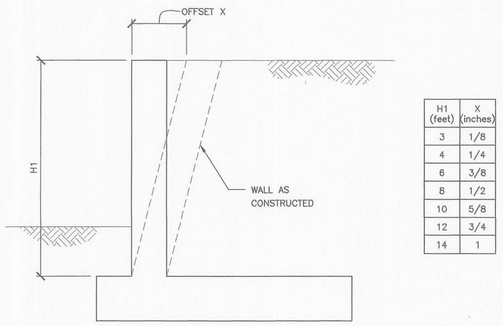

## 3 S1.02 TYPICAL CANTILEVER WALL SYSTEM W/MASONRY SITE WALL

SCALE: NTS



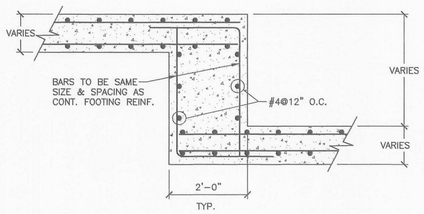

## 1 S1.02 SECTION

SCALE: 3/4"=1'-0"



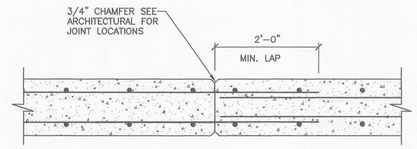

| H1 (feet) | X (inches) |
|---|---|
| 3 | 1/8 |
| 4 | 1/4 |
| 6 | 3/8 |
| 8 | 1/2 |
| 10 | 5/8 |
| 12 | 3/4 |
| 14 | 1 |

## APPROXIMATE WALL OFFSET VALUES



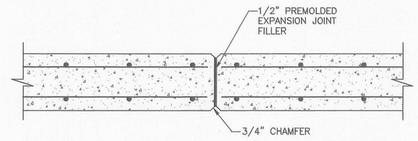

## TYPICAL STEP FOOTING

N.T.S.




## TYPICAL CONSTRUCTION JOINT

N.T.S.




## TYPICAL EXPANSION JOINT

N.T.S.

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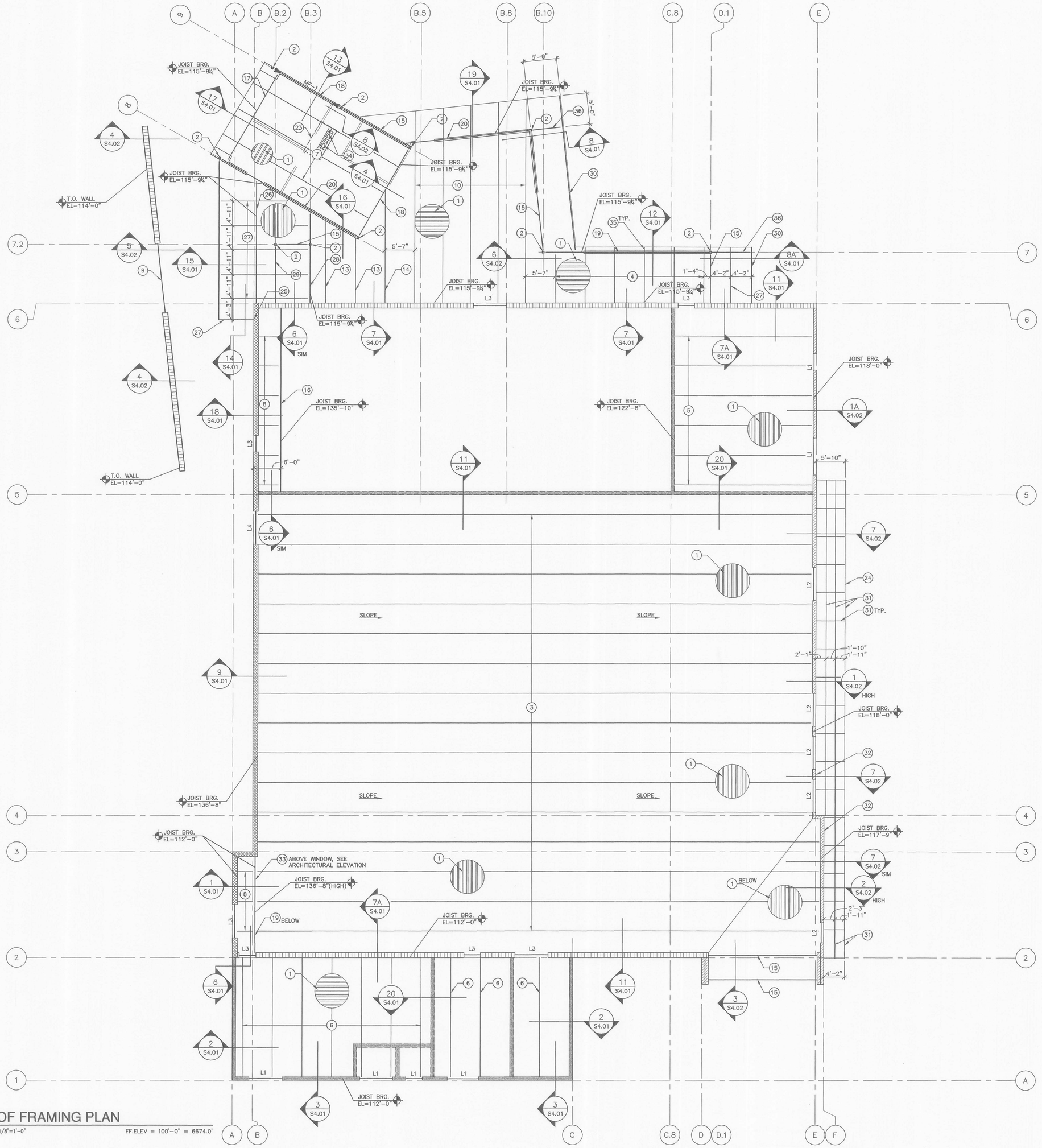
Raton Aquatics Center
Raton, New Mexico

MCA Project No.: RAT 051-12

RETAING WALL LOCATION PLAN DETAILS & SCHEDULE

PROJECT ARCHITECT: John Quinn Pate, RA
Designrd By: T. Dempsey
Drawn by: R. RODRIGUEZ
Checked by: R. PFEIFFER

S1.02




## ROOF FRAMING PLAN

SCALE: 1/8"=1'-0" FF.ELEV = 100'-0" = 6674.0'

## GENERAL NOTES

1. PROVIDE JOIST BRIDGING PER JOIST MANUFACTURER REQUIREMENTS

## KEYED NOTES

1. 1½" TYPE B 22GAGE GALVANIZED METAL DECK WITH MINIMUM SECTION PROPERTIES I=0.169in⁴, Sp=0.186in³,Sn=0.693in³, ATTACH WITH 36/4 PATTERN OF ¾" DIAMETER PUDDLE WELDS @ SUPPORTS & BOUNDRIES AND (11)#10 TEK SCREWS PER SPAN. MAINTAIN 2 SPAN MINIMUM
2. STEEL COLUMN, SEE FOUNDATION PLAN FOR REQUIREMENTS
3. 64DLH14 STEEL JOISTS @ 6'-0" O.C.
4. 8K1 STEEL JOISTS @ 6'-0" O.C.
5. 22K4 STEEL JOISTS @ 6'-0" O.C.
6. 16K4 STEEL JOISTS @ 6'-0" O.C.
7. 26K8 STEEL JOISTS @ 6'-0" O.C. w/R8 EXTENSIONS
8. 2.5K1 STEEL JOISTS @ 6'-0" O.C.
9. CONCRETE BEAM SEE 5/S4.02
10. 24K12 STEEL JOISTS @ 5'-7" O.C. w/R12 EXTENSIONS
11. L5x3x5/16LLH CONTINUOUS
12. 16K5 STEEL JOISTS @ 6'-0" O.C. w/R5 EXTENSIONS
13. 12K1 STEEL JOISTS @ 6'-0" O.C.
14. 18K4 STEEL JOISTS @ 6'-0" O.C.
15. W12x14 Fy=50ksi STEEL BEAM
16. W12x19 Fy=50ksi STEEL BEAM
17. W12x22 Fy=50ksi STEEL BEAM
18. W16x26 Fy=50ksi STEEL BEAM
19. W16x31 Fy=50ksi STEEL BEAM
20. W18x40 Fy=50ksi STEEL BEAM
21. C9x13.4 Fy=50ksi STEEL BEAM
22. NOT USED
23. MECHANICAL UNIT SEE MECHANICAL DRAWINGS
24. CANOPY, SEE SECTION 7 ON SHEET S4.02 FOR REQUIREMENTS
25. ATTACH ANGLE TO WALL W/6X6x5/16 EMBED PLATE W/(1)¾"DIA. x 6" ANCHOR BOLT
26. HSS 10x8x5/16 Fy=46ksi STEEL BEAM
27. HSS 5x5x½ Fy=46ksi STEEL JOISTS
28. HSS 8X4x5/16 Fy=46ksi STEEL BEAM
29. HSS 6X4x¼ Fy=46ksi STEEL HEADER BEAM
30. C12x20.7 Fy=36ksi STEEL BEAM
31. HSS 6x2x⅛ Fy=46ksi STEEL BEAM
32. HSS 6x6x⅛ Fy=46ksi STEEL BEAM
33. W16x50 Fy=50ksi STEEL BEAM
34. MECHANICAL PENETRATION SEE MECHANICAL DRAWINGS. PROVIDE OPENING FRAMING AS REQUIRED PER DETAIL ON S0.01
35. PROVIDE JOIST EXTENSION
36. HSS 5x3x5/16 Fy=46ksi STEEL BEAM

## LEGEND

L# MASONRY LINTEL SEE SCHEDULE ON SHEET S0.01

12" MASONRY WALL W/(2)#4 VERTICAL BARS (ONE EACH FACE 2¼" CLR.) @ 8" O.C. AND 9GAGE TRUSS REINFORCEMENT @ 16" O.C. GROUT ALL REINFORCED CELLS. SEE SHEET S0.01 FOR TYPICAL MASONRY DETAILS

8" MASONRY WALL W/#8 VERTICAL BARS @ 24" O.C. CENTERED IN WALL AND 9GAGE TRUSS REINFORCEMENT @ 16" O.C. GROUT ALL REINFORCED CELLS. SEE SHEET S0.01 FOR TYPICAL MASONRY DETAILS

8" MASONRY WALL W/#4 VERTICAL BARS @ 24" O.C. CENTERED IN WALL AND 9GAGE TRUSS REINFORCEMENT @ 16" O.C. GROUT ALL REINFORCED CELLS. SEE SHEET S0.01 FOR TYPICAL MASONRY DETAILS

12" MASONRY WALL W/(2)#5 VERTICAL BARS (ONE EACH FACE 2¼" CLR.) @ 32" O.C. AND 9GAGE TRUSS REINFORCEMENT @ 16" O.C. GROUT ALL REINFORCED CELLS. SEE SHEET S0.01 FOR TYPICAL MASONRY DETAILS

1⅝"x6"x18GAGE STUDS @ 16" O.C.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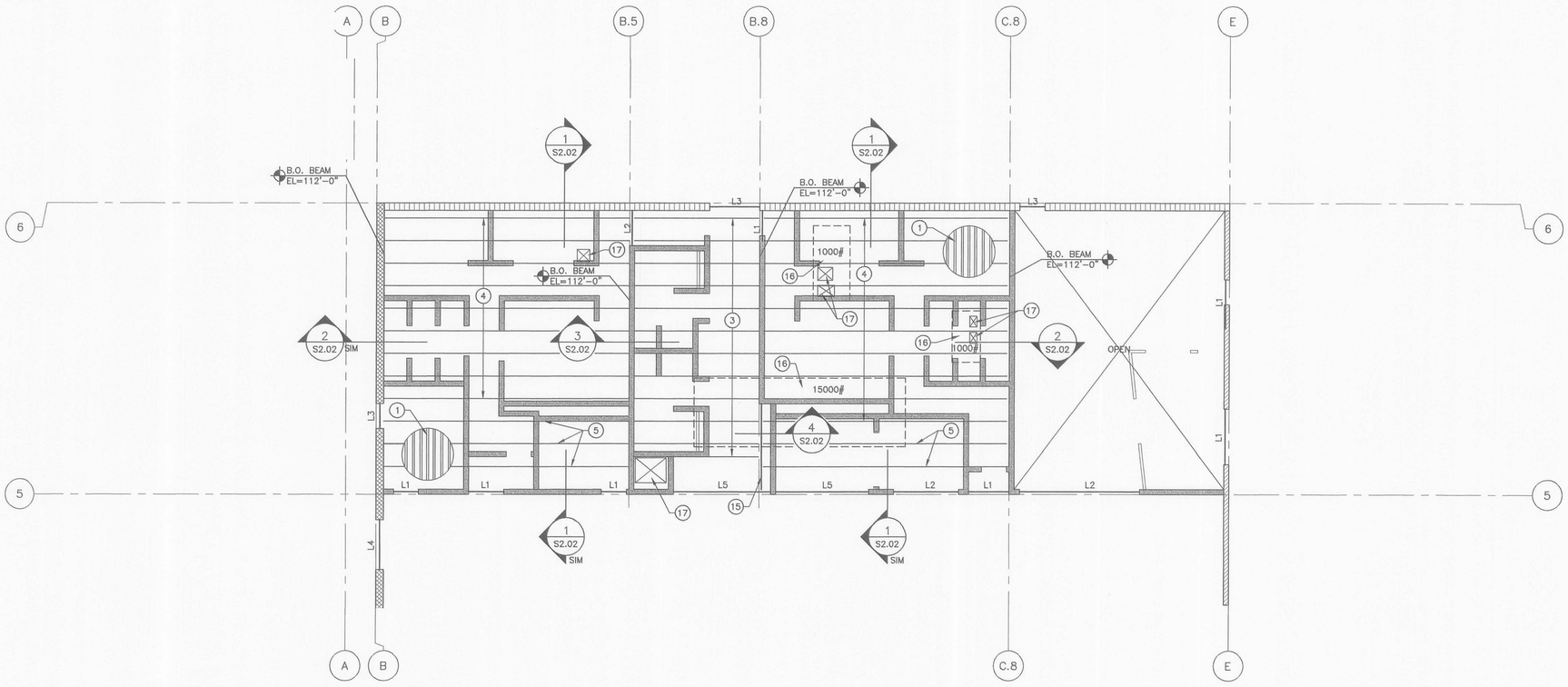
Raton Aquatics Center
Raton, New Mexico

MCA Project No.: RAT 051-12

ROOF FRAMING PLAN

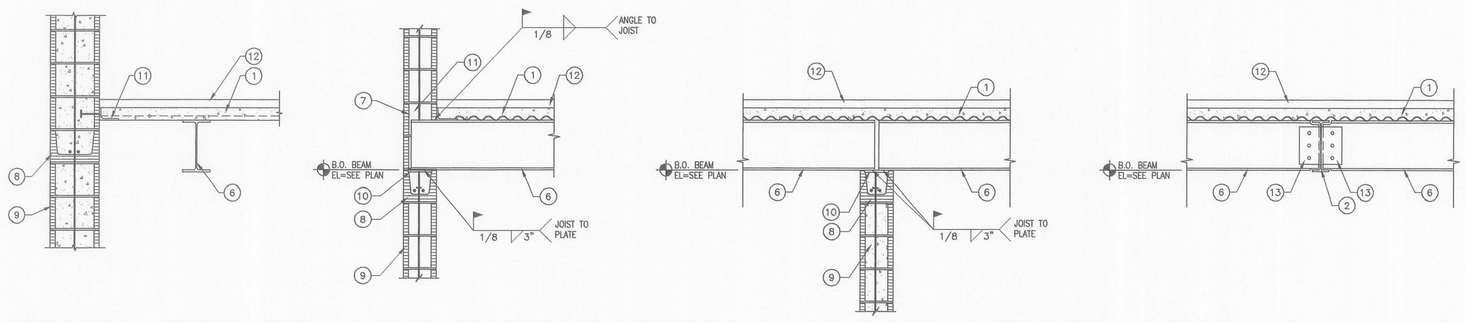
PROJECT ARCHITECT: John Quinn Pate, RA
Designrd By: T. Dempsey
Drawn by: R. RODRIGUEZ
Checked by: R. PFEIFFER

S2.01




## MECHANICAL LEVEL FRAMING PLAN

SCALE: 1/8"=1'-0"




1 S2.02 SECTION
SCALE: 3/4"=1'-0"

2 S2.02 SECTION
SCALE: 3/4"=1'-0"

3 S2.02 SECTION
SCALE: 3/4"=1'-0"

4 S2.02 SECTION
SCALE: 3/4"=1'-0"

## KEYED NOTES

1. 4" TOTAL DEPTH; 3" NORMAL WEIGHT CONCRETE W/6x6 W2.1xW2.1 WWF CENTERED IN SLAB ON 1" TYPE C 22 GA GALV. METAL DECK W/ MINIMUM SECTION PROPERTIES: I=0.07in , Sp=0.13in , Sn=0.13in . ATTACH WITH 33/4 WELD PATTERN @ SUPPORTS AND (3) #10 TEK SCREWS @ SIDELAPS. MAINTAIN 3 SPAN MINIMUM
2. HEADER BEAM, SEE PLAN FOR REQUIREMENTS
3. W12x14 Fy=50ksi STEEL BEAMS @ 3'-0" O.C.
4. W12x35 Fy=50ksi STEEL BEAMS @ 3'-0" O.C.
5. W12x45 Fy=50ksi STEEL BEAMS @ 3'-0" O.C.
6. STEEL WIDE FLANGE JOISTS SEE PLAN FOR REQUIREMENTS
7. PROVIDE MASONRY BLOCKOUT @ JOIST/BEAM BEARING LOCATIONS
8. KNOCKOUT BOND BEAM W/(2) #4 GRADE 60 BARS CONTINUOUS
9. MASONRY WALL, SEE LEGEND ON PLANS FOR REQUIREMENTS
10. EMBED PLATE 6x6x¼ W(2) ½"ø x 6" LONG H.A.S. CENTERED IN MASONRY CELLS
11. L4x4x¼ CONTINUOUS LLH W/½" DIA. F1554 GRADE 36 ANCHOR BOLTS EMBEDDED 6" MIN.
12. ROOFING SEE ARCHITECTURAL
13. ⅜" SHEAR PLATE W/(3)¾"DIA. A325 BOLTS
14. NOT USED
15. W12x22 Fy=50ksi STEEL HEADER BEAMS @ 3'-0" O.C.
16. MECHANICAL UNIT SEE MECHANICAL DRAWINGS
17. MECHANICAL PENETRATIONS SEE MECHANICAL DRAWINGS PROVIDE OPENING FRAMING AS REQUIRED PER DETAIL ON SHEET S0.01

## LEGEND

- L# — MASONRY LINTEL SEE SCHEDULE ON SHEET S0.01
- 12" MASONRY WALL W/(2)#4 VERTICAL BARS (ONE EACH FACE 2¼" CLR.) @ 8" O.C. AND 9GAGE TRUSS REINFORCEMENT @ 16" O.C. GROUT ALL REINFORCED CELLS. SEE SHEET S0.01 FOR TYPICAL MASONRY DETAILS
- 8" MASONRY WALL W/#8 VERTICAL BARS @ 24" O.C. CENTERED IN WALL AND 9GAGE TRUSS REINFORCEMENT @ 16" O.C. GROUT ALL REINFORCED CELLS. SEE SHEET S0.01 FOR TYPICAL MASONRY DETAILS
- 8" MASONRY WALL W/#4 VERTICAL BARS @ 24" O.C. CENTERED IN WALL AND 9GAGE TRUSS REINFORCEMENT @ 16" O.C. GROUT ALL REINFORCED CELLS. SEE SHEET S0.01 FOR TYPICAL MASONRY DETAILS
- 12" MASONRY WALL W/(2)#5 VERTICAL BARS (ONE EACH FACE 2¼" CLR.) @ 32" O.C. AND 9GAGE TRUSS REINFORCEMENT @ 16" O.C. GROUT ALL REINFORCED CELLS. SEE SHEET S0.01 FOR TYPICAL MASONRY DETAILS
- 1⅝"x6"x18GAGE STUDS @ 16" O.C.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QPEC
QUIROGA-PFEIFFER ENGINEERING CORPORATION



NOTICE OF EXTENDED PAYMENT PROVISION: THIS CONTRACT ALLOWS THE OWNER TO MAKE PAYMENT WITHIN 45 DAYS AFTER SUBMISSION OF AN UNDISPUTED REQUEST FOR PAYMENT


REGISTERED RICHARD S. PFEIFFER NEW MEXICO 11155 PROFESSIONAL ENGINEER
6/24/07

| Issues/Revisions: | Date: |
|---|---|
| Bid Document | 6-24-07 |

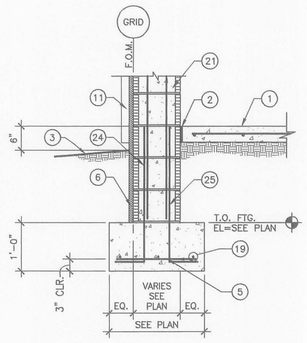
Raton Aquatics Center
Raton, New Mexico

MCA Project No.: RAT 051-12

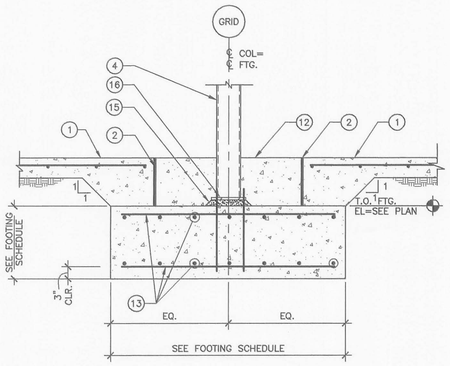
MECHANICAL LEVEL FRAMING PLAN

PROJECT ARCHITECT: John Quinn Pate, RA
Designrd By: T. Dempsey
Drawn by: R. RODRIGUEZ
Checked by: R. PFEIFFER

S2.02




1 SECTION S3.01 SCALE: 3/4"=1'-0"

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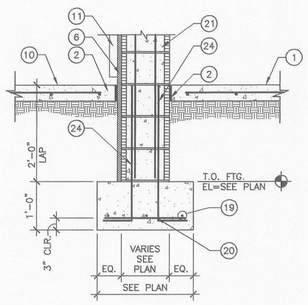


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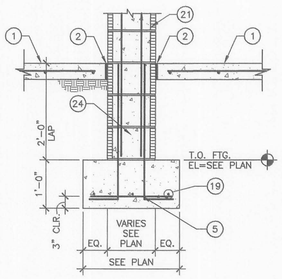


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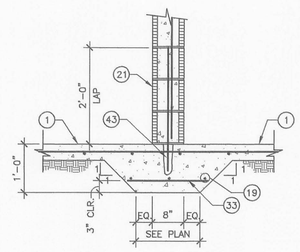


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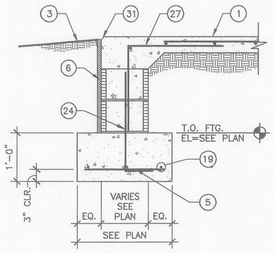


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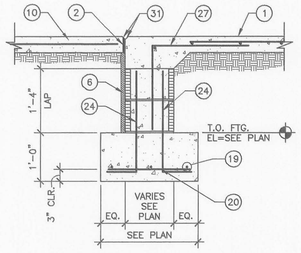


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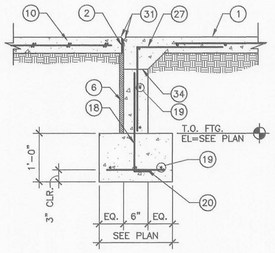


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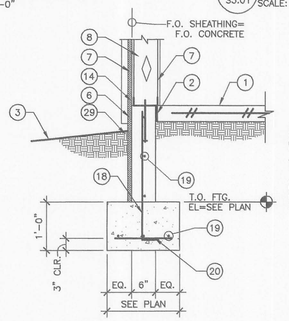


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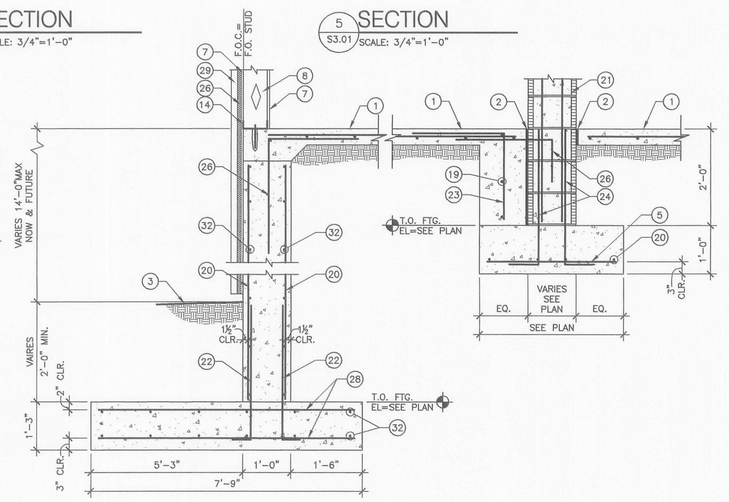


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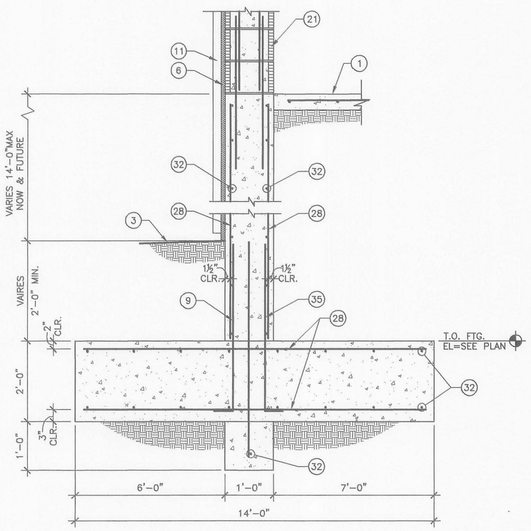


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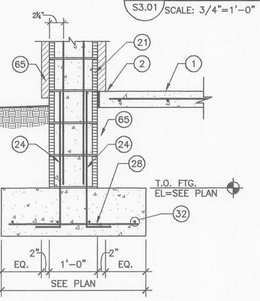


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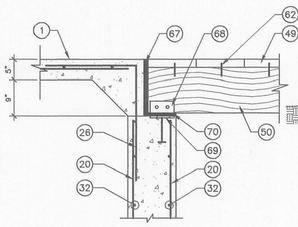


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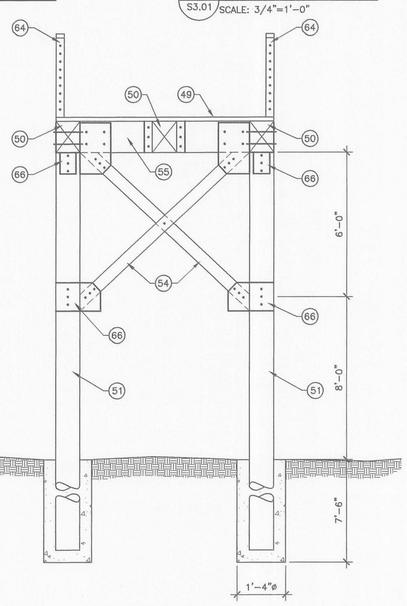


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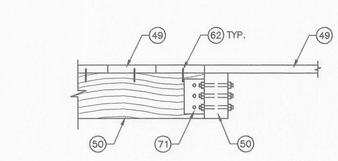


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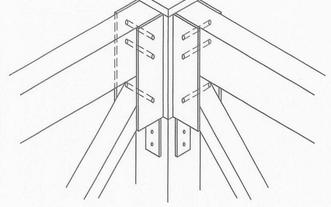


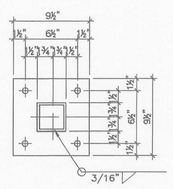
16 ISOMETRIC S3.01 SCALE: 3/4"=1'-0"

## KEYED NOTES

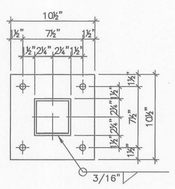
1. SLAB ON GROUND, SEE FOUNDATION PLAN FOR REQUIREMENTS
2. ½" EXPANSION JOINT MATERIAL
3. FINISH GRADE OR EXTERIOR SLAB
4. STEEL COLUMN, SEE FOUNDATION PLAN FOR REQUIREMENTS
5. #5 @ 8" O.C
6. RIGID INSULATION, SEE ARCHITECTURAL DRAWINGS
7. GYPBOARD, SEE ARCHITECTURAL DRAWINGS
8. STEEL STUDS, SEE PLAN FOR REQUIREMENTS
9. #5 DOWELS @ 12" O.C.
10. EXTERIOR CONCRETE SLAB, SEE ARCHITECTURAL DRAWINGS FOR REQUIREMENTS
11. METAL WALL PANEL SEE ARCHITECTURAL
12. CONCRETE SLAB BLOCKOUT
13. FOUNDATION REINFORCING, SEE FOUNDATION SCHEDULE THIS SHEET FOR REQUIREMENTS
14. 16GAGE CONT. TRACK W/⅝"DIA. THREADED RODS DRILLED & EPOXIED 6" MIN INTO STEMWALL @ 4'-0" O.C. MAX & 1'-0" O.C. FROM ENDS OF WALLS
15. 1½" NON-SHRINK LEVELING GROUT
16. BASEPLATE AND ANCHORBOLTS, SEE FOUNDATION SCHEDULE ON THIS SHEET FOR REQUIREMENTS
17. #4 @ 12" O.C. CONT.
18. #5 DOWELS @ 12" O.C. ALT. HOOK
19. (3) #4 CONT.
20. #5 @ 12" O.C.
21. MASONRY WALL, SEE PLAN FOR REQUIREMENTS
22. #8 DOWELS @ 12" O.C.
23. #4 DOWELS @ 12" O.C.
24. DOWELS TO MATCH VERTICAL REINFORCEMENT, SEE PLAN
25. EXISTING WALL
26. #5 DOWELS @ 24" O.C. INTO MASONRY WALL
27. #5 DOWELS 4'-0" / 2'-0" @ 16" O.C.
28. #6 @ 12" O.C.
29. WALL FINISH SEE ARCHITECTURAL
30. #5 DOWELS @ 16" O.C.
31. ¾" CHAMFER AT EXPOSED EDGE
32. #4 @ 12" O.C.
33. #5 @ 16" O.C.
34. OPTIONAL CONTROL JOINT
35. #7 DOWELS @ 6" O.C.
36. #5 DOWELS @ 32" O.C. DRILLED & EMBEDED 6" INTO EXISTING FOOTING W/ EPCON A7 ADHESIVE OR EQUAL.
37. #5 DOWELS @ 8" O.C. EF
38. CONCRETE PEDESTAL W/ (4)#6 VERTICAL & (3)#3 TIES
39. ELEVATOR PIT WALL CAST-IN-PLACE
40. #5 DOWELS @ 32" O.C. ALT HOOKS
41. EMBEDDED STL SLEEVE TO RECEIVE HANDRAIL
42. #5 DOWELS @ 12" O.C. DRILLED & EMBEDDED 6" INTO EXISTING FOOTING W/EPCON A7 ADHESIVE OR EQUAL
43. #5 REINF BARS @ 32" O.C. EMBEDDED 4" INTO FOOTING W/ EPCON A7 ACRYLIC ADHESIVE OR EQUAL
44. SOLID CAP BLOCK SEE ARCHITECTURAL FOR DRAWINGS FOR REQUIREMETNS
45. SPLIT FACE BLOCK MASONRY WALL. SEE ARCHITECTURAL DRAWINGS FOR BLOCK REQUIREMENTS
46. #4 @ 32" O.C.
47. REMOVE FOOTING TO FACE OF WALL TO ALLOW FOR INSTALLATION OF PIT SLAB
48. 4x4 HORIZONTAL
49. 2x12 REDWOOD DECKING OR BETTER
50. 6x12 DOUG FIR No.2 OR BETTER WOOD BEAM (MIN. STRUCT. SIZE 4x12)
51. 8"x8 DOUG FIR No.2 OR BETTER WOOD POST
52. 2x2 @ 4" O.C.
53. 4x4 POSTS @ 8'-2" O.C.
54. 6x6 DOUG FIR No.2 OR BETTER CROSS BRACING. NOTCH @ CENTER & BOLT TOGETHER W/(1)¾" THRU BOLT
55. 8x8 PIER CAP
56. ¼" THICK SADDLE HANGER
57. 4"x4"x3 GA. W/ (2)¾"DIA. BOLTS (TYP)
58. T-STRAP TIES W/ (4)¾"DIA. BOLTS
59. #5 DRIFT PIN AT EACH TIMBER PILE (TYP.)
60. 4x8 BRACING (TYP.)
61. 8x4 BRACING (TYP.)
62. COUNTERSINK ⅜"DIA. LAG SCREW GALVANIZED
63. TREAT HOLES W/WOOD PRESERVATIVE PRIOR TO INSTALLING SCREW
64. CABLE RAILS SEE ARCHITECTURAL DRAWINGS
65. SYNTHETIC STONE, SEE ARCHITECTURAL DRAWINGS
66. FABRICATE ½" THICK STEEEL PLATE CONNECTIONS TYPICAL SEE 16/S3.01
67. 1" EXPANSION JOINT MATERIAL
68. ¾" THICK SHOE PLATE W/(2)¾"DIA. A325 THRU BOLTS
69. ½"THICK x 6" WIDE x 10" LONG EMBED PLATE W/(2) ½" x 6" H.A.S.
70. ¾" THICK ELASTOMERIC BEARING PLAD
71. ¾" THICK CONNECTION PLATE W/(3) ¾"DIA. A325 BOLTS
72. #6 DOWELS @ 12" O.C.
73. PROVIDE WATER STOP

## SPOT FOOTING SCHEDULE

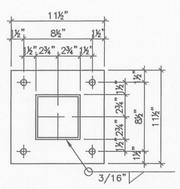
| MARK | FOOTING SIZE | REINFORCEMENT | BASEPLATE TYPE/THICKNESS | ANCHOR BOLT SIZE & TYPE |
|---|---|---|---|---|
| 1 | 3'-6" x 3'-6" x 1'-0" | (4)#5 E.W. TOP & BOTTOM | ⅝" THICK TYPE B | (4) ¾" DIA. F1554 TYPE 1 (EMBED DEPTH = 9") |
| 2 | 4'-3" x 4'-3" x 1'-0" | (5)#5 E.W. TOP & BOTTOM | ¾"THICK TYPE C | (4) ¾" DIA. F1554 TYPE 1 (EMBED DEPTH = 9") |




BASE PLATE-TYPE A SCALE: NTS




BASE PLATE-TYPE B SCALE: NTS

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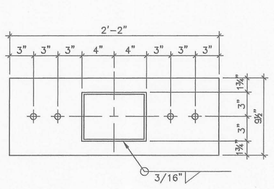


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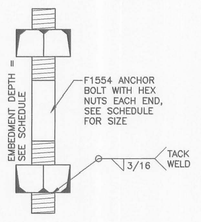


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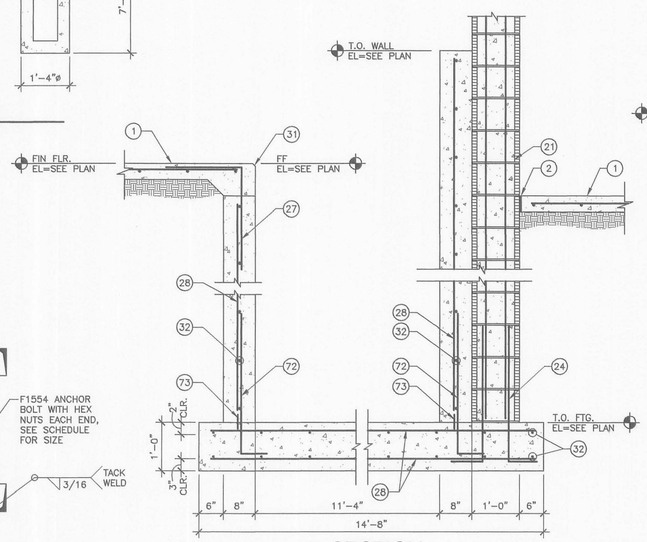
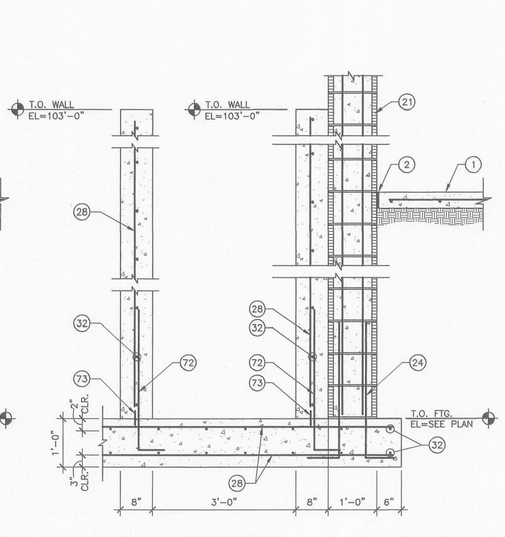



17 SECTION S3.01 SCALE: 3/4"=1'-0"

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RICHARD S. PFEIFFER NEW MEXICO 11155 REGISTERED PROFESSIONAL ENGINEER
6/24/07

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| Bid Document | 6-24-07 |

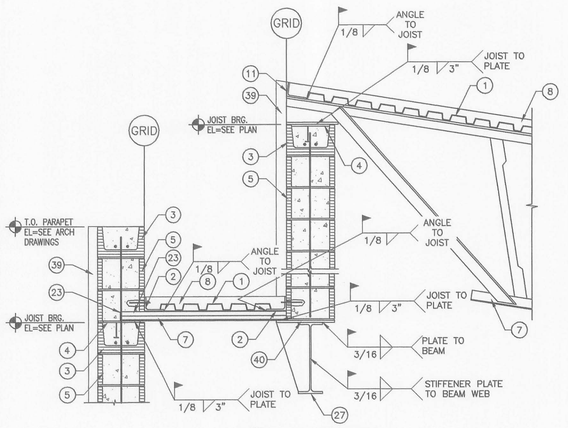
Raton Aquatics Center
Raton, New Mexico

MCA Project No.: RAT 05I-12

FOUNDATION SECTIONS

PROJECT ARCHITECT: John Quinn Pate, RA
Designrd By: T. Dempsey
Drawn by: R. RODRIGUEZ
Checked by: R. PFEIFFER

S3.01

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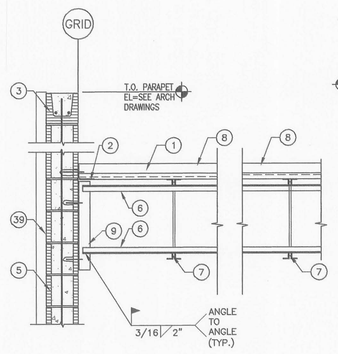


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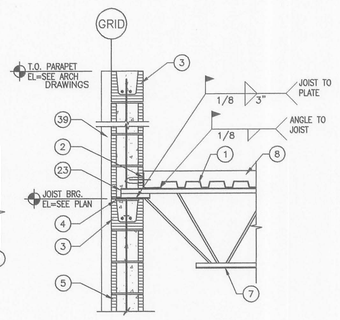


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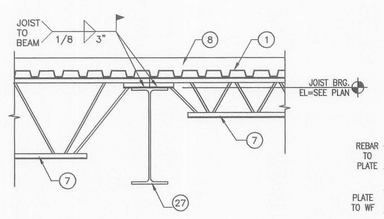


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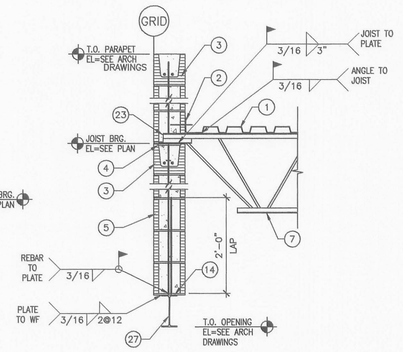


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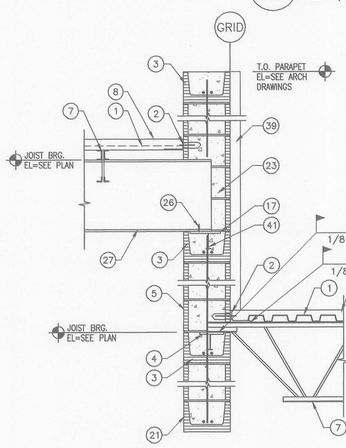


6 SECTION
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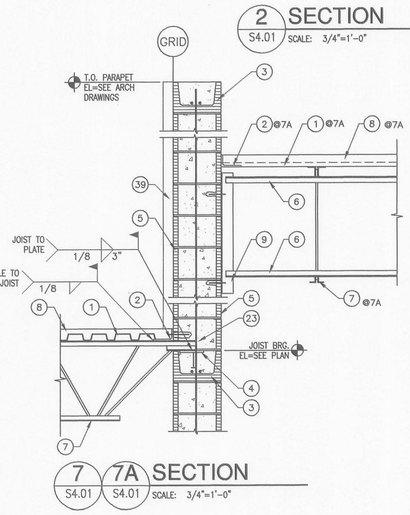


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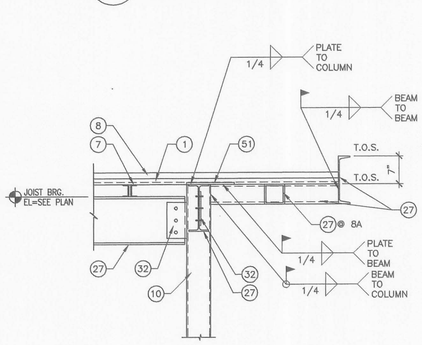


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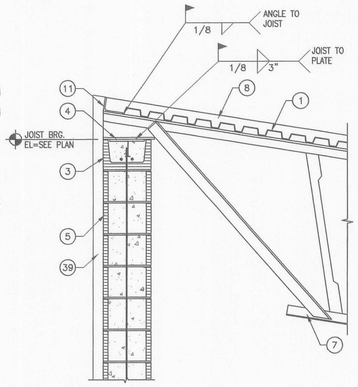
S4.01 S4.01 SCALE: 3/4"=1'-0"

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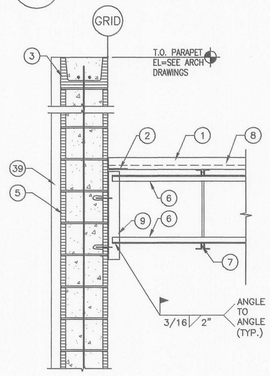


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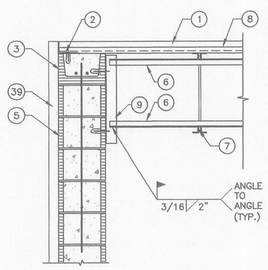


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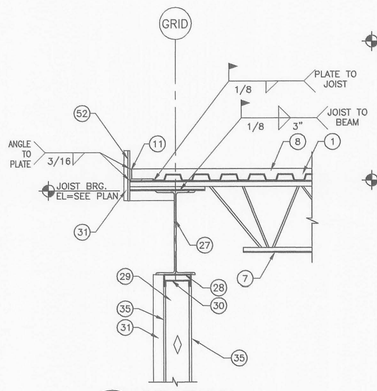


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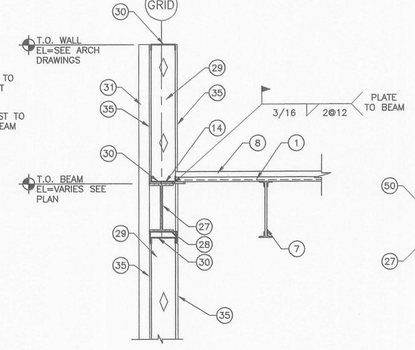


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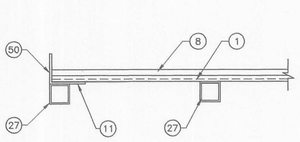

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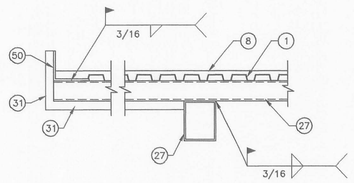


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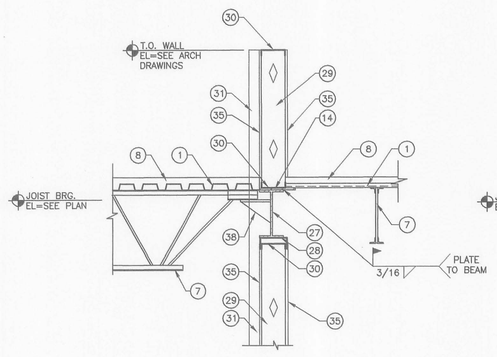


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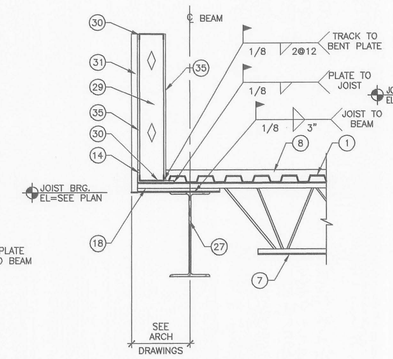


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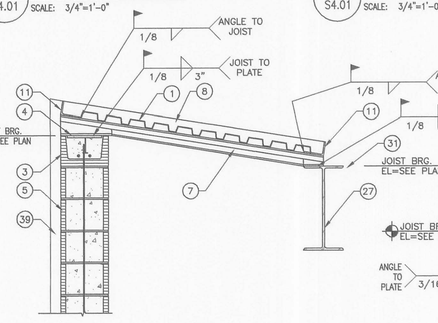


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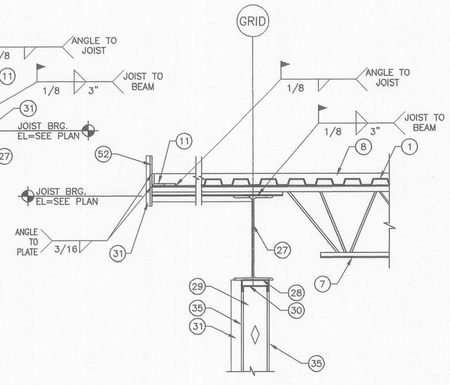


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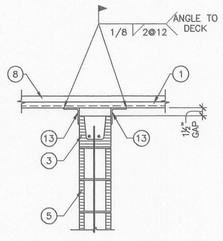


20 SECTION
S4.01 SCALE: 3/4"=1'-0"

## KEYED NOTES

1. METAL DECKING, SEE PLAN FOR REQUIREMENTS
2. L5x3x½" OR ½"x5"x3" BENT PLATE CONTINUOUS LLH W/½" DIA. THREADED RODS @ 24" O.C. EMBEDDED INTO GROUTED MASONRY CELLS 4" MIN. USING EPCON A7 ACRYLIC ADHESIVE OR EQUAL
3. KNOCKOUT BOND BEAM W/(2) #4 GRADE 60 BARS CONTINUOUS
4. EMBED PLATE 6"x6"x⅜" W/(1) ½"ø X6" LONG H.A.S. CENTERED
5. MASONRY WALL, SEE LEGEND ON PLANS FOR REQUIREMENTS
6. HORIZONTAL BRIDGING, PER MANUFACTURER REQUIREMENTS
7. STEEL JOIST, SEE FRAMING PLAN FOR REQUIREMENTS
8. ROOFING SEE ARCHITECTURAL FOR REQUIREMENTS
9. L3x3x¼" W/(2) ½" DIA. THREADED RODS EMBEDDED INTO MASONRY 4" MIN. USING EPCON A7 ACRYLIC ADHESIVE OR EQUAL
10. STEEL COLUMN, SEE PLAN FOR REQUIREMENTS
11. L5x3x¼" OR ¼"x5"x3" BENT PLATE CONTINUOUS LLH
12. ⅜" CAP PLATE W/(4)¾" A325 BOLTS
13. L4x4x¼ CONT.
14. ¼"x9"x3" BENT PLATE CONT.
15. PROVIDE ⅜" SHEAR PLATE W/(2) ROWS OF (2) A325 BOLTS
16. PROVIDE (4)¾"DIA. A36 THREADED RODS. EMBED 6" INTO SOLID GROUTED MASONRY CELLS W/EPCON A7 ADHESIVE OR EQUAL
17. EMBED PLATE 8x12x⅜ W/(2) ½"ø x 6" LONG H.A.S. CENTERED IN MASONRY CELLS
18. STEEL JOIST EXTENSION, SEE FRAMING PLAN FOR REQUIREMENTS
19. ¼"x6" CONT. PLATE W/½"DIA. x 4" H.A.S. @ 2'-0" O.C.
20. ¼"x12" CONT. PLATE
21. MASONRY LINTEL SEE SHEET S0.01 FOR REQUIREMENTS
22. ¼"x10" CONT. PLATE
23. PROVIDE MASONRY BLOCKOUT @ JOIST/BEAM BEARING LOCATIONS
24. 4" CAP BLOCK
25. VERTICAL SLIDE CLIP SEE AT EACH END
26. (2) ¾" DIA. THREADED RODS WELDED TO EMBED PLATE W/5/16" FILLET WELD ALL AROUND. CENTER RODS IN 3" LONG SLOTTED HOLES IN BOTTOM FLANGE OF BEAM
27. STEEL BEAM, SEE PLAN FOR REQUIREMENTS
28. 16GA VERTICAL DEFLECTION TRACK
29. 1⅝"x6"x18 GAGE STEEL STUDS @ 16" O.C.
30. 16 GAGE CONTINUOUS TRACK
31. WALL FINISH SEE ARCHITECTURAL
32. ⅜" SHEAR PLATE WITH BOLTS PER TABLE BELOW

| BEAM SIZE | BOLT SIZE | # REQUIRED |
|---|---|---|
| W10 | ¾"DIA. A325N | 2 |
| W12,14 | ¾"DIA. A325N | 3 |
| W16 | ¾"DIA. A325N | 4 |
| W18 | ¾"DIA. A325N | 5 |
| W21 | ¾"DIA. A325N | 6 |
| W24 | ¾"DIA. A325N | 7 |
| W27 | ¾"DIA. A325N | 8 |

33. 1⅝"x3⅝"x20GA STEEL STUDS @ 24" O.C. EACH DIRECTION. HEIGHT OF STUD VARIES TO ACHIEVE ROOF SLOPE SEE ARCHITECTURAL
34. ⅝" GYPSUM BOARD W/#8 x ⅝" LONG WAFERHEAD SELFDRILLING DRYWALL SCREWS @ 7" O.C. AT ALL PANEL EDGES AND 7" O.C. AT ALL SUPPORTS
35. SHEATHING, SEE ARCHITECTURAL
36. SYNTHETIC STONE SEE ARCHITECTURAL
37. 16"x16" CONCRETE LINTEL W/(3)#6 TOP & BOTTOM AND #3 TIES @ 8" O.C. EXTEND CONCRETE LINTEL 16" EACH END PAST OPENING
38. ⅜"x6"x6" BRG. SEAT W/⅜" STIFFENER PLATE
39. METAL WALL PANEL, SEE ARCHITECTURAL
40. ¾" BEARING PLATE W/⅜" STIFFENER PLATE @ JOIST BRG. LOCATIONS. PLATE SHALL ALLOW FOR 3" JOIST BEARING LENGTH
41. PROVIDE ⅛" THICK TEFLON PAD BETWEEN EMBED PLATE & BEAM FLANGE
42. C6x8.2 CONT. UNDER CRIB WALL
43. CUT BLOCK TO ACHIEVE JOIST BRG. LOCATION
44. ⅜" THICK x 4" WIDE x 12" LONG STEEL PLATE CENTERED ON STEEL BEAM
45. ¼" THICK x 7" WIDE x 6" LONG STEEL PLATE CENTERED ON STEEL BEAM
46. BACKER BAR
47. ⅜" CAP PLATE
48. DECK CLOSURE STRIP
49. ¼"x8"X8" EMBED PLATE W/(2)½"DIA. x 6" H.A.S. INTO SOLID GROUTED CELLS
50. ¼"x7½"X5" BENT PLATE LLV CONTINUOUS
51. ½"x4" WIDE x 1'-0" LONG PLATE
52. ¾"x12½" CONTINUOUS PLATE

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QPEC
QUIROGA-PFEIFFER ENGINEERING CORPORATION

NOTICE OF EXTENDED PAYMENT PROVISION: THIS CONTRACT ALLOWS THE OWNER TO MAKE PAYMENT WITHIN 45 DAYS AFTER SUBMISSION OF AN UNDISPUTED REQUEST FOR PAYMENT

RICHARD S. PFEIFFER NEW MEXICO 11155 REGISTERED PROFESSIONAL ENGINEER
6/24/07

| Issues/Revisions: | Date: |
|---|---|
| Bid Document | 6-24-07 |

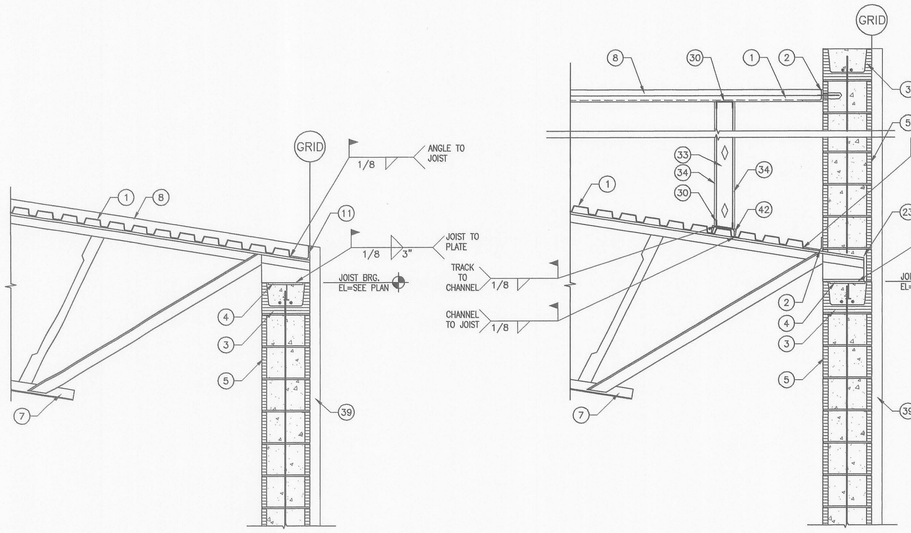
Raton Aquatics Center
Raton, New Mexico

MCA Project No.: RAT 051-12

FRAMING SECTIONS

PROJECT ARCHITECT: John Quinn Pate, RA
Designrd By: T. Dempsey
Drawn by: R. RODRIGUEZ
Checked by: R. PFEIFFER

S4.01

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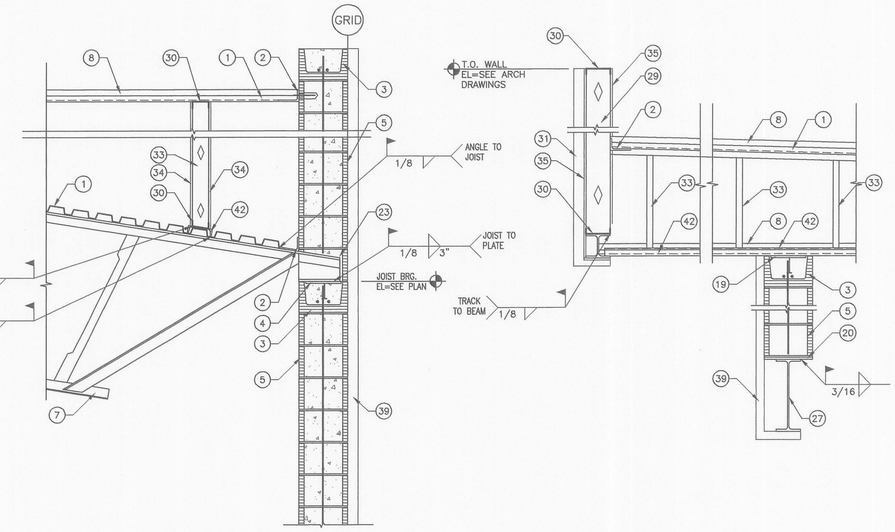


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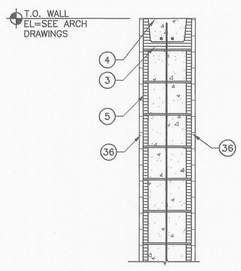


4 SECTION S4.02 SCALE: 3/4"=1'-0"




5 SECTION S4.02 SCALE: 3/4"=1'-0"




6 SECTION S4.02 SCALE: 3/4"=1'-0"




7 SECTION S4.02 SCALE: 3/4"=1'-0"




8 SECTION S4.02 SCALE: 3/4"=1'-0"

## KEYED NOTES

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2. L5x3x¼" OR ¼"x5"x3" BENT PLATE CONTINUOUS LLH W/½" DIA. THREADED RODS @ 24" O.C. EMBEDDED INTO GROUTED MASONRY CELLS 4" MIN. USING EPCON A7 ACRYLIC ADHESIVE OR EQUAL
3. KNOCKOUT BOND BEAM W/(2) #4 GRADE 60 BARS CONTINUOUS
4. EMBED PLATE 6"x6"x⅜" W/(1) ⅝"ø X6" LONG H.A.S. CENTERED
5. MASONRY WALL, SEE LEGEND ON PLANS FOR REQUIREMENTS
6. HORIZONTAL BRIDGING, PER MANUFACTURER REQUIREMENTS
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24. 4" CAP BLOCK
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| W16 | ¾"DIA. A325N | 4 |
| W18 | ¾"DIA. A325N | 5 |
| W21 | ¾"DIA. A325N | 6 |
| W24 | ¾"DIA. A325N | 7 |
| W27 | ¾"DIA. A325N | 8 |

33. 1⅝"x3⅝"x20GA STEEL STUDS @ 24" O.C. EACH DIRECTION. HEIGHT OF STUD VARIES TO ACHIEVE ROOF SLOPE SEE ARCHITECTURAL
34. ⅝" GYPSUM BOARD W/#8 x ⅝" LONG WAFERHEAD SELFDRILLING DRYWALL SCREWS @ 7" O.C. AT ALL PANEL EDGES AND 7" O.C. AT ALL SUPPORTS
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RICHARD S. PFEIFFER NEW MEXICO 11155 REGISTERED PROFESSIONAL ENGINEER
6/24/07

| Issues/Revisions: | Date: |
|---|---|
| Bid Document | 6-24-07 |

Raton Aquatics Center
Raton, New Mexico

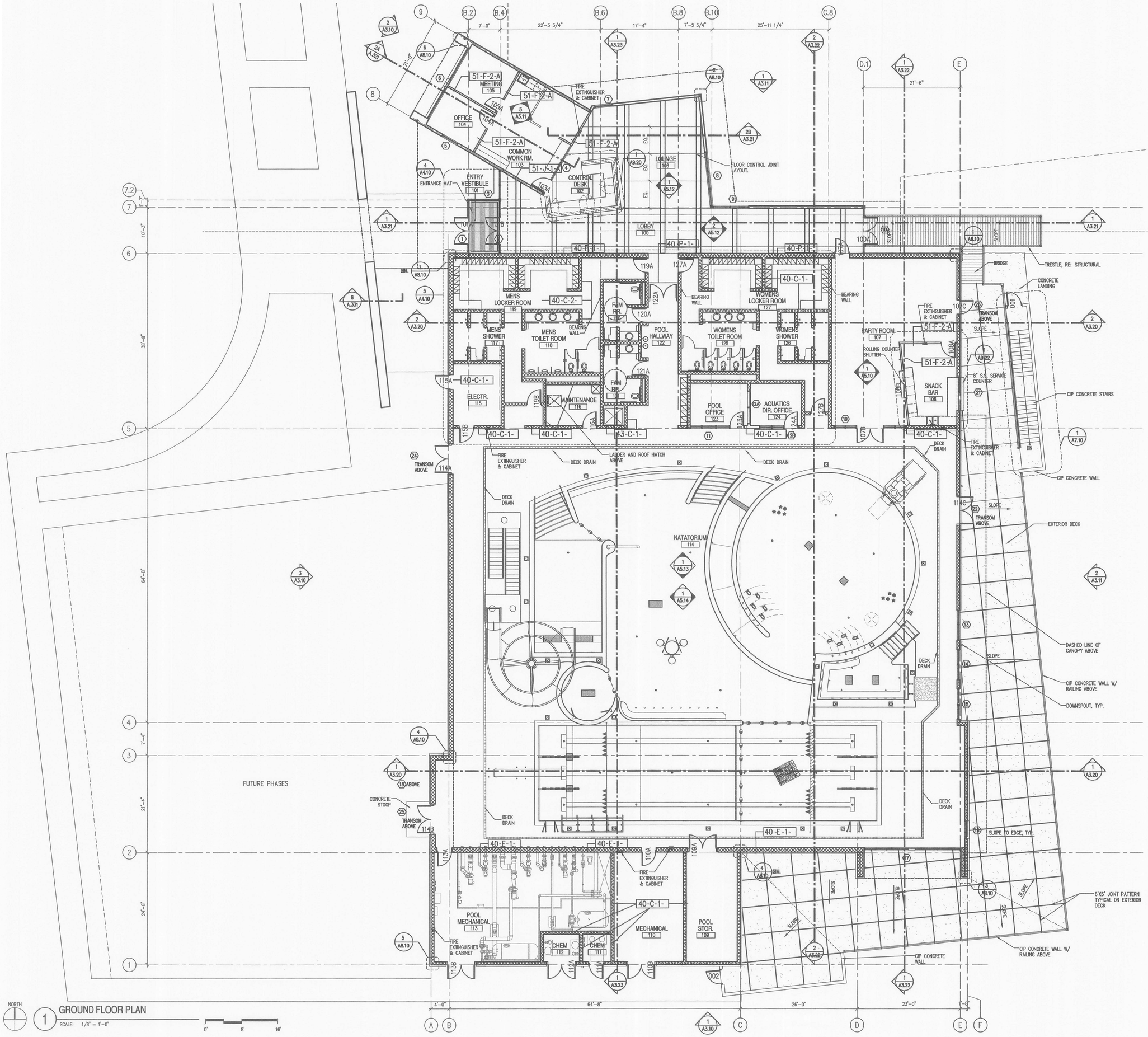
MCA Project No.: RAT 051-12

FRAMING SECTIONS

PROJECT ARCHITECT: John Quinn Pate, RA
Designrd By: T. Dempsey
Drawn by: R. RODRIGUEZ
Checked by: R. PFEIFFER

S4.02

13-07




NORTH

1 GROUND FLOOR PLAN

SCALE: 1/8" = 1'-0"

0' 8' 16'


Molzen-Corbin & Associates

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STATE OF NEW MEXICO
JOHN QUINN PATE
NO. 11784
REGISTERED ARCHITECT
6/24/07

| Issues/Revisions: | Date: |
|---|---|
| Bid Document | 6-24-07 |

Raton Aquatics Center
Raton, New Mexico

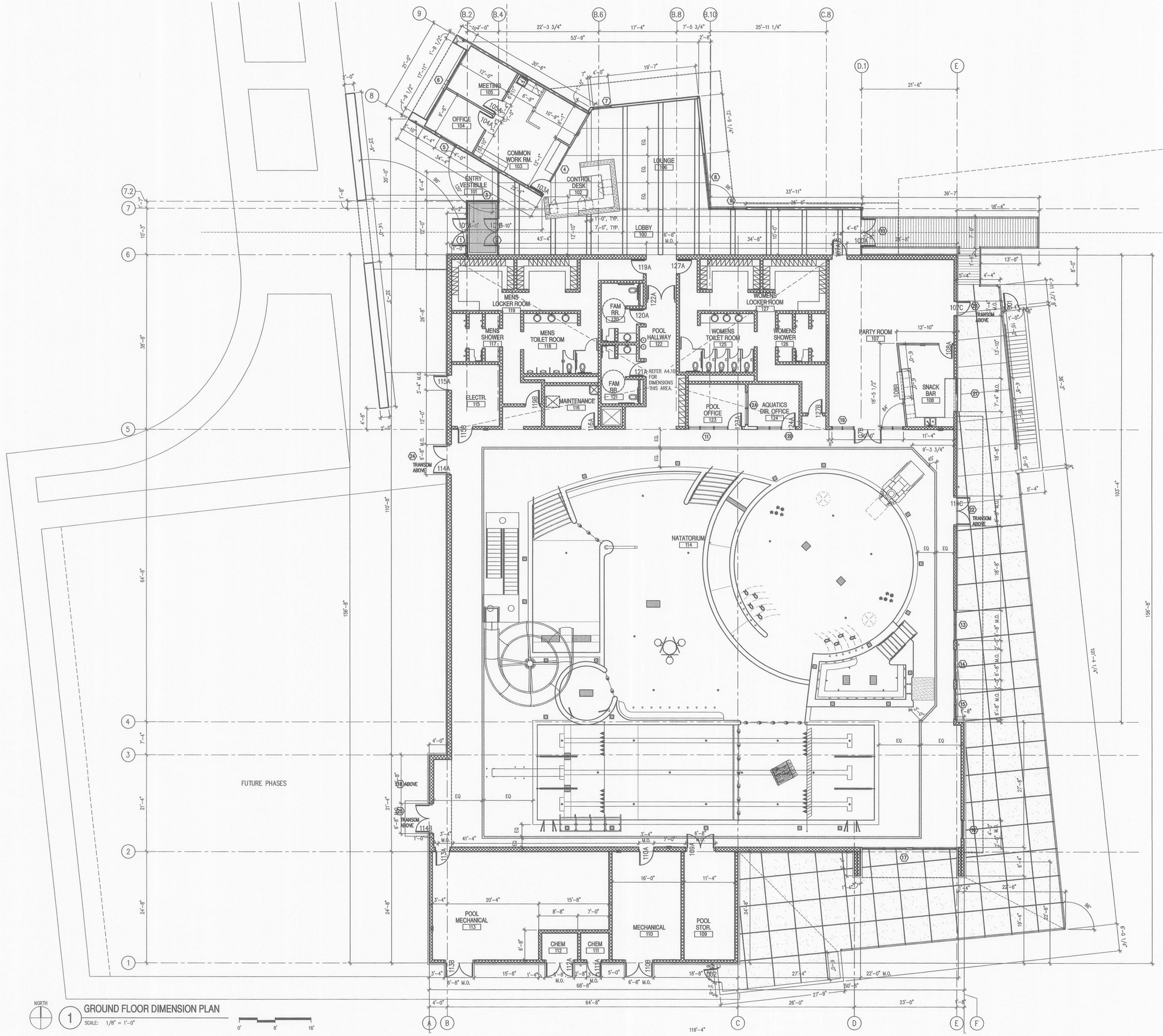
MCA Project No.: RAT 051-12

GROUND LEVEL FLOOR PLAN

PROJECT ARCHITECT: John Quinn Pate, RA

Drawn by: MCD/ SCD
Checked by: JQP

A2.10




NORTH

1 GROUND FLOOR DIMENSION PLAN

SCALE: 1/8" = 1'-0"

0' 8' 16'


Molzen-Corbin & Associates

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STATE OF NEW MEXICO
JOHN QUINN PATE
NO. 11784
REGISTERED ARCHITECT
6/29/07

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|---|---|
| Bid Document | 6-24-07 |

Raton Aquatics Center
Raton, New Mexico

MCA Project No.: RAT 051-12

GROUND FLOOR DIMENSION PLAN

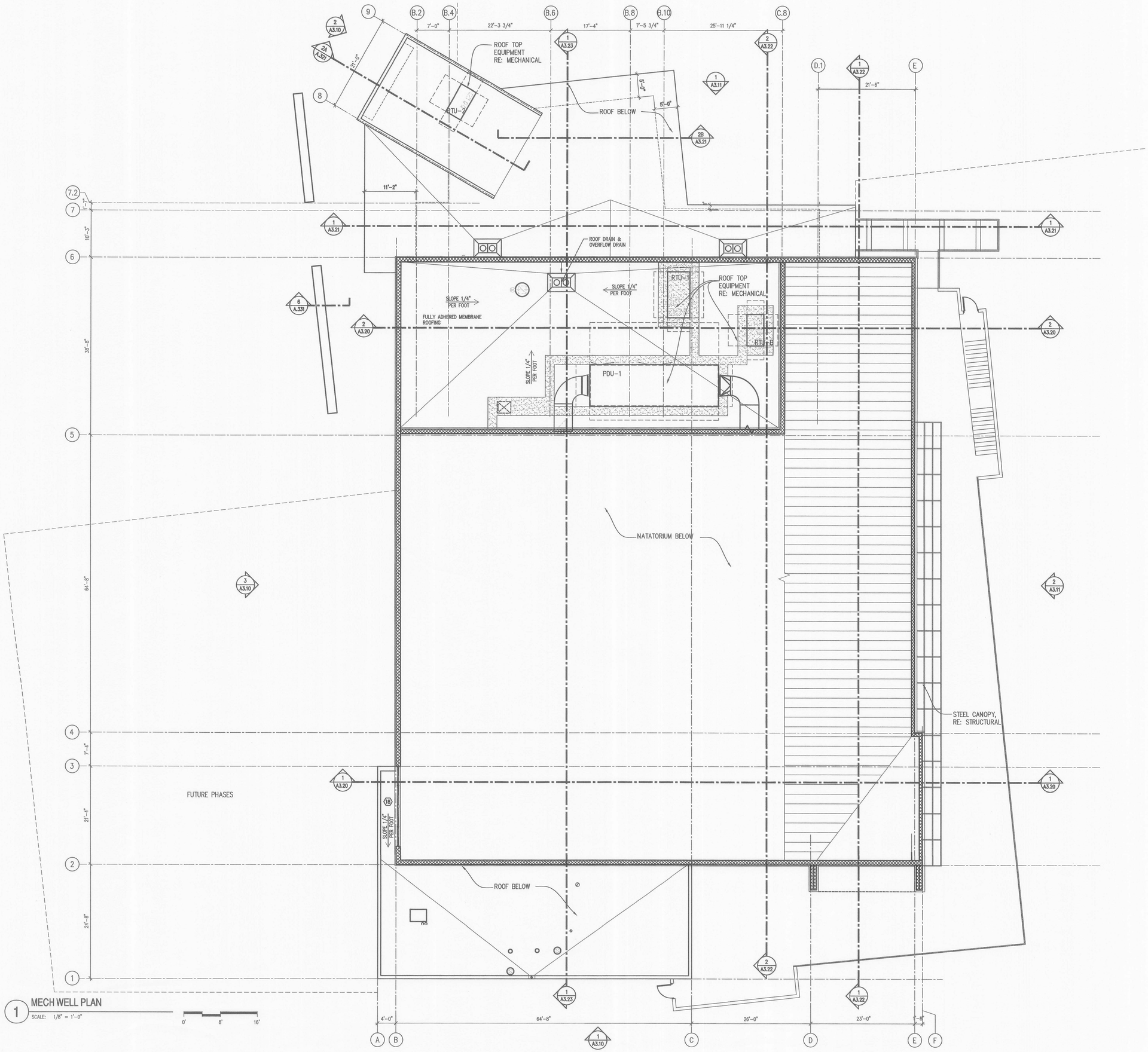
PROJECT ARCHITECT: John Quinn Pate, RA

Drawn by: MCA/ SCD
Checked by: JQP

A2.11

GENERAL NOTES

1. ALL DIMENSIONS ARE TO OUTSIDE FACE OF CMU.
2. ALL DIMENSIONS ARE TO FACE OF METAL STUD WALL UNO.
3. ALL DOORS IN METAL STUD WALLS ARE 4" FROM ADJOINING WALL, U.N.O.




ROOF LEGEND

ROOF MOUNTED EQUIPMENT SEE MECHANICAL DRAWINGS

2'-0" MIN. WIDE ROOF WALKWAY SURFACE RE: SPEC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STATE OF NEW MEXICO
JOHN QUINN PATE
NO. 7784
REGISTERED ARCHITECT

6/24/07

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|---|---|
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# Raton Aquatics Center

Raton, New Mexico

MCA Project No.: RAT 051-12

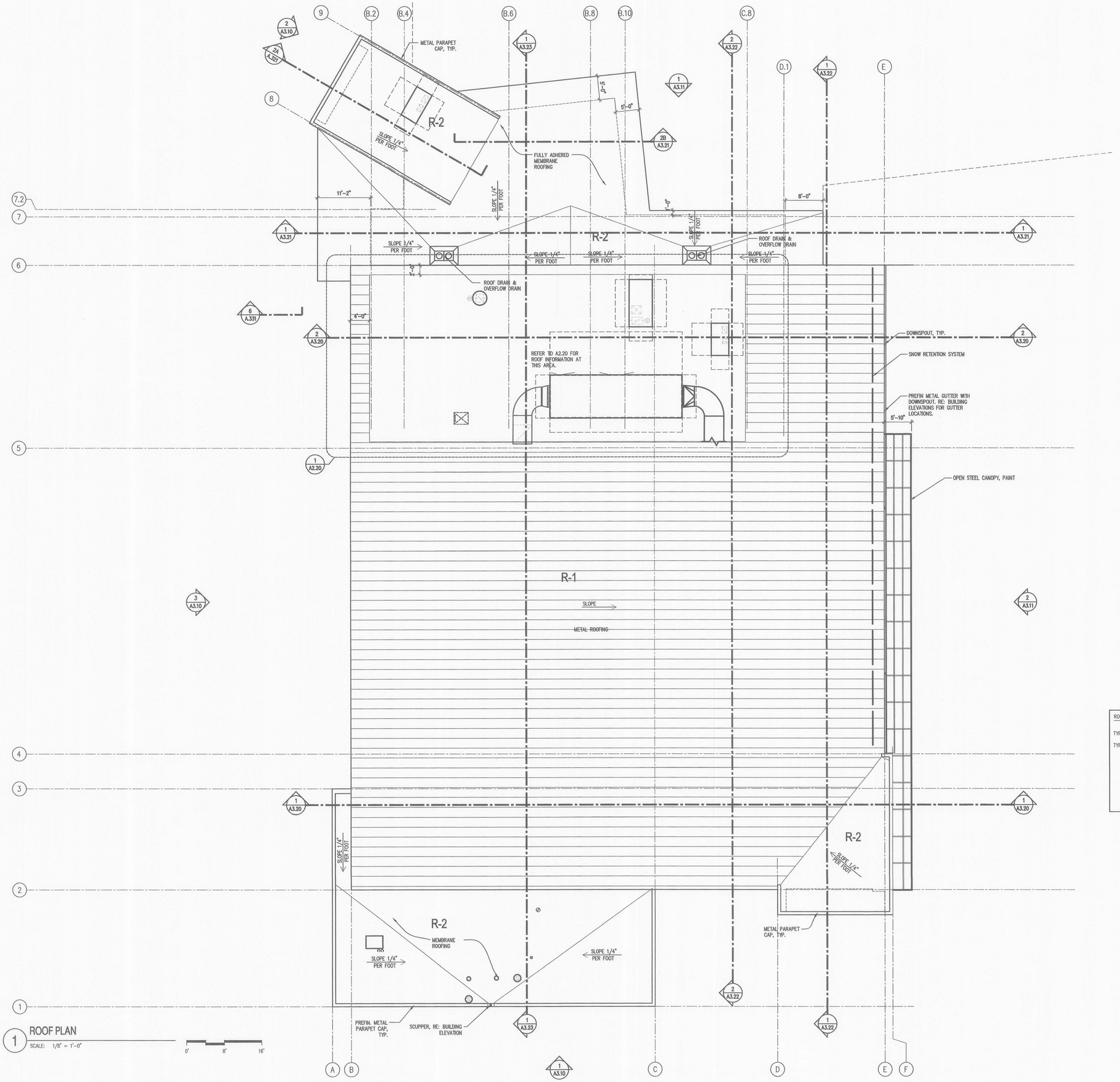
## MECHANICAL WELL PLAN

PROJECT ARCHITECT: John Quinn Pate, RA

Drawn by: MCA/SCD

Checked by: JQP

A2.20




NORTH

1 ROOF PLAN

SCALE: 1/8" = 1'-0"

0' 8' 16'

ROOF ASSEMBLY TYPES:

TYPE R-1 METAL ROOF SYSTEM

TYPE R-2 MEMBRANE ROOF SYSTEM

ROOF LEGEND

ROOF MOUNTED EQUIPMENT SEE MECHANICAL DRAWINGS

2'-0" MIN. WIDE ROOF WALKWAY SURFACE RE: SPEC


Molzen-Corbin & Associates

2701 Miles Road S.E.
Albuquerque, New Mexico 87106
voice (505) 242-5700
fax (505) 242-0673

SINK COMBS DETHLEFS

A Professional Corporation for Architecture
475 Lincoln Street, Suite 100
Denver, Colorado 80203
303 308 0200
FAX 308 0222


NOTICE OF EXTENDED PAYMENT PROVISION: THIS CONTRACT ALLOWS THE OWNER TO MAKE PAYMENT WITHIN 45 DAYS AFTER SUBMISSION OF AN UNDISPUTED REQUEST FOR PAYMENT

STATE OF NEW MEXICO JOHN QUINN PATE NO. 7784 REGISTERED ARCHITECT

6/24/07

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Raton Aquatics Center

Raton, New Mexico

MCA Project No.: RAT 051-12

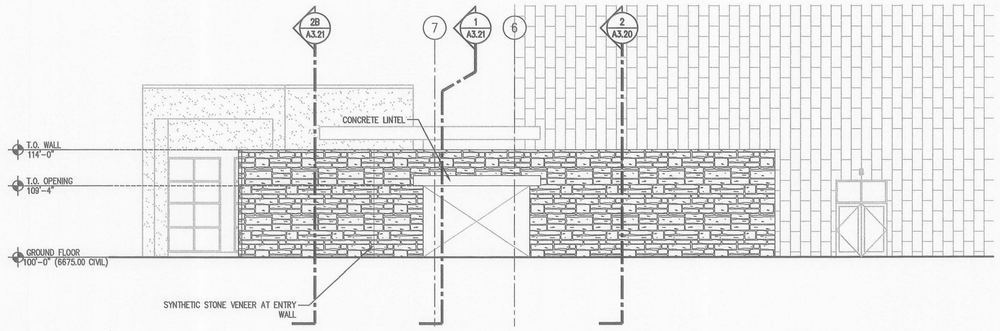
ROOF PLAN

PROJECT ARCHITECT: John Quinn Pate, RA

Drawn by: MCA/SCD

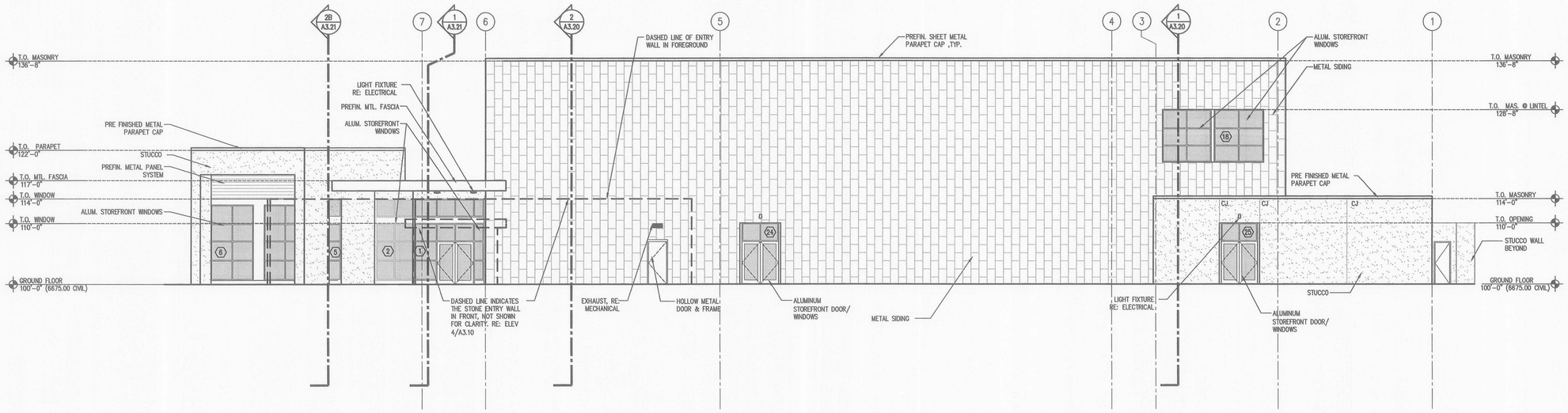
Checked by: JQP

A2.30




4 ENTRY WALL ELEVATION

SCALE: 1/8" = 1'-0"




3 WEST EXTERIOR ELEVATION

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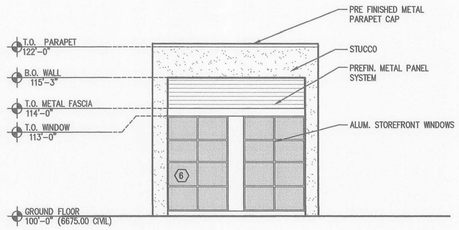
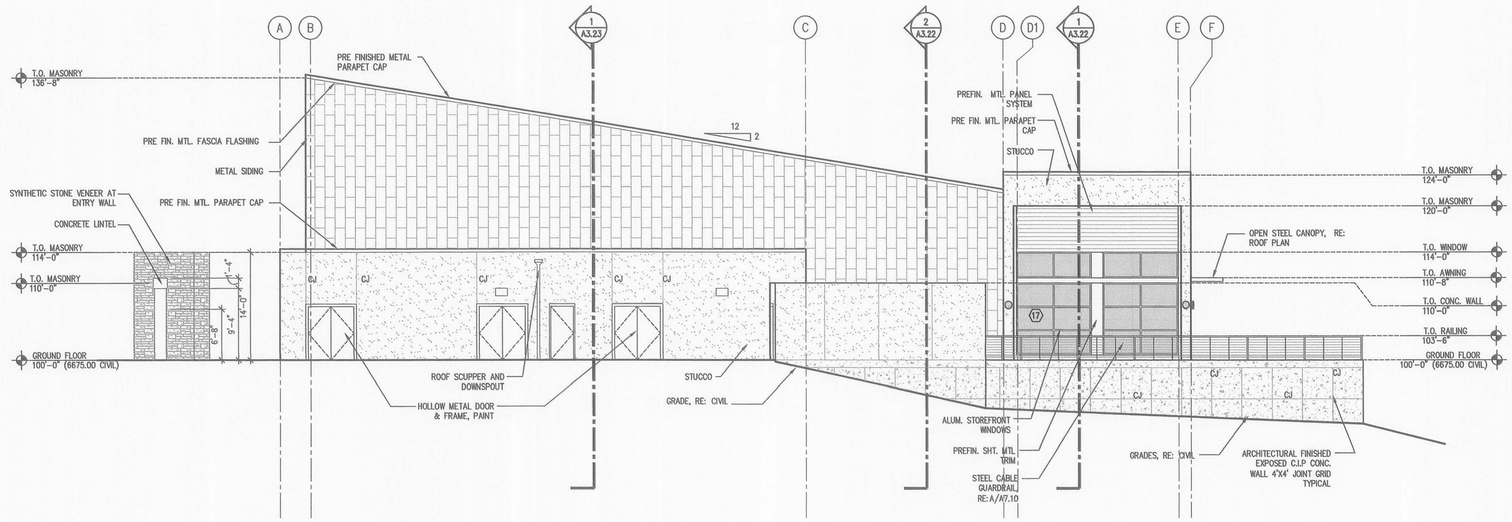



2 PART WEST ELEVATION

SCALE: 1/8" = 1'-0"




1 SOUTH EXTERIOR ELEVATION

SCALE: 1/8" = 1'-0"

Molzen-Corbin & Associates
2701 Miles Road S.E.
Albuquerque, New Mexico 87106
voice (505) 242-5700
fax (505) 242-0673

SINK COMBS DETHLEFS

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475 Lincoln Street, Suite 100
Denver, Colorado 80203
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STATE OF NEW MEXICO
JOHN QUINN PATE
No. 11784
REGISTERED ARCHITECT
6/24/07

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Raton Aquatics Center
Raton, New Mexico

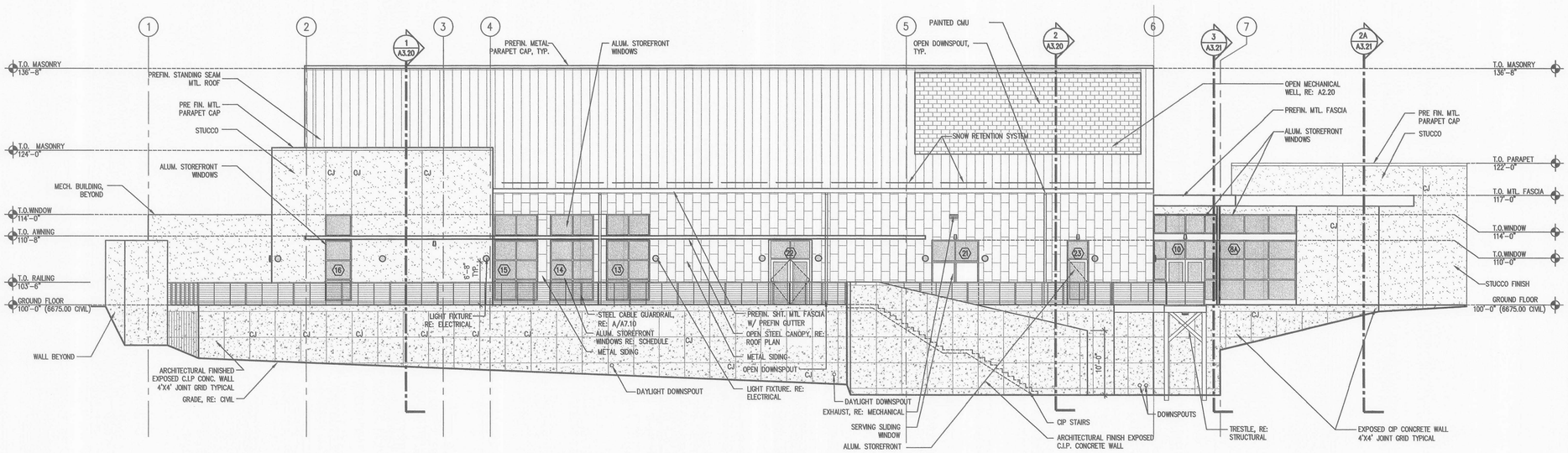
MCA Project No.: RAT 051-12

EXTERIOR ELEVATIONS

PROJECT ARCHITECT: John Quinn Pate, RA

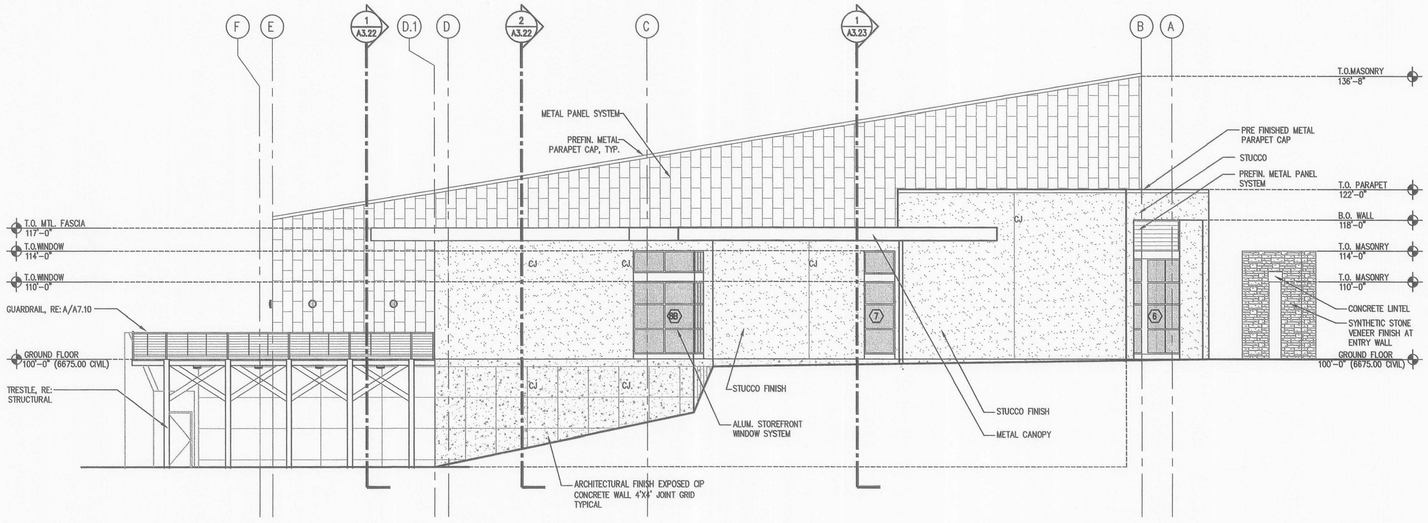
Drawn by: MCA/SCD
Checked by: JQP

A3.10




2 EAST EXTERIOR ELEVATION

SCALE: 1/8" = 1'-0"




1 NORTH EXTERIOR ELEVATION

SCALE: 1/8" = 1'-0"

Molzen-Corbin & Associates
2701 Miles Road S.E.
Albuquerque, New Mexico 87106
voice (505) 242-5700
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STATE OF NEW MEXICO
JOHN QUINN PATE
No. 12184
REGISTERED ARCHITECT
6/29/07

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| Bid Document | 6-24-07 |

Raton Aquatics Center
Raton, New Mexico

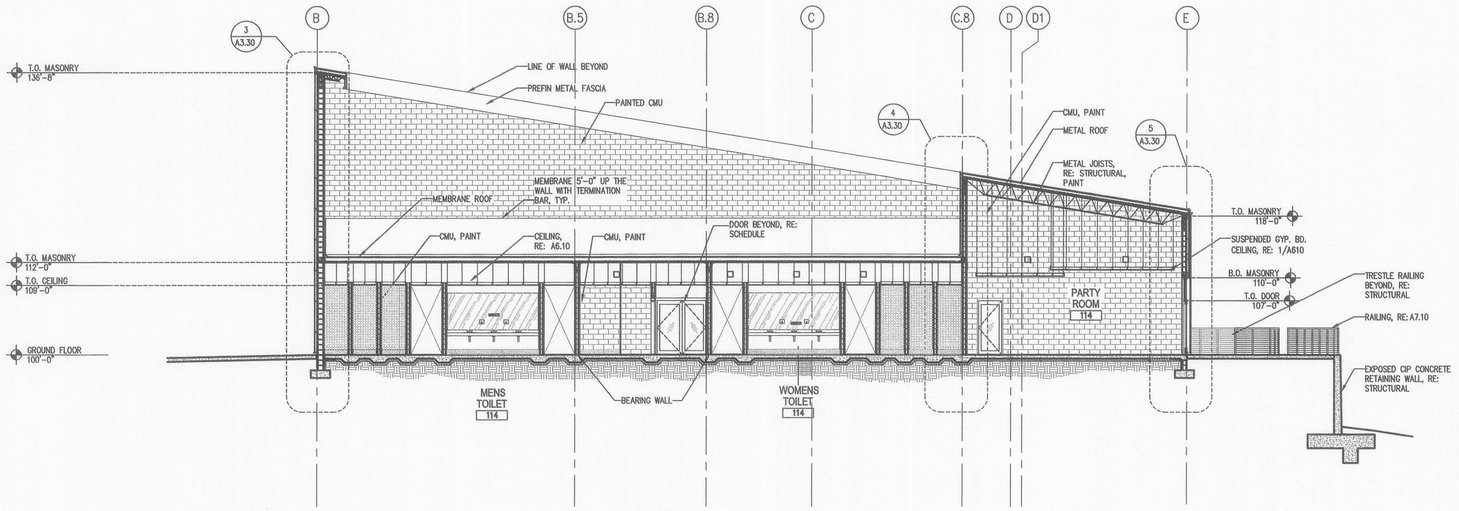
MCA Project No.: RAT 051-12

EXTERIOR ELEVATIONS

PROJECT ARCHITECT: John Quinn Pate, RA

Drawn by: MCA/SCD
Checked by: JQP

A3.11




2 BUILDING SECTION

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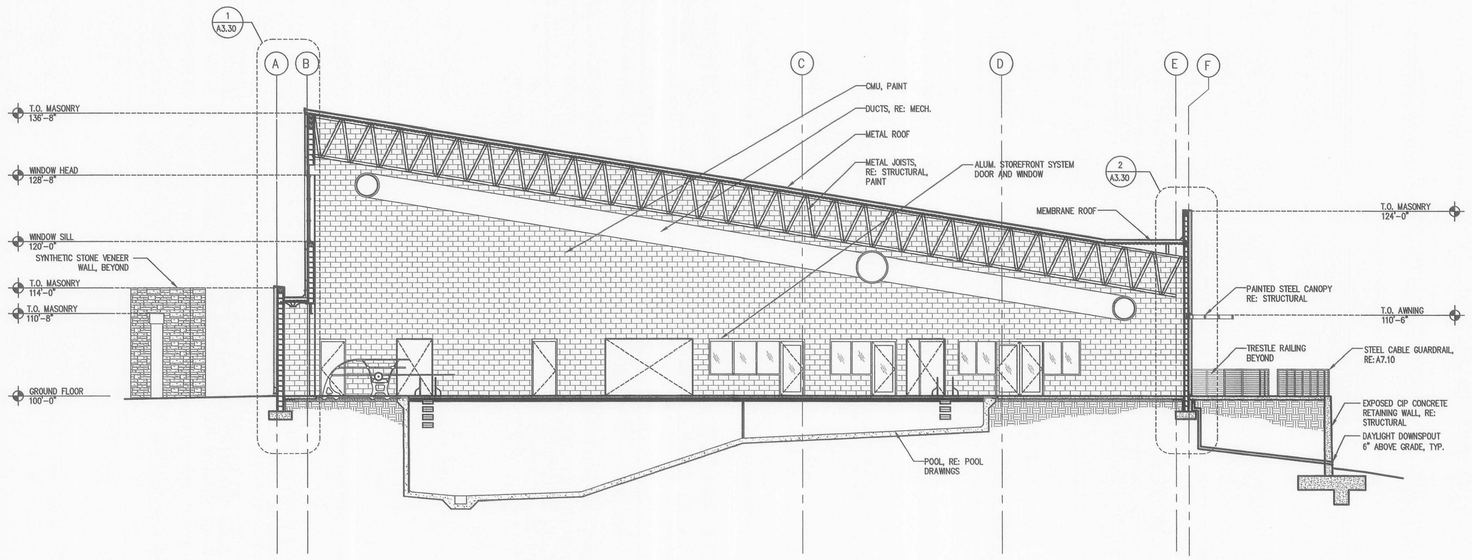


1 BUILDING SECTION

SCALE: 1/8" = 1'-0"

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2701 Miles Road S.E.
Albuquerque, New Mexico 87106
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STATE OF NEW MEXICO
JOHN QUINN PATE
No. 1794
REGISTERED ARCHITECT
6/24/07

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Raton Aquatics Center
Raton, New Mexico

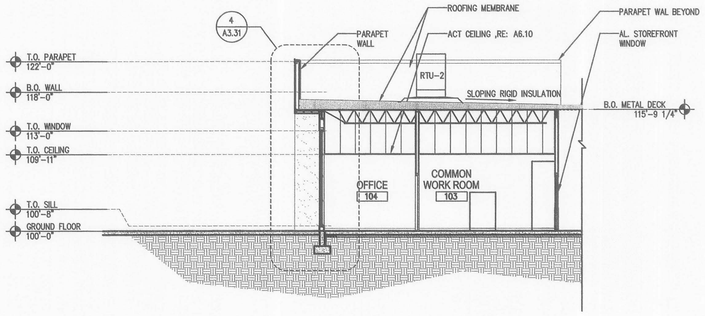
MCA Project No.: RAT 051-12

BUILDING SECTIONS

PROJECT ARCHITECT: John Quinn Pate, RA

Drawn by: MCA/ SCD
Checked by: JQP

A3.20

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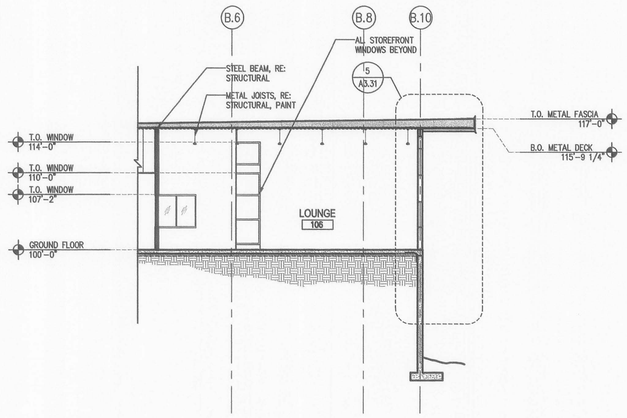


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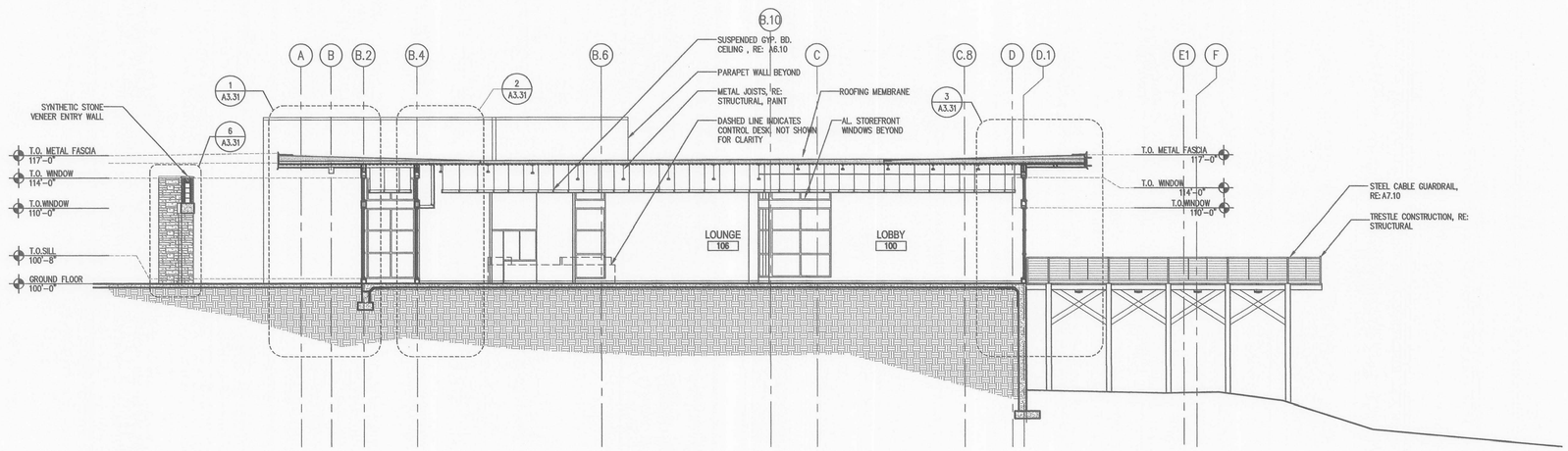


1 BUILDING SECTION

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STATE OF NEW MEXICO
JOHN QUINN PATE
NO. 7784
REGISTERED ARCHITECT
6/24/07

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Raton Aquatics Center
Raton, New Mexico

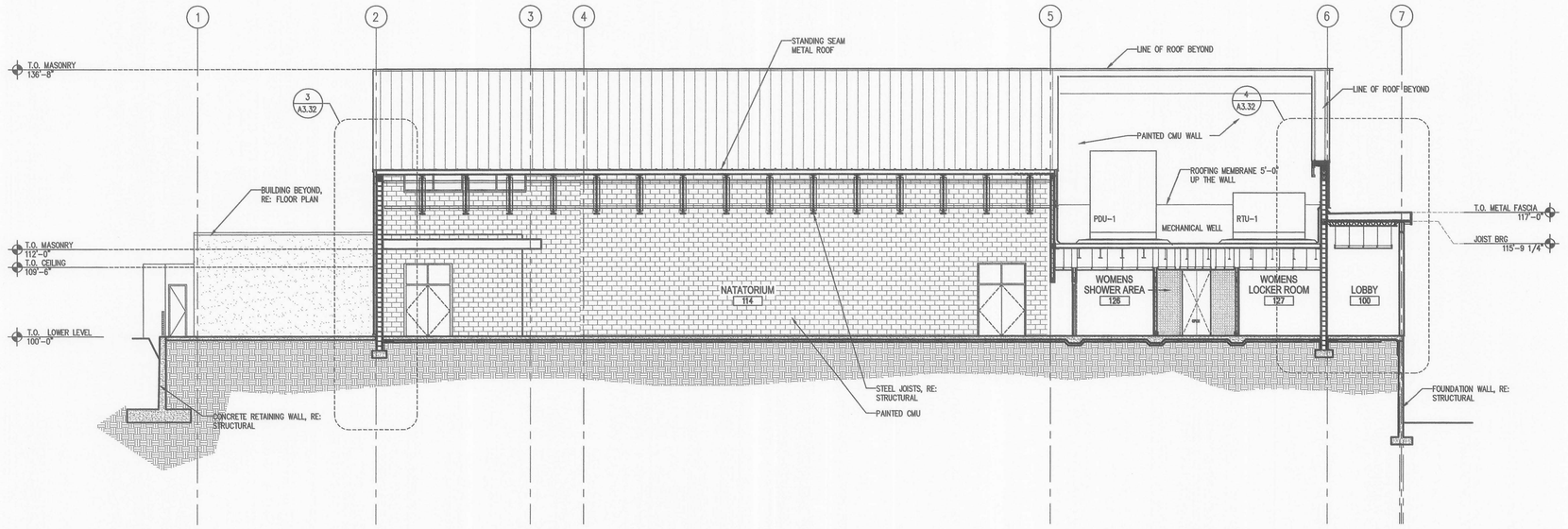
MCA Project No.: RAT 051-12

BUILDING SECTIONS

PROJECT ARCHITECT: John Quinn Pate, RA

Drawn by: MCS/ SCD
Checked by: JQP

A3.21




2 BUILDING SECTION
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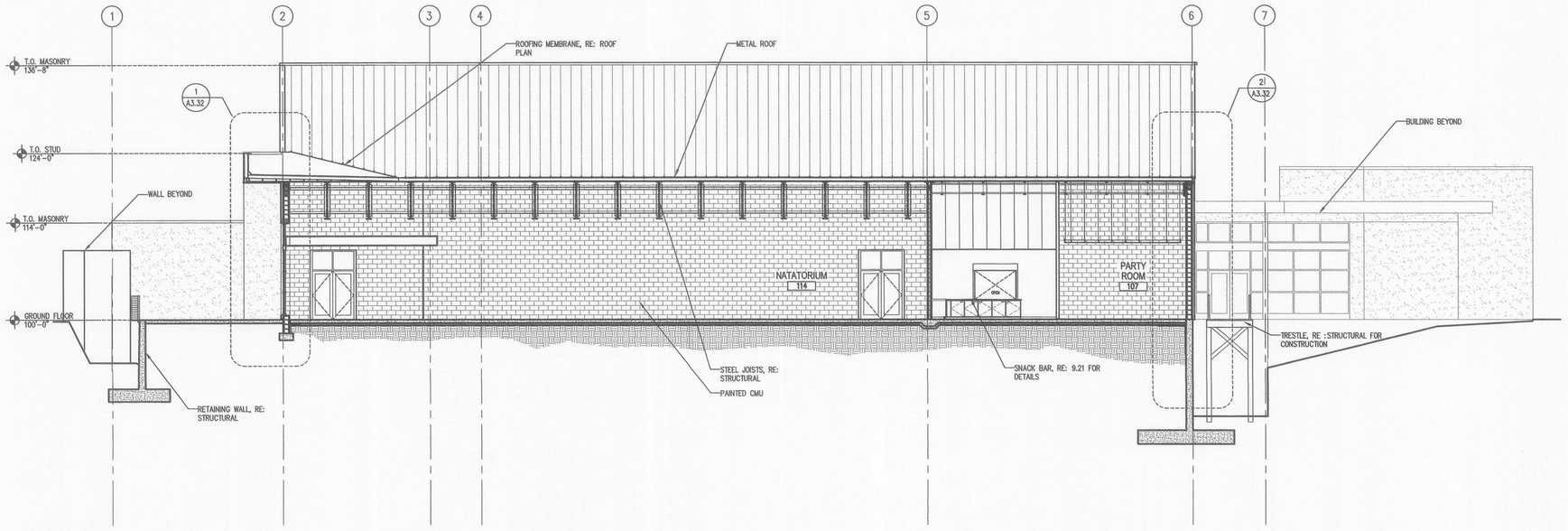


1 BUILDING SECTION
SCALE: 1/8" = 1'-0"

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REGISTERED ARCHITECT
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Raton Aquatics Center
Raton, New Mexico

MCA Project No.: RAT 051-12

BUILDING SECTIONS

PROJECT ARCHITECT: John Quinn Pate, RA

Drawn by: MCA/SCD
Checked by: JQP

A3.22

Molzen-Corbin
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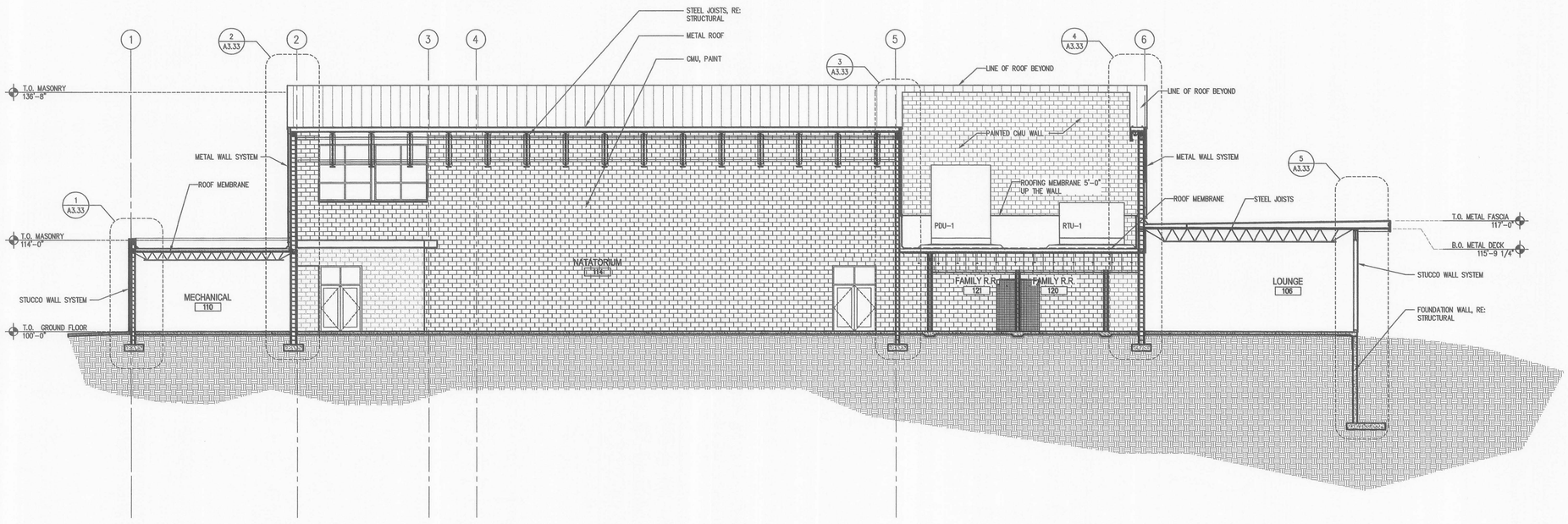


1 BUILDING SECTION
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STATE OF NEW MEXICO
JOHN QUINN PATE
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# Raton Aquatics Center
Raton, New Mexico

MCA Project No.: RAT 051-12

## BUILDING SECTIONS

PROJECT ARCHITECT: John Quinn Pate, RA

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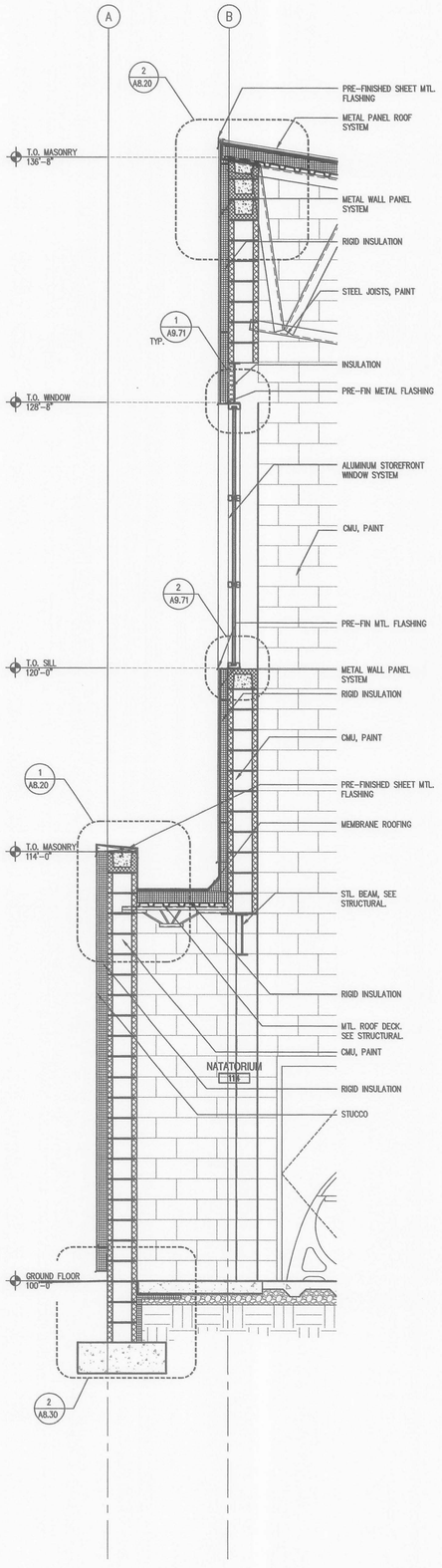
Checked by: JQP

A3.23




1 WALL SECTION
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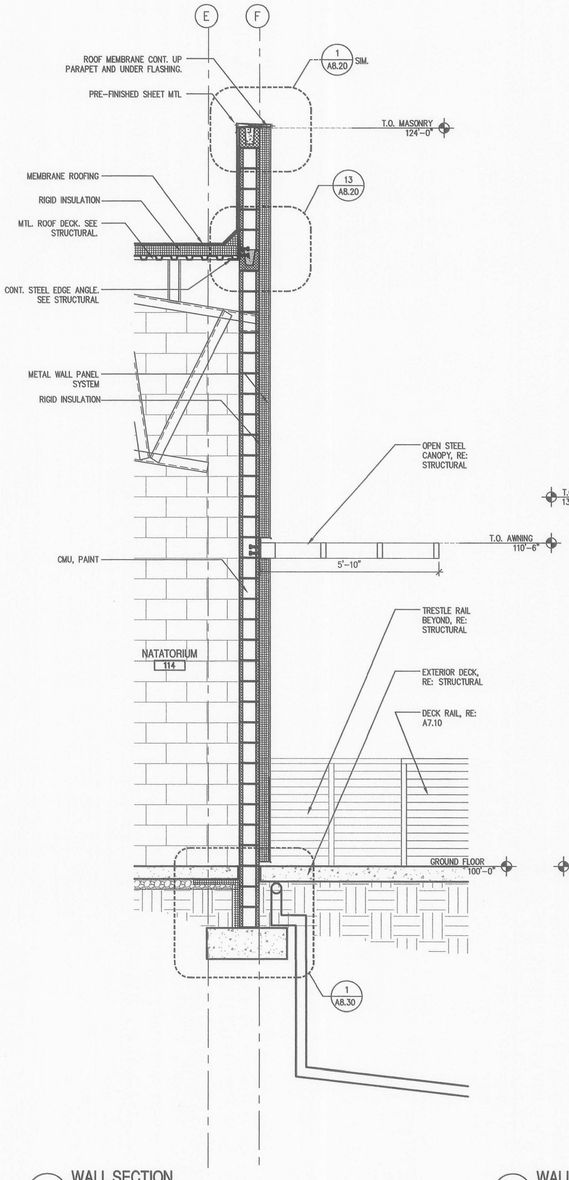


2 WALL SECTION
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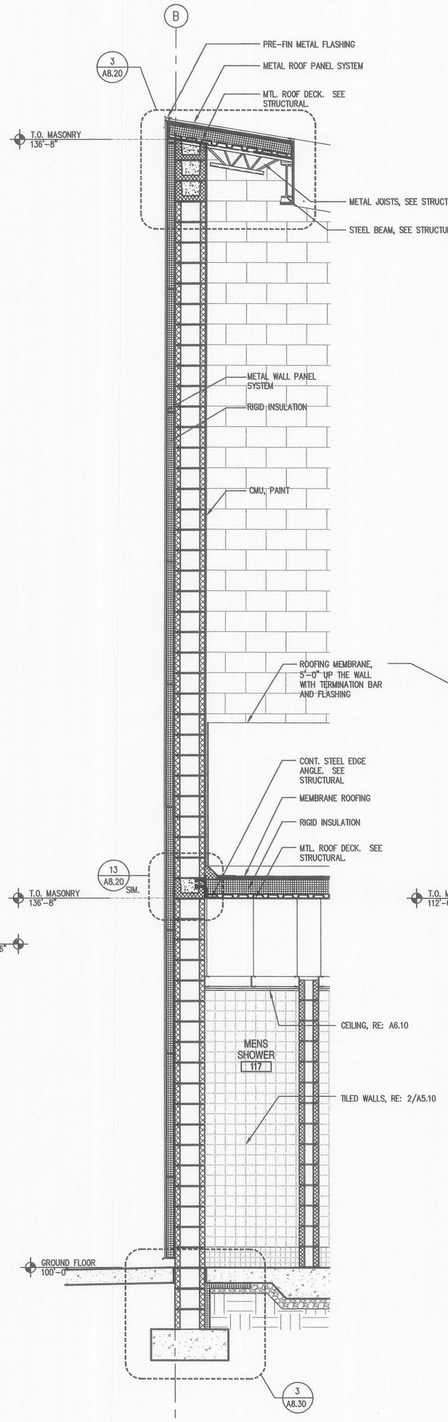


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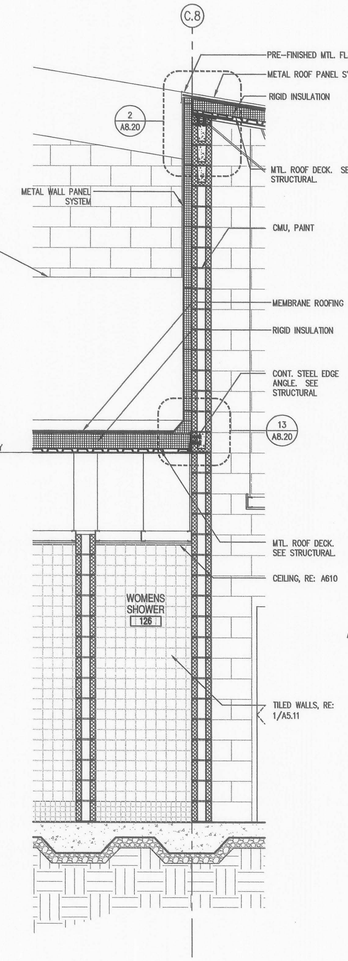


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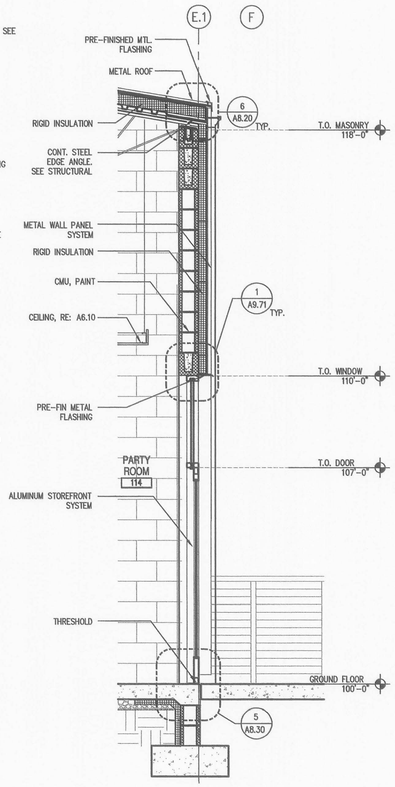


5 WALL SECTION
SCALE: 1/2" = 1'-0"

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JOHN QUINN PATE
NO. 11784
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6/24/07

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Raton Aquatics Center
Raton, New Mexico

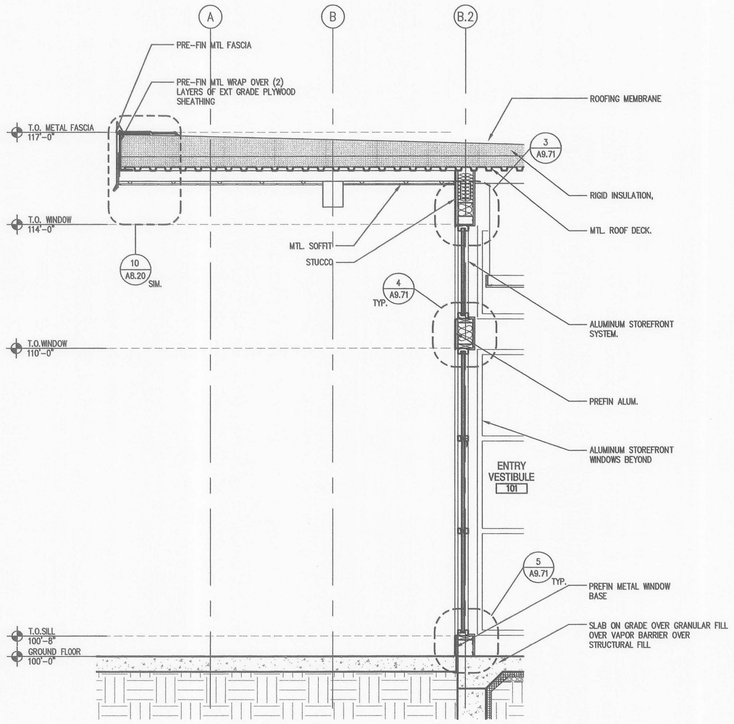
MCA Project No.: RAT 051-12

WALL SECTIONS

PROJECT ARCHITECT: John Quinn Pate, RA

Drawn by: MCA/ SCD
Checked by: JQP

A3.30




1 WALL SECTION
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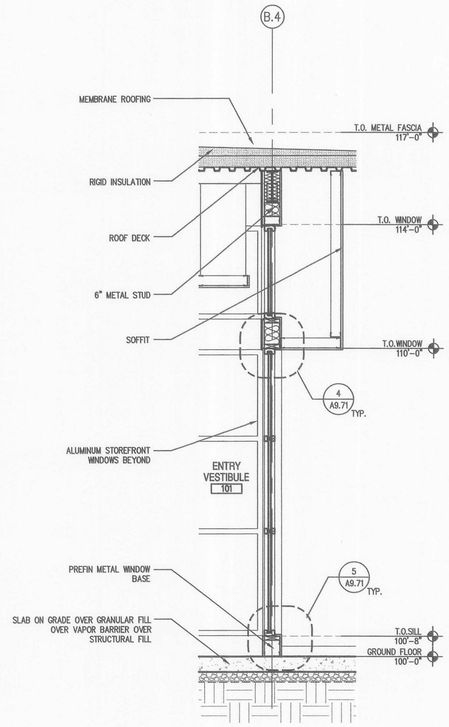


2 WALL SECTION
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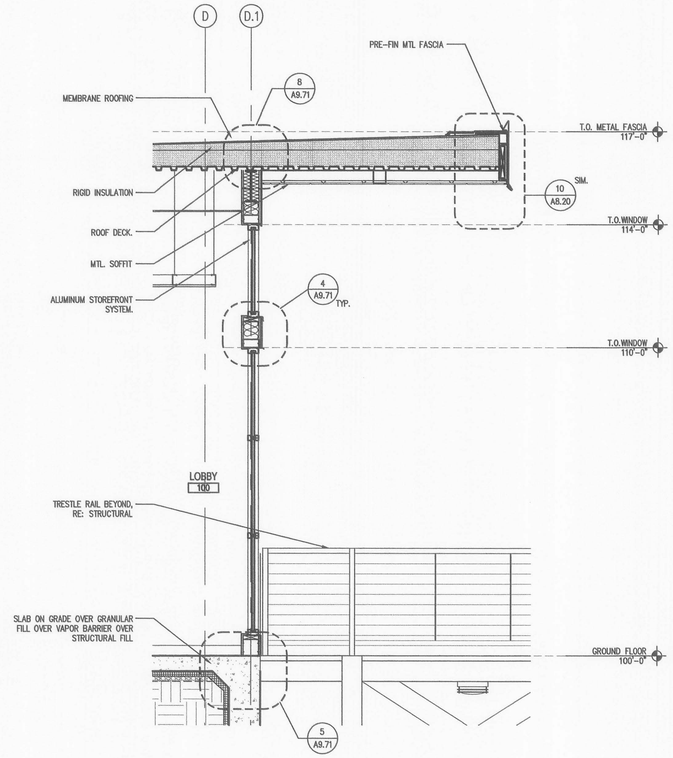


3 WALL SECTION
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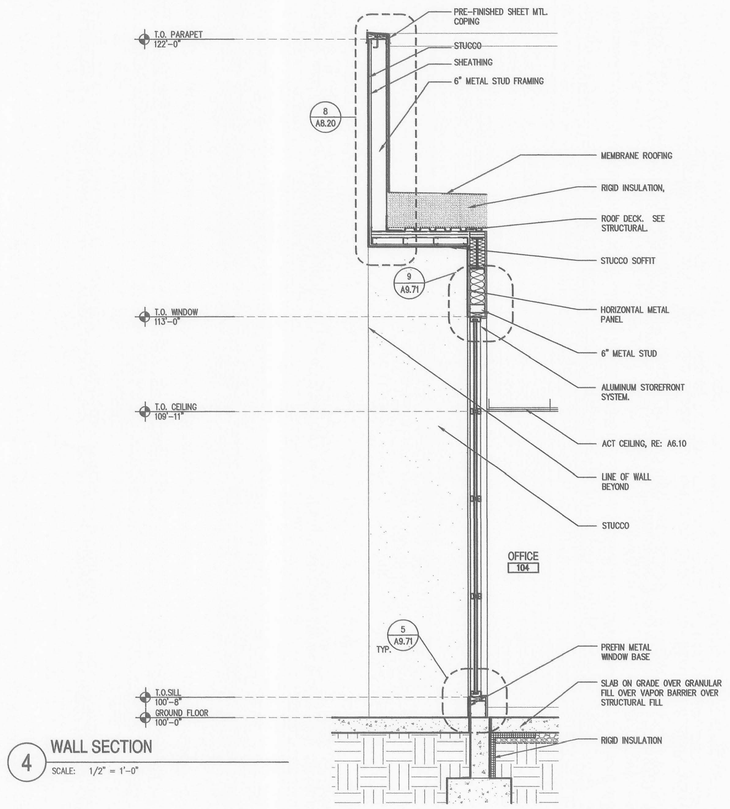
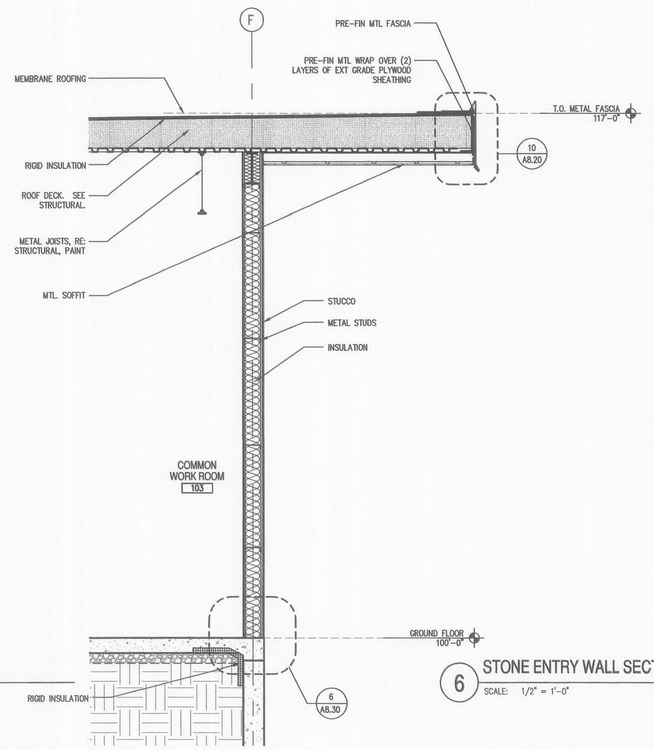



4 WALL SECTION
SCALE: 1/2" = 1'-0"

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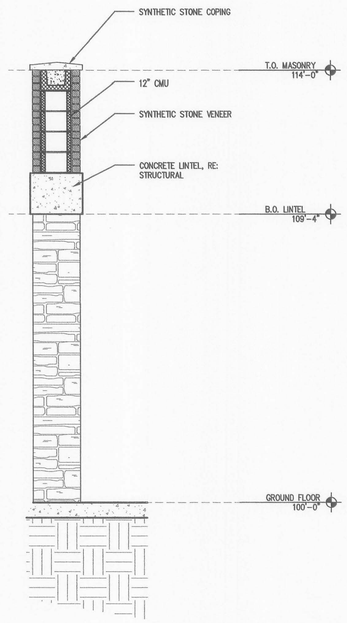


6 STONE ENTRY WALL SECTION
SCALE: 1/2" = 1'-0"

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STATE OF NEW MEXICO
JOHN QUINN PATE
NO. 17194
REGISTERED ARCHITECT
6/24/07

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**Raton Aquatics Center**
Raton, New Mexico

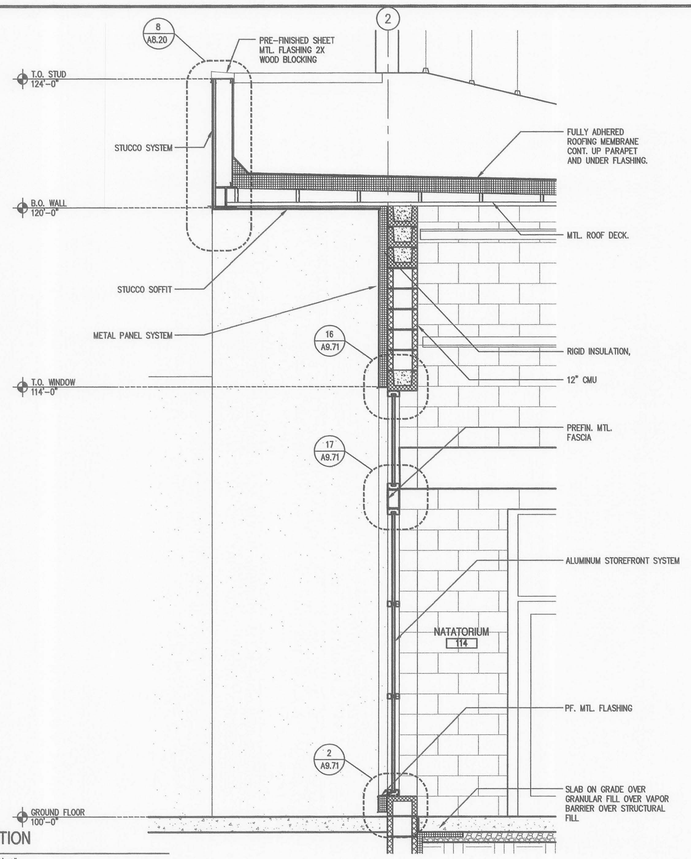
MCA Project No.: RAT 051-12

**WALL SECTIONS**

PROJECT ARCHITECT: John Quinn Pate, RA

Drawn by: MCA/ SCD
Checked by: JQP

**A3.31**




1 WALL SECTION
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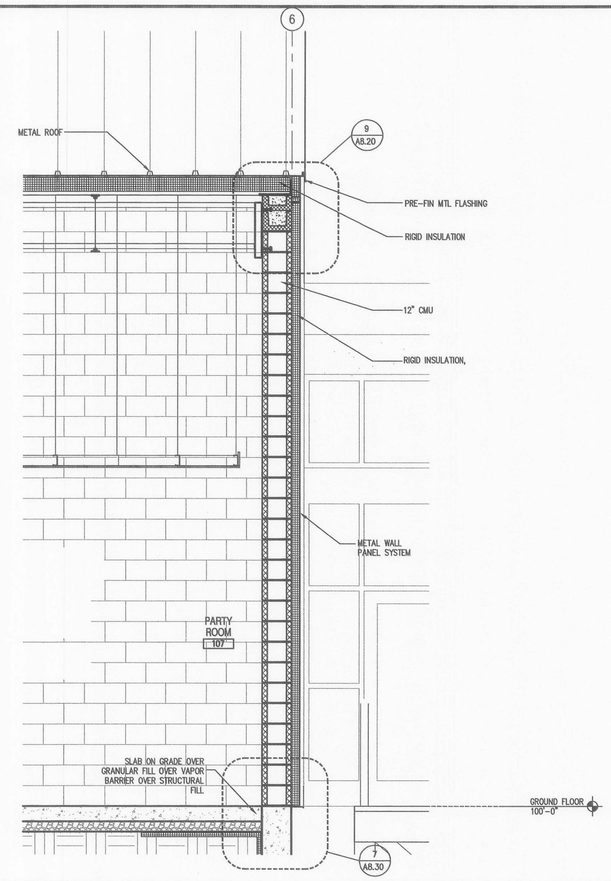


2 WALL SECTION
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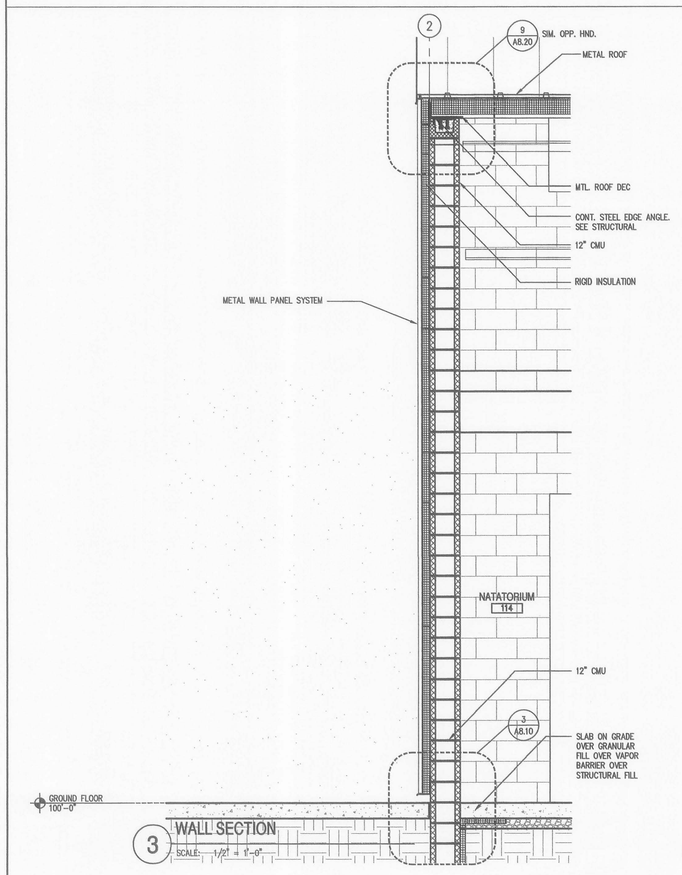


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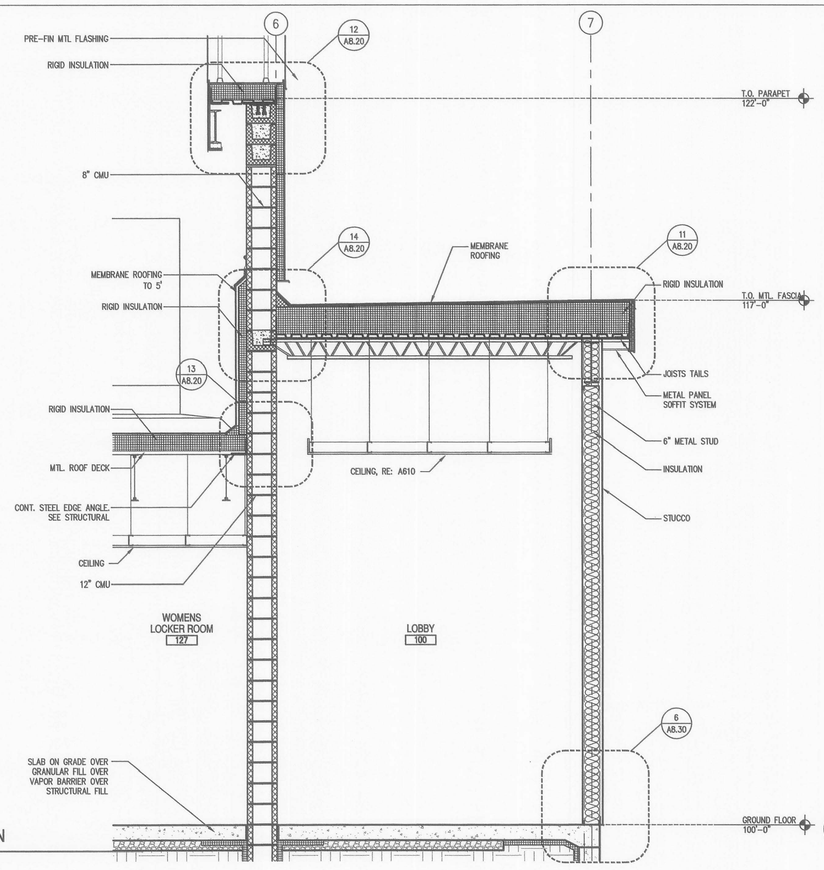


4 WALL SECTION
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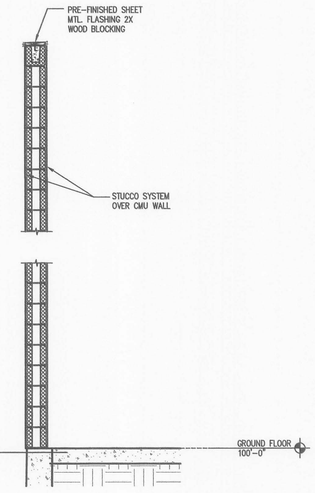


5 GARDEN WALL DETAIL
SCALE: 1/2" = 1'-0"

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Raton Aquatics Center
Raton, New Mexico

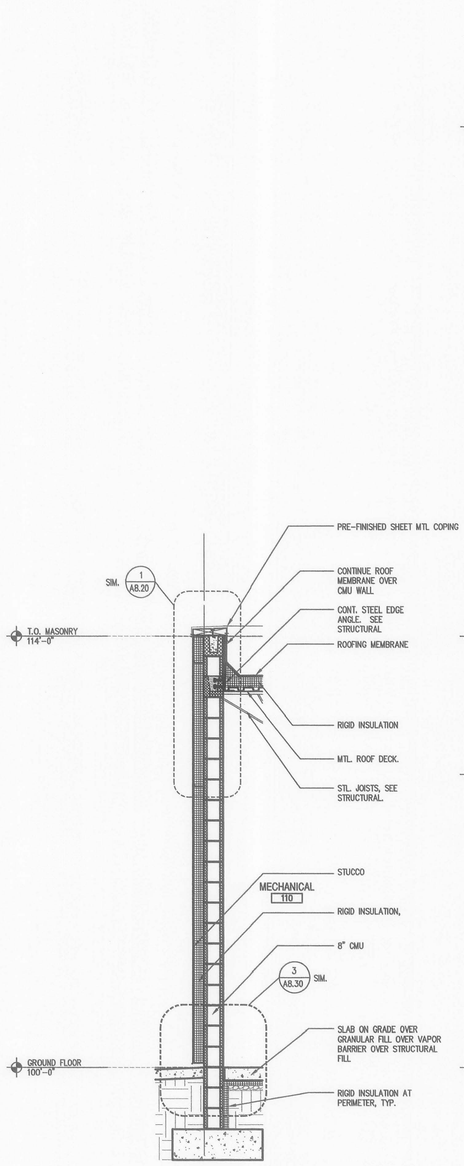
MCA Project No.: RAT 051-12

WALL
SECTIONS

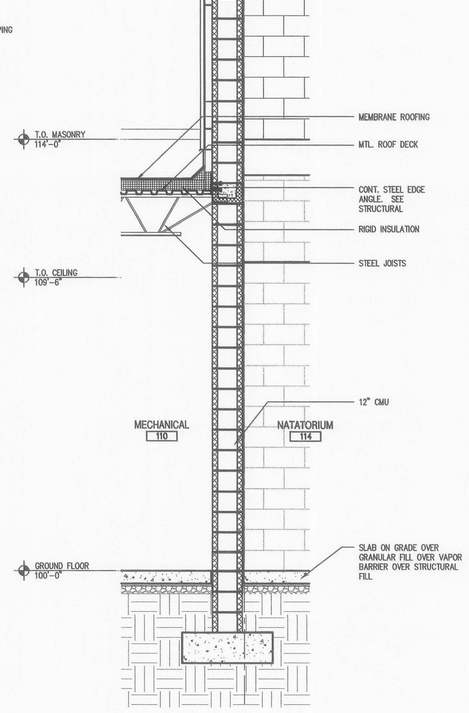
PROJECT ARCHITECT: John Quinn Pate, RA

Drawn by: MCA/ SCD
Checked by: JQP

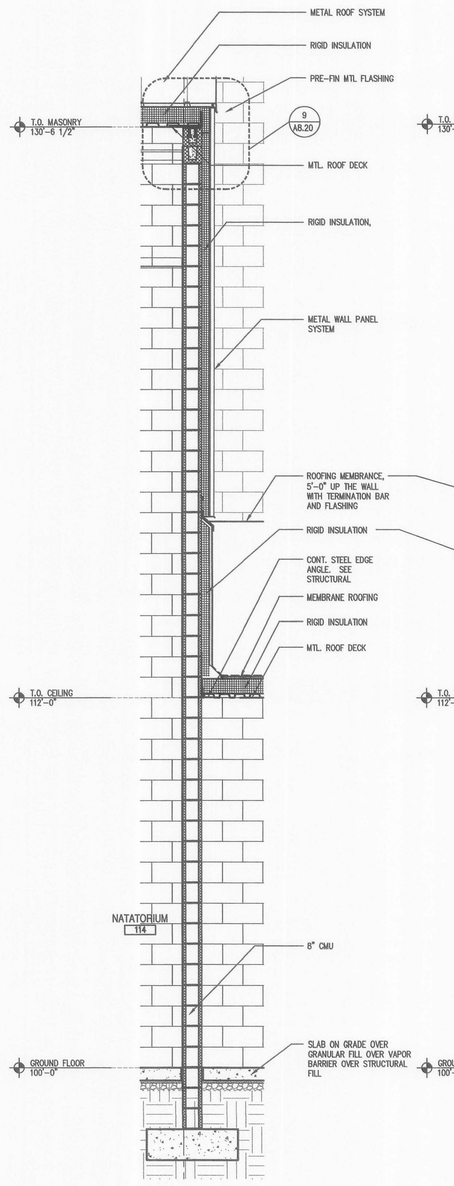
A3.32



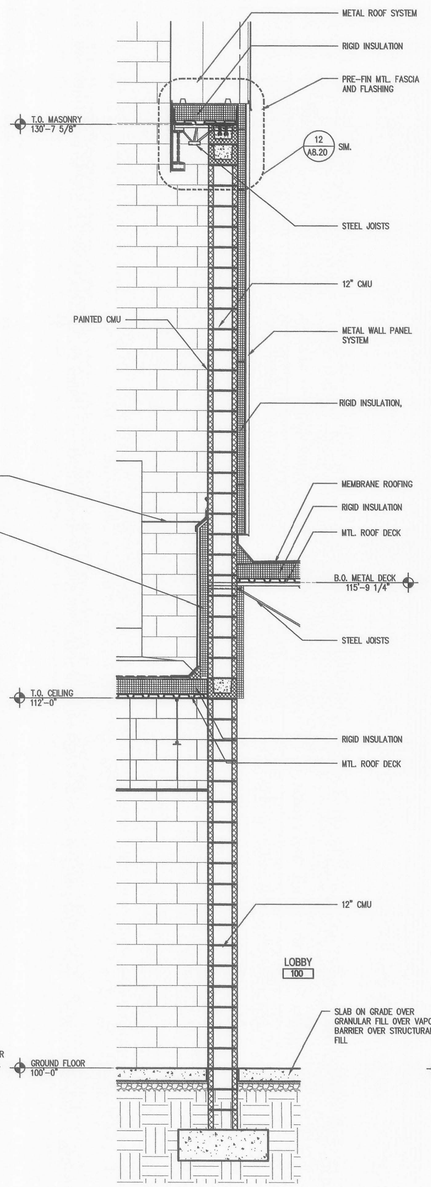

1 WALL SECTION
SCALE: 1/2" = 1'-0"



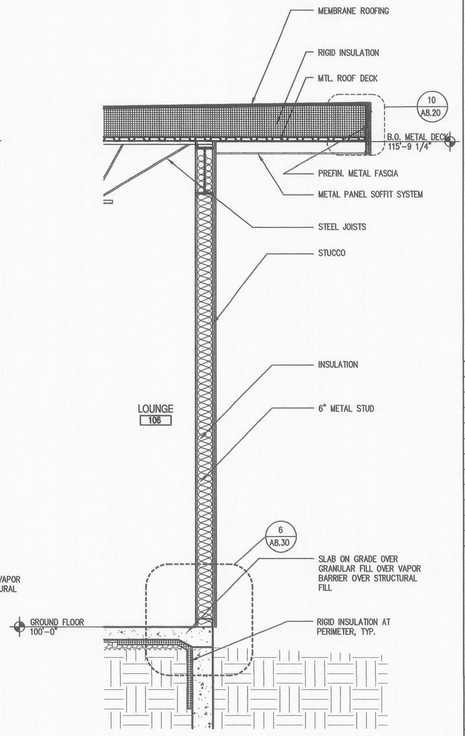

2 WALL SECTION
SCALE: 1/2" = 1'-0"




3 WALL SECTION
SCALE: 1/2" = 1'-0"




4 WALL SECTION
SCALE: 1/2" = 1'-0"




5 WALL SECTION
SCALE: 1/2" = 1'-0"

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2701 Miles Road S.E.
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NOTICE OF EXTENDED PAYMENT PROVISION: THIS CONTRACT ALLOWS THE OWNER TO MAKE PAYMENT WITHIN 45 DAYS AFTER SUBMISSION OF AN UNDISPUTED REQUEST FOR PAYMENT

STATE OF NEW MEXICO
JOHN QUINN PATE
NO. 1284
REGISTERED ARCHITECT
6/24/07

| Issues/Revisions: | Date: |
|---|---|
| Bid Document | 6-24-07 |

Raton Aquatics Center
Raton, New Mexico

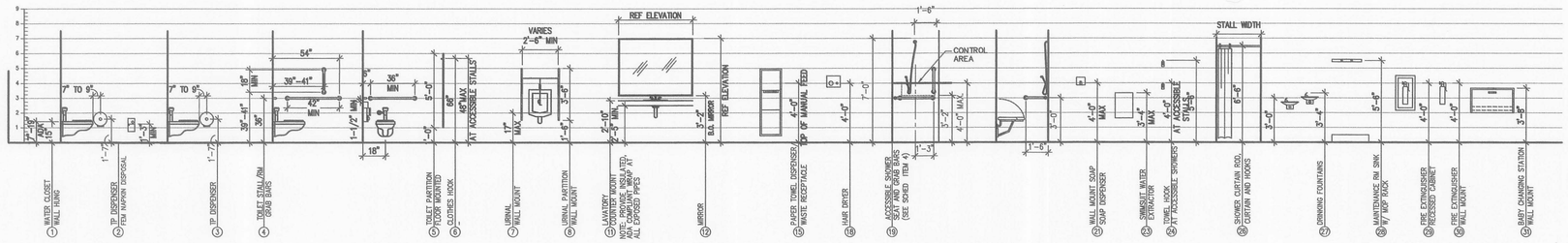
MCA Project No.: RAT 051-12

WALL SECTIONS

PROJECT ARCHITECT: John Quinn Pate, RA

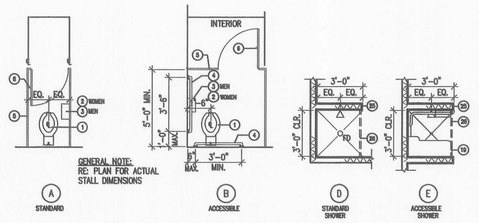
Drawn by: MCA/SCD
Checked by: JQP

A3.33




1 FIXTURE ACCESSORY MOUNTING SCHEDULE

SCALE: 1/4" = 1'-0"

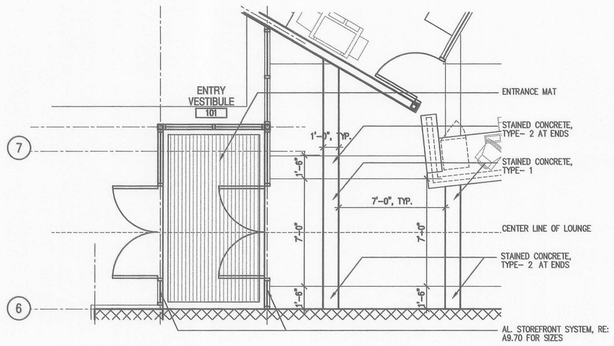



GENERAL NOTE:
RE: PLAN FOR ACTUAL STALL DIMENSIONS

NOTE: PROVIDE REFERENCED ACCESSORIES IN EACH STALL UNLESS OTHERWISE NOTED.

2 STALL LAYOUTS

SCALE: 1/4" = 1'-0"




4 ENTRY PLAN

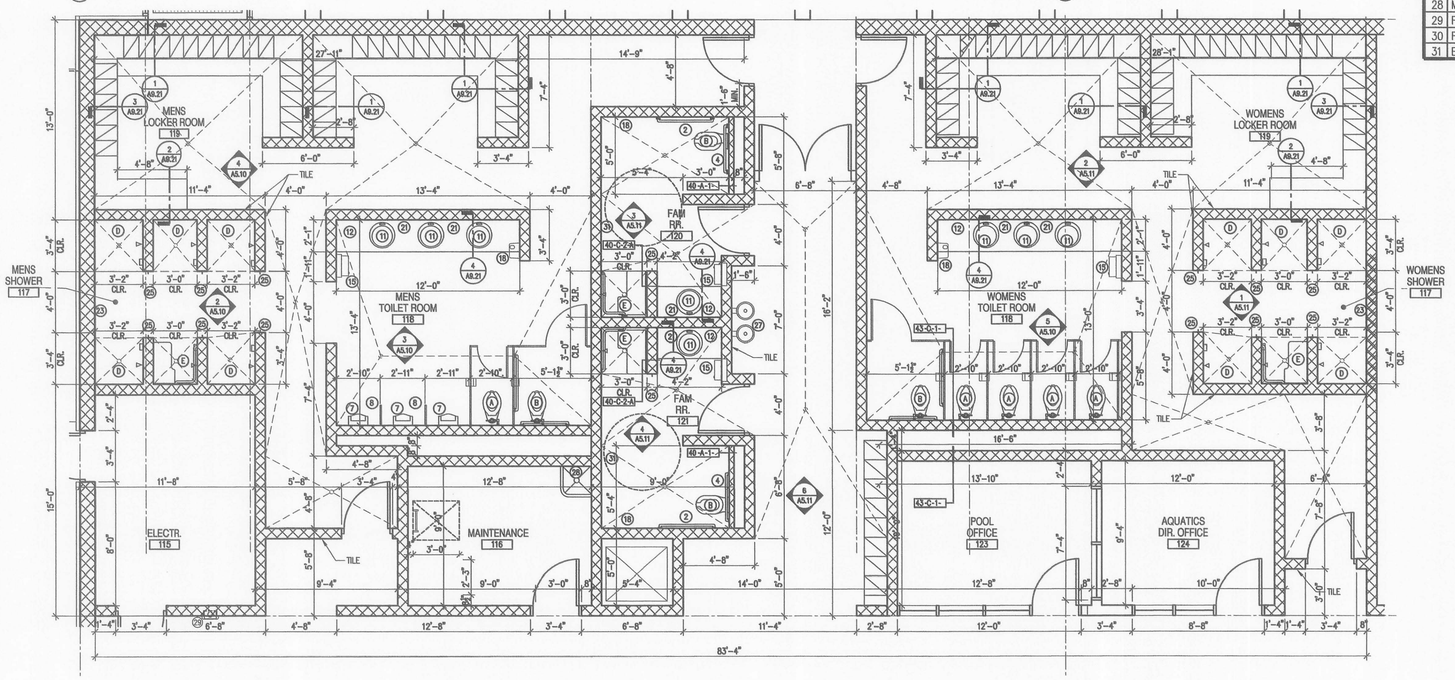
SCALE: 1/4" = 1'-0"

## GENERAL NOTES:

1. ALL WALL TYPES IN THESE AREAS TO BE 40-C-1 U.N.O.
2. FOR FD LOCATIONS, SEE PLUMBING DRAWINGS
3. SLOPE FLOORS TO DRAIN @ SHOWERS AND NATATORIUM 1/4" PER 1'-0", 1/8" PER 1'-0" @ ALL OTHER WET AREAS

## WASHROOM ACCESSORY SCHEDULE

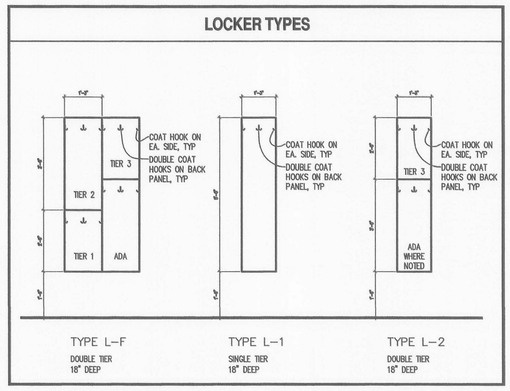
| | PRODUCT DESCRIPTION | MNF | MODEL | REMARKS |
|---|---|---|---|---|
| 1 | WATER CLOSET | | | SEE PLUMBING DRAWINGS |
| 2 | TOILET TISSUE DISPENSER AND SANITARY NAPKIN DISPOSAL | BOBRICK | B-2888 | SURFACE MOUNT |
| | | BOBRICK | B-254 | |
| 3 | TOILET TISSUE DISPENSER | BOBRICK | B-2888 | SURFACE MOUNT |
| 4 | GRAB BARS, 3 PER ACCESSIBLE STALL AND TOILET ROOM, 2 PER ACCESSIBLE SHOWER | BOBRICK | SERIES 5806 | LENGTHS AND CONFIGURATION AS SHOWN |
| 5 | TOILET PARTITION | REFER TO SPECIFICATIONS | | FLOOR MOUNTED |
| 6 | CLOTHES HOOK | | | SUPPLY WITH PARTITIONS |
| 7 | URINAL | | | SEE PLUMBING DRAWINGS |
| 8 | URINAL PARTITION | REFER TO SPECIFICATIONS | | |
| 9 | NOT USED | | | |
| 10 | NOT USED | | | |
| 11 | LAVATORY- COUNTER MOUNT | | | SEE CASEWORK AND PLUMBING DRAWINGS |
| 12 | MIRROR | BOBRICK | B-290 SERIES | LENGTHS TO FIT AREAS ABOVE LAVATORIES |
| 13 | NOT USED | | | |
| 14 | NOT USED | | | |
| 15 | ROLL-PAPER-TOWEL DISPENSER/WASTE RECEPTACLE | BOBRICK | B-39619 | SURFACE MOUNT |
| 16 | NOT USED | | | |
| 17 | NOT USED | | | |
| 18 | ELECTRIC HAIR DRYER | BOBRICK | B-731 | SEE ELECTRICAL DRAWINGS FOR POWER INFORMATION |
| 19 | FOLD DOWN SHOWER SEAT AND GRAB BARS FOR TRANSFER SHOWER | BOBRICK | B-517/518 | GRAB BAR CONFIGURATIONS AS SHOWN. SEE PLUMBING DRAWINGS FOR ADDITIONAL INFORMATION |
| | | BOBRICK | SERIES 5806 | |
| 20 | NOT USED | | | |
| 21 | SOAP DISPENSER | BOBRICK | B-2112 | SURFACE MOUNT |
| 22 | NOT USED | | | |
| 23 | SWIMSUIT WATER EXTRACTOR | SUITMATE | | SEE PLUMBING AND ELECTRICAL DRAWINGS |
| 24 | NOT USED | | | |
| 25 | DOUBLE ROBE HOOK | BOBRICK | B-672 | |
| 26 | SHOWER CURTAIN ROD, HOOKS AND CURTAIN | BOBRICK | B-6107 | |
| | | BOBRICK | B-204-1 | |
| | | BOBRICK | B-204-2 | |
| 27 | DRINKING FOUNTAINS | | | SEE PLUMBING DRAWINGS |
| 28 | MOP SINK AND MOP RACK | BOBRICK | B-224-30 | SEE PLUMBING DRAWINGS |
| 29 | FIRE EXTINGUISHER IN FE CABINET | REFER TO SPECIFICATIONS | | SEMI-RECESSED, LOCATIONS SHOWN ON G-0.03 |
| 30 | FIRE EXTINGUISHER | REFER TO SPECIFICATIONS | | SURFACE MOUNT, LOCATIONS SHOWN ON G-0.03 |
| 31 | BABY CHANGING TABLE | BOBRICK | KB-110 SSWM | SURFACE MOUNT |




5 ENLARGED LOCKER AND REST ROOM PLAN

SCALE: 1/4" = 1'-0"

## LOCKER TYPES

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STATE OF NEW MEXICO
JOHN QUINN PATE NO. 1784
REGISTERED ARCHITECT
6/24/07

| Issues/Revisions: | Date: |
|---|---|
| Bid Document | 6-24-07 |

Raton Aquatics Center
Raton, New Mexico

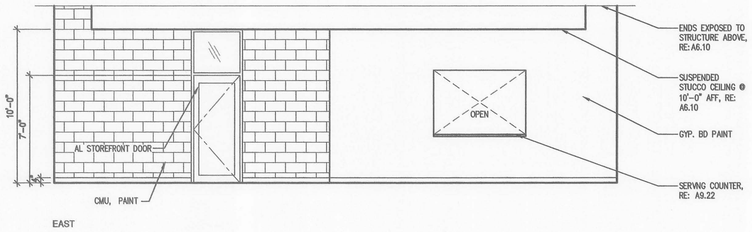
MCA Project No.: RAT 051-12

ENLARGED FLOOR PLANS

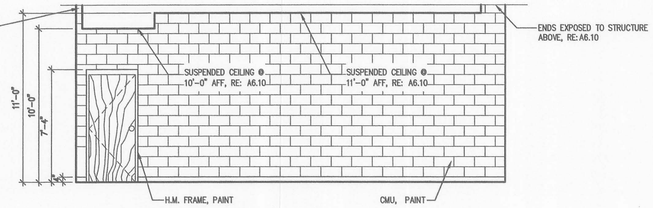
PROJECT ARCHITECT: John Quinn Pate, RA

Drawn by: MCA/SCD
Checked by: JQP

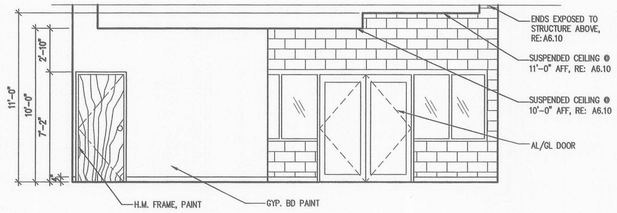
A4.10



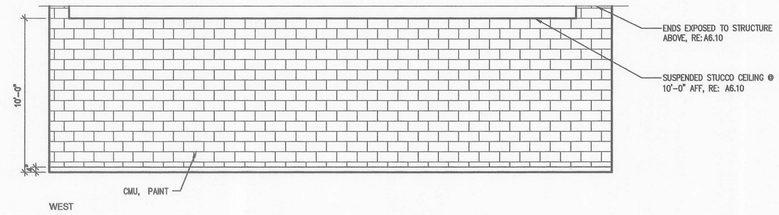

EAST




NORTH



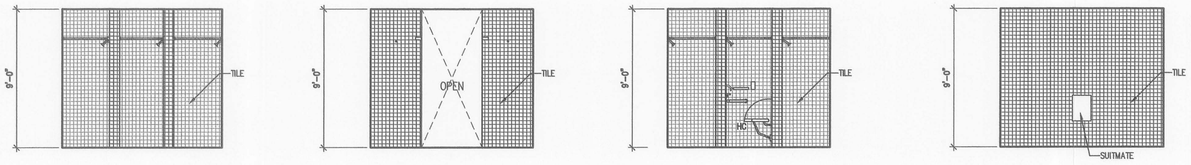

SOUTH




WEST

## 1 PARTY ROOM #107

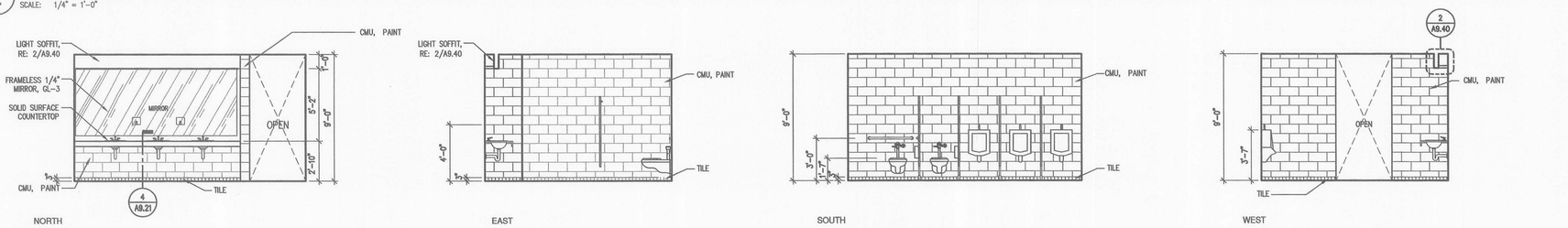
SCALE: 1/4" = 1'-0"




NORTH EAST SOUTH WEST

## 2 MENS SHOWER #117

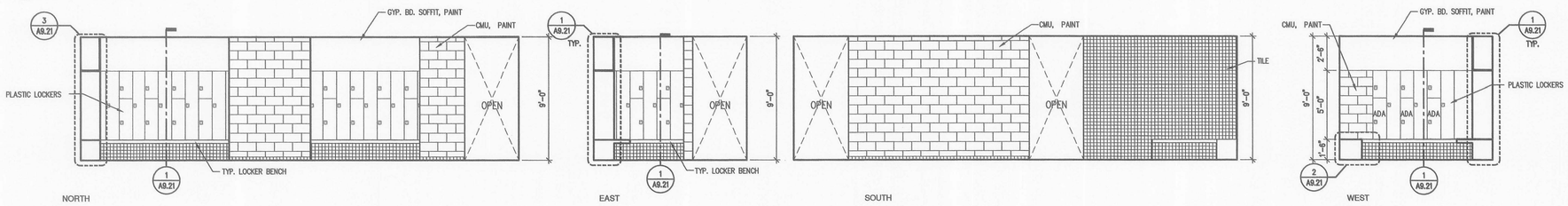
SCALE: 1/4" = 1'-0"




NORTH EAST SOUTH WEST

## 3 MENS TOILET ROOM #118

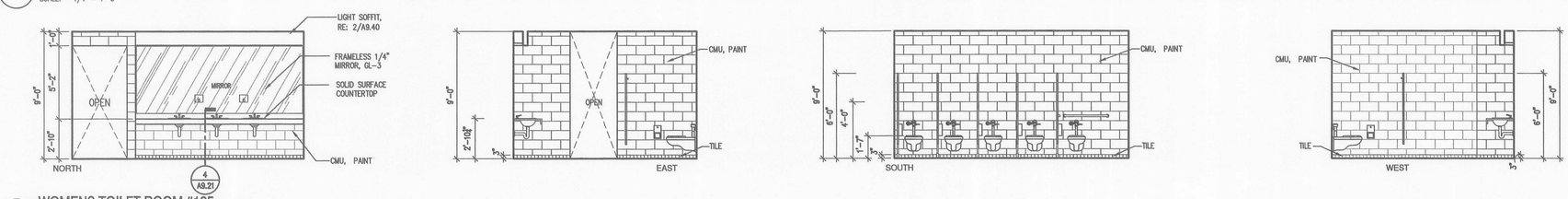
SCALE: 1/4" = 1'-0"




NORTH EAST SOUTH WEST

## 4 MENS LOCKER ROOM #119

SCALE: 1/4" = 1'-0"




NORTH EAST SOUTH WEST

## 5 WOMENS TOILET ROOM #125

SCALE: 1/4" = 1'-0"

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STATE OF NEW MEXICO JOHN QUINN PATE NO. 1784 REGISTERED ARCHITECT 6/24/07

| Issues/Revisions: | Date: |
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Raton Aquatics Center
Raton, New Mexico

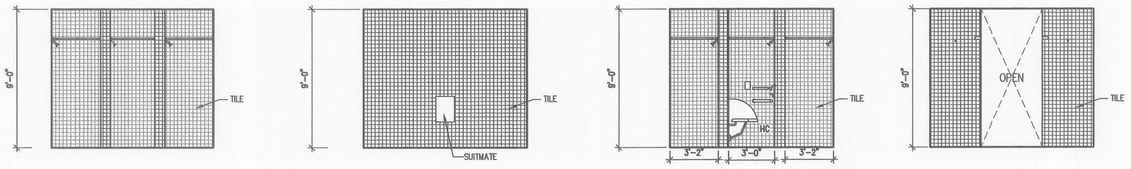
MCA Project No.: RAT 051-12

INTERIOR ELEVATIONS

PROJECT ARCHITECT: John Quinn Pate, RA

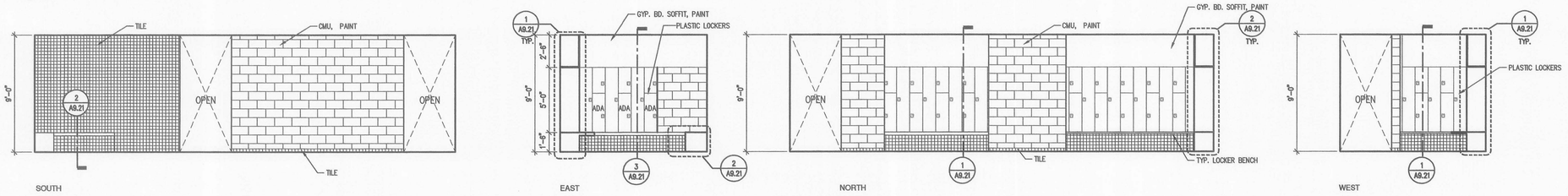
Drawn by: MCA/SCD
Checked by: JQP

A5.10



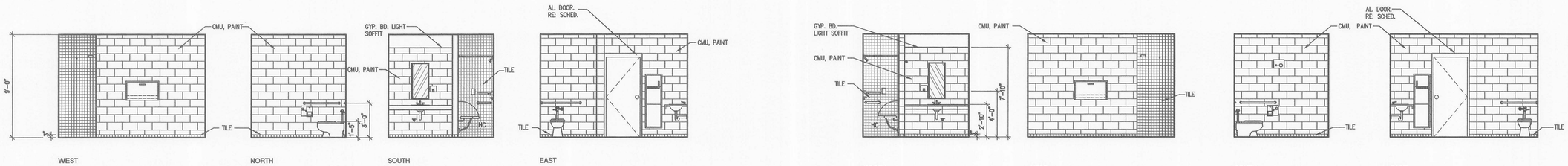

## 1 WOMENS SHOWER # 126

SCALE: 1/4" = 1'-0"



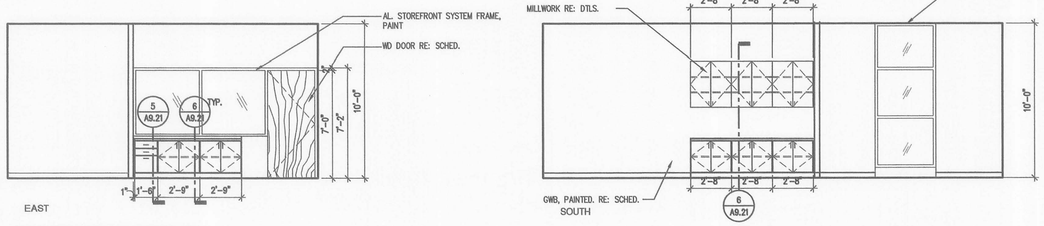

## 2 WOMENS LOCKER ROOM #127

SCALE: 1/4" = 1'-0"



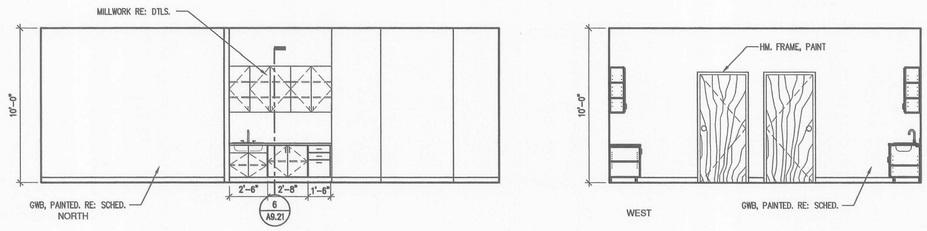

## 3 FAMILY R.R. #120

SCALE: 1/4" = 1'-0"



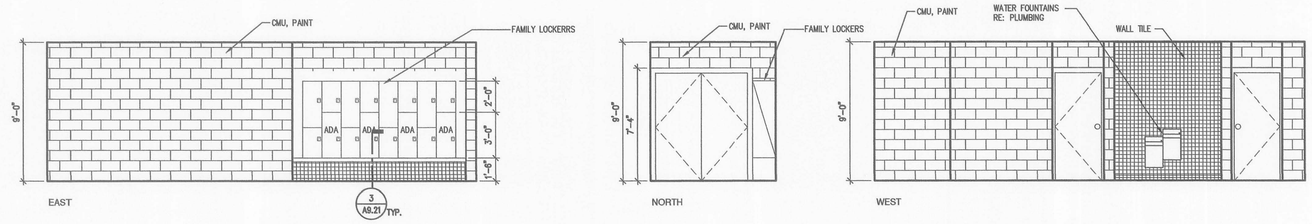

## 4 FAMILY R.R. #121

SCALE: 1/4" = 1'-0"




## 5 COMMON WORK ROOM # 103

SCALE: 1/4" = 1'-0"




## 6 POOL HALLWAY # 122

SCALE: 1/4" = 1'-0"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Raton Aquatics Center
Raton, New Mexico

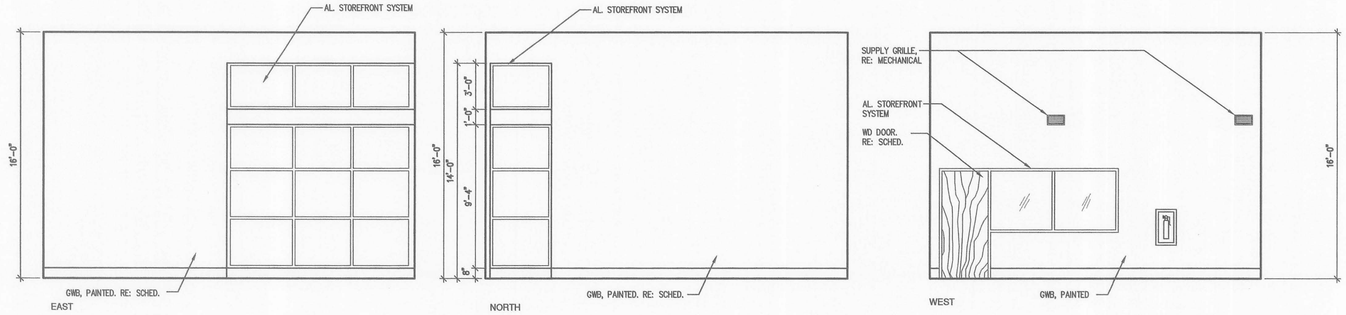
MCA Project No.: RAT 051-12

INTERIOR ELEVATIONS

PROJECT ARCHITECT: John Quinn Pate, RA

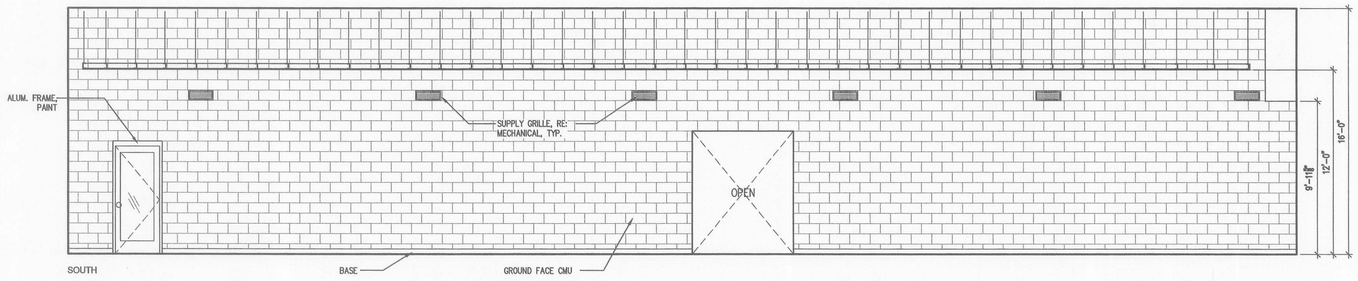
Drawn by: MCA/SCD
Checked by: JQP

A5.11




1 LOUNGE #106

SCALE: 1/4" = 1'-0"




2 LOBBY #100

SCALE: 1/4" = 1'-0"

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NOTICE OF EXTENDED PAYMENT PROVISIONS: THIS CONTRACT ALLOWS THE OWNER TO MAKE PAYMENT WITHIN 60 DAYS AFTER SUBMISSION OF AN UNDISPUTED REQUEST FOR PAYMENT

STATE OF NEW MEXICO
JOHN QUINN PATE
NO. 1764
REGISTERED ARCHITECT
6/24/07

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Raton Aquatics Center
Raton, New Mexico

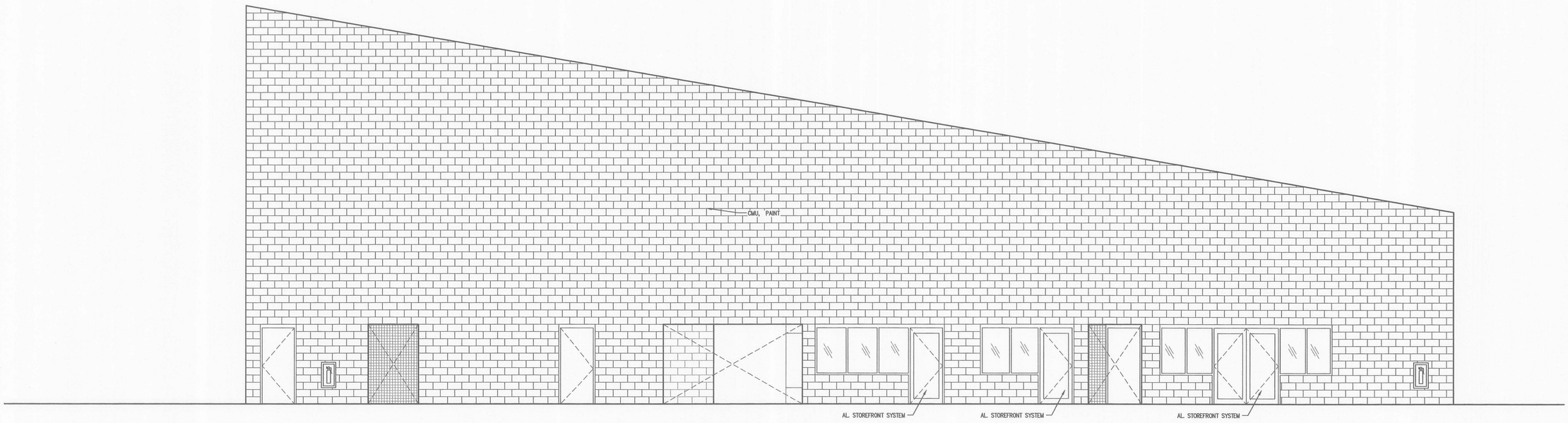
MCA Project No.: RAT 051-12

INTERIOR ELEVATIONS

PROJECT ARCHITECT: John Quinn Pate, RA

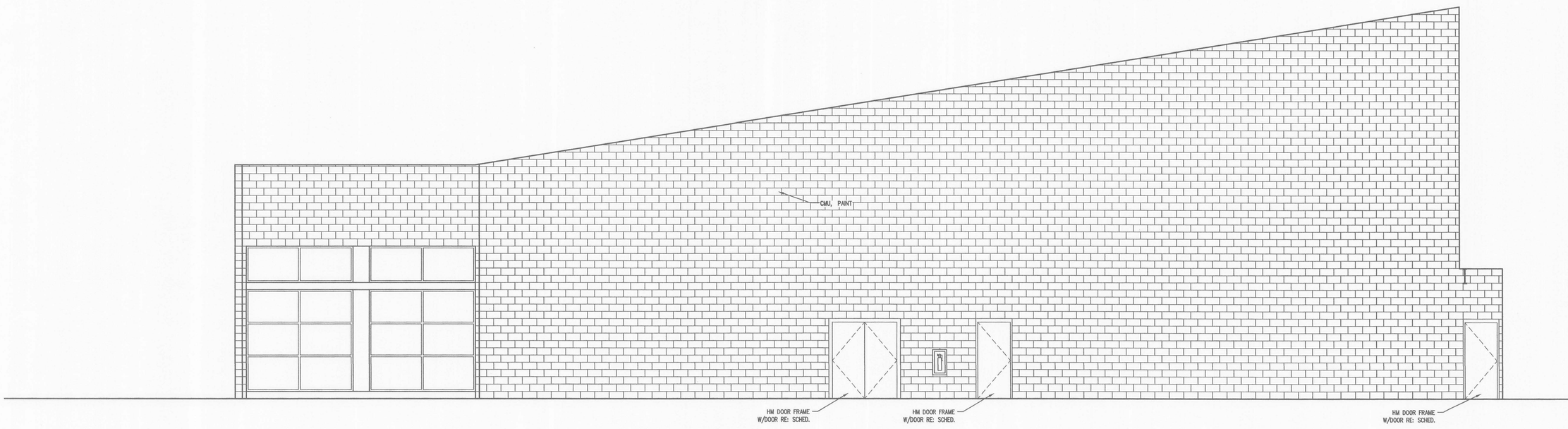
Drawn by: MCA/SCD
Checked by: JQP

A5.12




1 NATATORIUM- NORTH ELEVATION

SCALE: 1/4" = 1'-0"




2 NATATORIUM- SOUTH ELEVATION

SCALE: 1/4" = 1'-0"

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STATE OF NEW MEXICO
JOHN QUINN PATE
NO. 7894
REGISTERED ARCHITECT
6/29/07

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Raton Aquatics Center
Raton, New Mexico

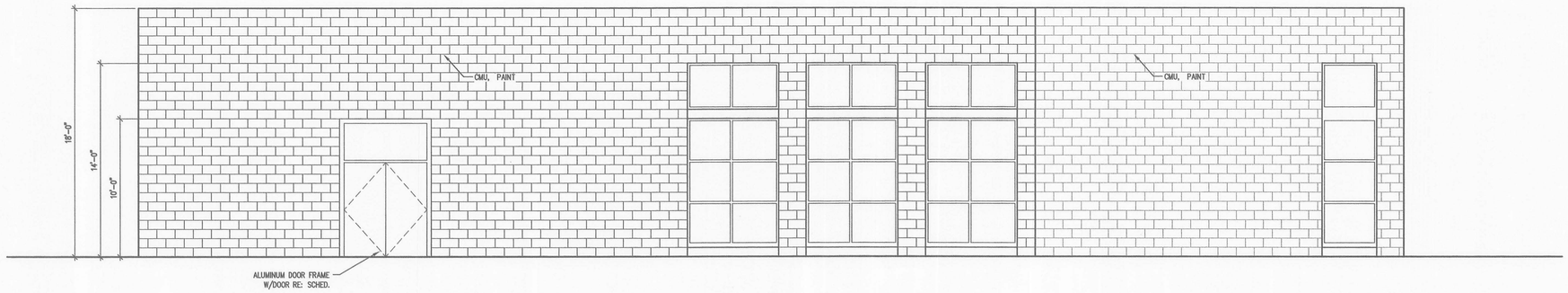
MCA Project No.: RAT 051-12

INTERIOR ELEVATIONS

PROJECT ARCHITECT: John Quinn Pate, RA

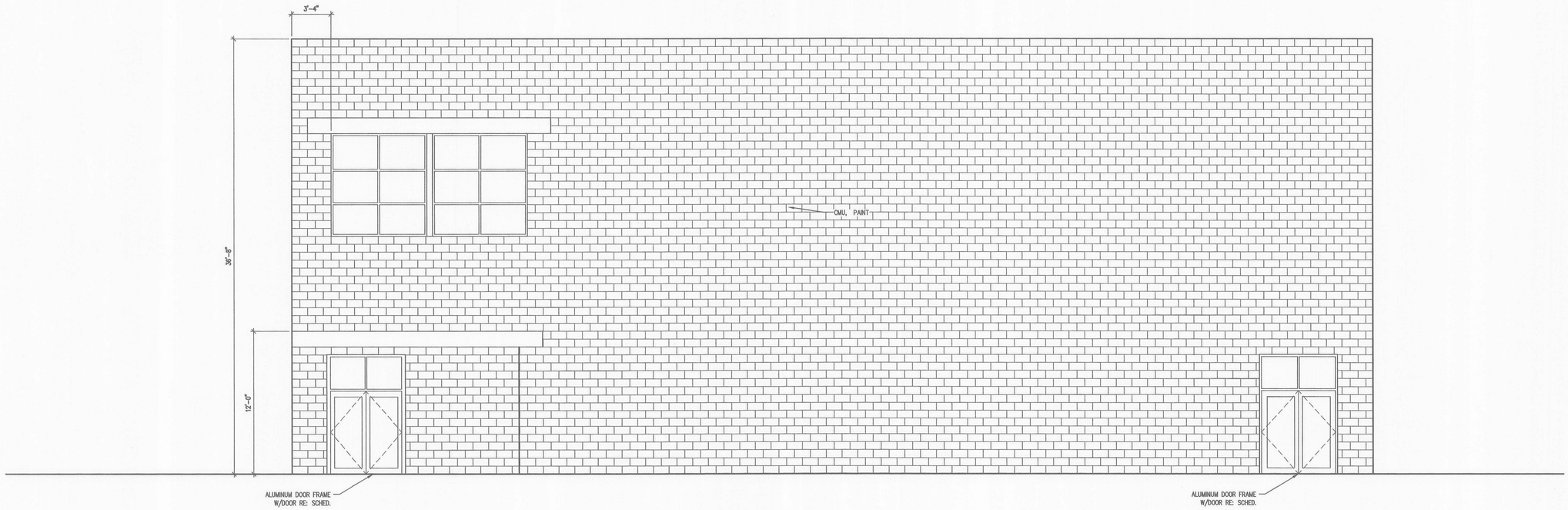
Drawn by: MCA/SCD
Checked by: JQP

A5.13




1 NATATORIUM- EAST ELEVATION

SCALE: 1/4" = 1'-0"




2 NATATORIUM- WEST ELEVATION

SCALE: 1/4" = 1'-0"

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Raton Aquatics Center
Raton, New Mexico

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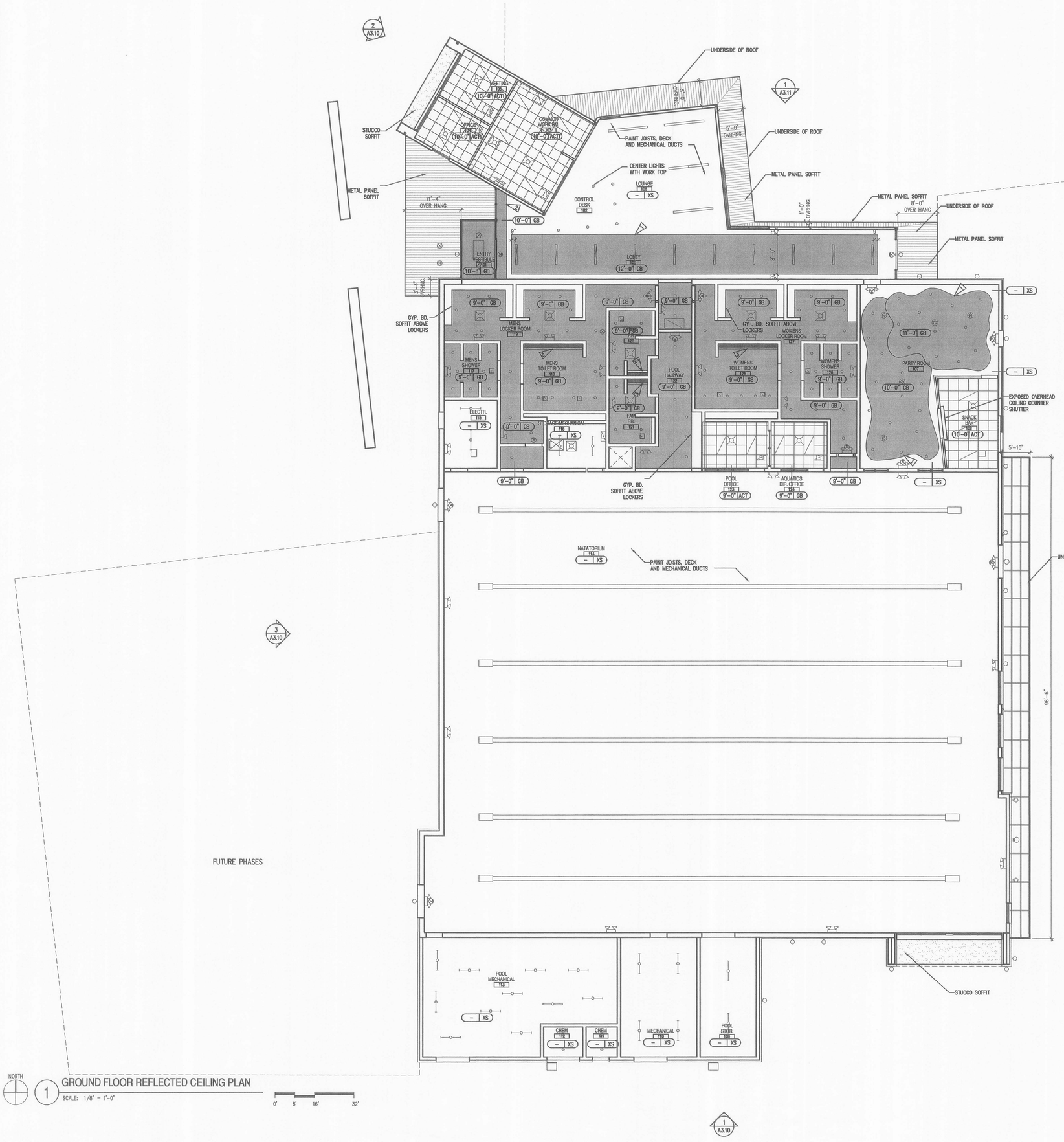
Checked by: JQP

A5.14




NORTH

1 GROUND FLOOR REFLECTED CEILING PLAN

SCALE: 1/8" = 1'-0"

0' 8' 16' 32'

## RCP LEGEND

CEILING TYPE, SEE SHT A9.80 — 10'-0" GB — CEILING HEIGHT ABOVE F.F. — CEILING SYMBOL

FLAGNOTES:

1. PROVIDE FINISHED 3 5/8" MIN. GYP. EDGE AROUND CLOUD WITH J-MOLD AT TOP EDGE RE: 9 & 10/A9.40
2. GYP. BD. SOFFIT, RE: 3/A9.40
3. LIGHT COVE, RE: 2/A9.40

2' X 4' "SECOND LOOK" 2X2 SCORE PATTERN TILE ACT-1

GB CEILING OVER SUSPENDED MTL FRAMING SYSTEM

XS — EXPOSED STRUCTURAL SYSTEM ABOVE

### LIGHT FIXTURE SYMBOLS

SEE ELECTRICAL DWGS FOR ALL FIXTURE TYPES

- 4' INDUSTRIAL STRIP FLUOR FIXTURE
- 8' INDUSTRIAL STRIP FLUOR FIXTURE
- PENDANT MOUNTED LIGHT FIXTURE
- GYP-BOARD RECESSED COVE WITH PARABOLIC LOUVER. SEE DETAIL 2/A9.40
- 2' X 4' RECESSED FLUOR LIGHT FIXTURE
- 2' X 2' RECESSED FLUOR LIGHT FIXTURE
- 1' X 4' RECESSED FLUOR LIGHT FIXTURE
- TRACK LIGHTING SYSTEM
- RECESSED CAN DOWNLIGHT
- WALL MOUNTED SCONCE
- BATT. POWERED EMERGENCY LIGHT FIXTURE
- EXIT LIGHT, WALL OR CEILING MOUNTED
- SUSPENDED DIRECT/INDIRECT FLUOR. LIGHT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303 308 0200
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NOTICE OF EXTENDED PAYMENT PROVISIONS: THIS CONTRACT ALLOWS THE OWNER TO MAKE PAYMENT WITHIN 45 DAYS AFTER SUBMISSION OF AN UNDISPUTED REQUEST FOR PAYMENT


STATE OF NEW MEXICO JOHN QUINN POTE NM. 1794 REGISTERED ARCHITECT

6/24/07

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| Bid Document | 6-24-07 |

Raton Aquatics Center
Raton, New Mexico

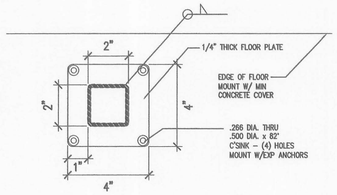
MCA Project No.: RAT 051-12

GROUND FLOOR REFLECTED CEILING PLAN

PROJECT ARCHITECT: John Quinn Pote, RA

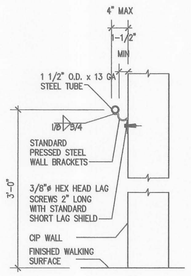
Drawn by: MCA/SCD
Checked by: JQP

A6.10



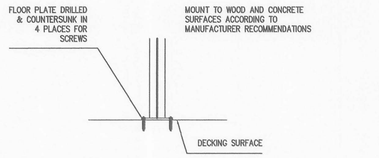

## 6 RAILING MOUNT

SCALE: NTS



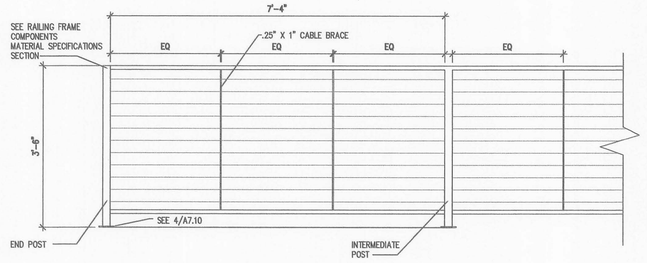

## 5 HAND RAIL DETAIL

SCALE: 1" = 1'-0"



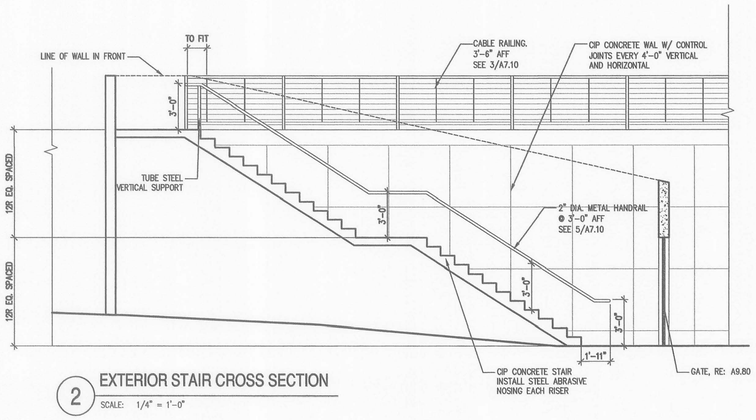

## 4 RAILING MOUNT

SCALE: 1 1/2" = 1'-0"



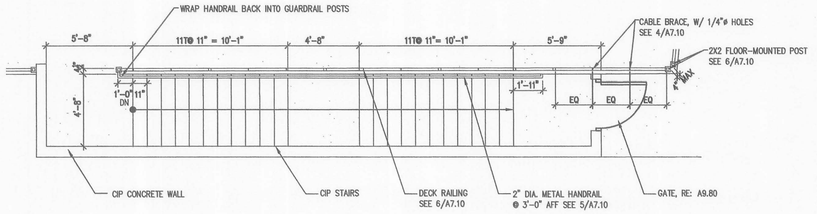

## 3 CABLE RAILING

SCALE: 3/4" = 1'-0"




## 2 EXTERIOR STAIR CROSS SECTION

SCALE: 1/4" = 1'-0"




## 1 EXTERIOR STAIR PLAN

SCALE: 1/4" = 1'-0"

## SHEET NOTES

1. ALL STAIR TREADS TO HAVE A CODE COMPLIANT NON-SKID SURFACE.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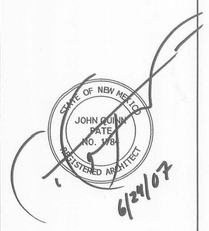


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| Bid Document | 6-24-07 |

**Raton Aquatics Center**
Raton, New Mexico

MCA Project No.: RAT 051-12

EXTERIOR STAIR PLANS & SECTIONS

PROJECT ARCHITECT: John Quinn Pate, RA

Drawn by: MCA/SCD
Checked by: JQP

A7.10

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5 STUCCO CORNER @ CMU
SCALE: 1 1/2" = 1'-0"




4 STUCCO / METAL PANEL CORNER @ CMU
SCALE: 1 1/2" = 1'-0"




3 STUCCO CORNER @ CMU WING WALL
SCALE: 1 1/2" = 1'-0"




2 STUCCO CORNER @ MTL. STUD
SCALE: 1 1/2" = 1'-0"




1 METAL PANEL CORNER DETAIL @ CMU
SCALE: 1 1/2" = 1'-0"




6 STUCCO CORNER @ WING WALL MTL. STUD
SCALE: 1 1/2" = 1'-0"

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# Raton Aquatics Center

Raton, New Mexico

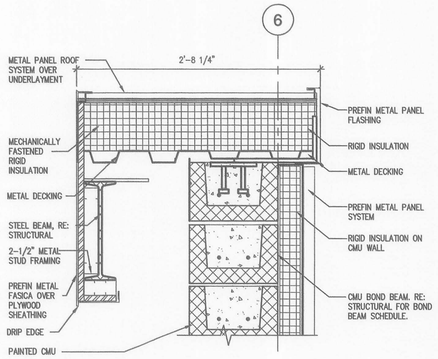
MCA Project No.: RAT 051-12

## PLAN DETAILS

PROJECT ARCHITECT: John Quinn Pate, RA

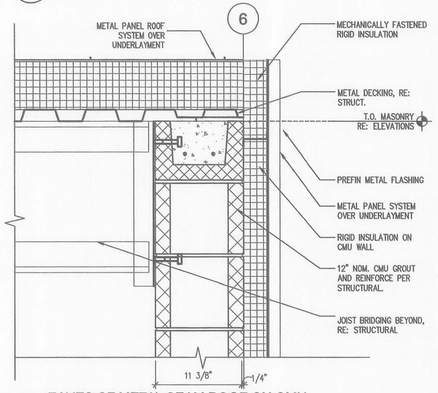
Drawn by: MCA/SCD
Checked by: JQP

A8.10



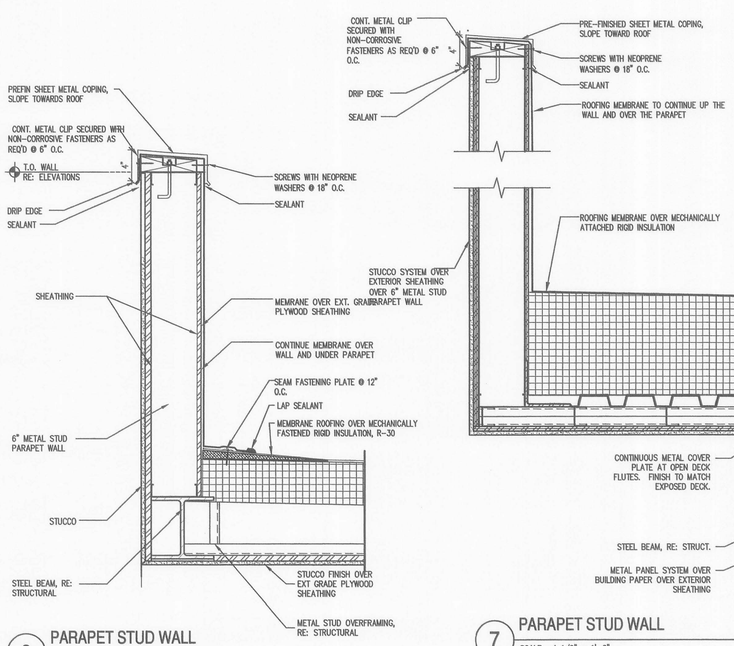

12 ROOF@ CMU WALL

SCALE: 1 1/2" = 1'-0"




9 EAVES OF METAL SEAM ROOF ON CMU

SCALE: 1 1/2" = 1'-0"



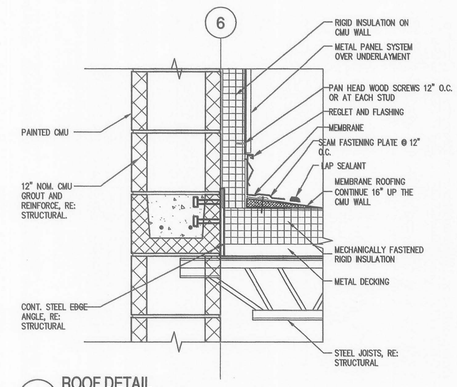

8 PARAPET STUD WALL

SCALE: 1 1/2" = 1'-0"



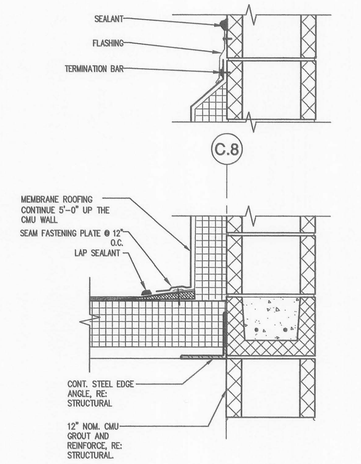

7 PARAPET STUD WALL

SCALE: 1 1/2" = 1'-0"



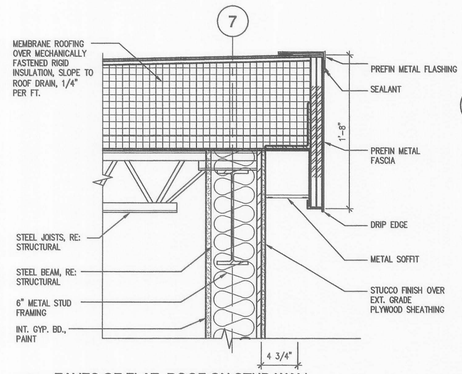

14 ROOF DETAIL

SCALE: 1 1/2" = 1'-0"



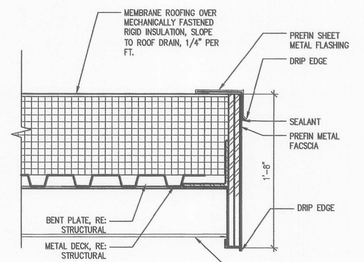

13 ROOF DETAIL

SCALE: 1 1/2" = 1'-0"



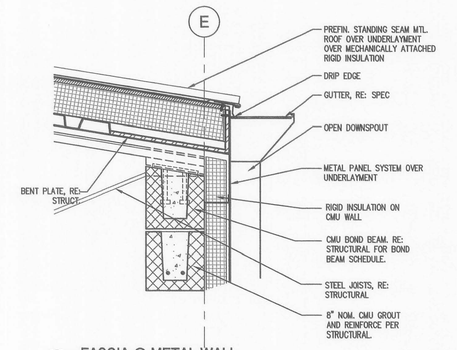

11 EAVES OF FLAT ROOF ON STUD WALL

SCALE: 1 1/2" = 1'-0"




10 EAVES OF FLAT ROOF

SCALE: 1 1/2" = 1'-0"

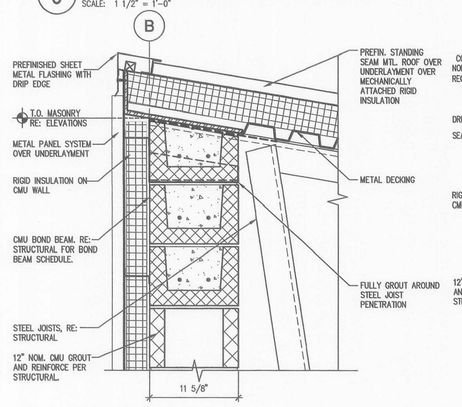



6 FASCIA @ METAL WALL

SCALE: 1 1/2" = 1'-0"

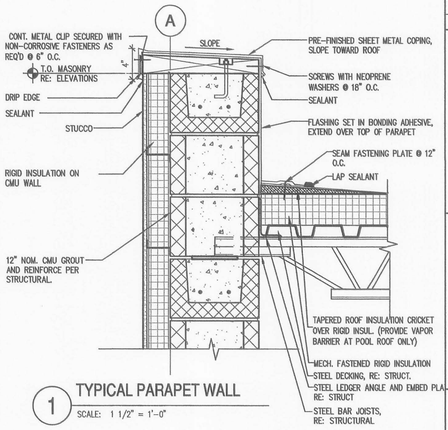
5 NOT USED

SCALE: 1 1/2" = 1'-0"




2 ROOF @ CMU WALL

SCALE: 1 1/2" = 1'-0"




1 TYPICAL PARAPET WALL

SCALE: 1 1/2" = 1'-0"

3 ROOF@ CMU WALL

SCALE: 1 1/2" = 1'-0"

4 NOT USED

SCALE: 1 1/2" = 1'-0"

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JOHN QUINN PATE
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Raton Aquatics Center
Raton, New Mexico

MCA Project No.: RAT 051-12

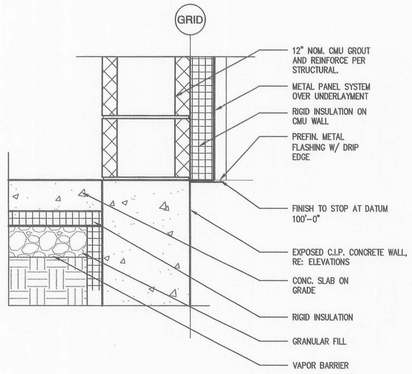
ROOF DETAILS

PROJECT ARCHITECT: John Quinn Pate, RA

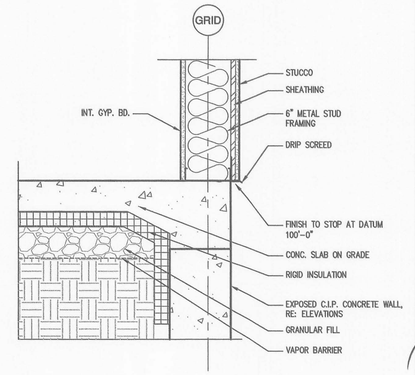
Drawn by: MCA/SCD

Checked by: JQP

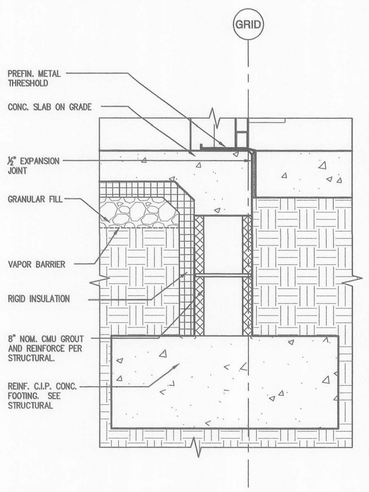
A8.20



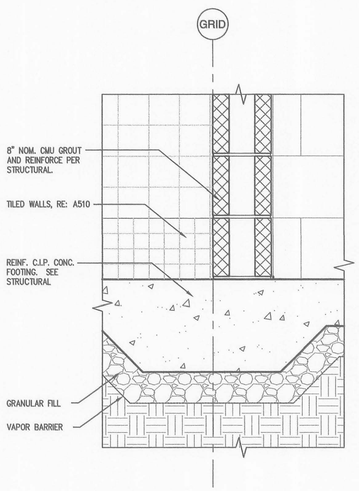

7 FOUNDATION DETAIL @ CMU & METAL PANEL
SCALE: 1 1/2" = 1'-0"



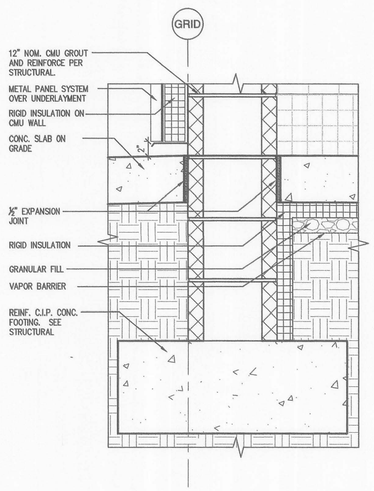

6 FOUNDATION DETAIL @ MTL. STUD WALL AND STUCCO
SCALE: 1 1/2" = 1'-0"



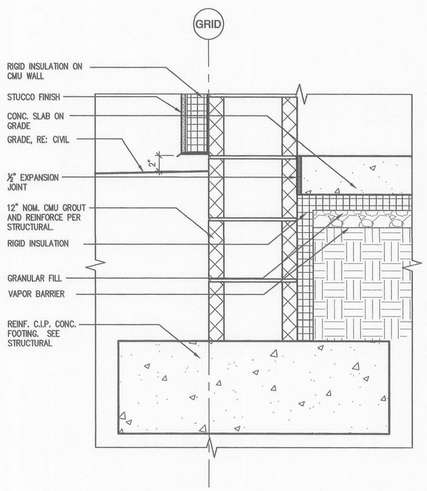

5 FOUNDATION DETAIL @ THRESHOLD
SCALE: 1 1/2" = 1'-0"



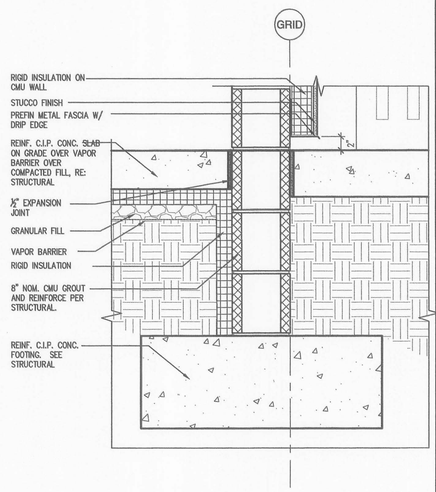

4 FOUNDATION @ INT. CMU WALL
SCALE: 1 1/2" = 1'-0"




3 FOUNDATION DETAIL @ CMU & METAL PANEL
SCALE: 1 1/2" = 1'-0"




2 FOUNDATION DETAIL @ CMU & STUCCO
SCALE: 1 1/2" = 1'-0"




1 FOUNDATION DETAIL @ CMU AND STUCCO
SCALE: 1 1/2" = 1'-0"

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Raton Aquatics Center
Raton, New Mexico

MCA Project No.: RAT 051-12

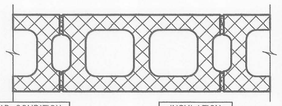
FOUNDATION DETAILS

PROJECT ARCHITECT: John Quinn Pate, RA

Drawn by: MCA/SCD
Checked by: JQP

A8.30

## 40 CONCRETE MASONRY UNIT WALL



NOTE: NOMINAL BLOCK DIMENSIONS UNFINISHED OR PAINTED – SEE ROOM FINISH SCHEDULE

**WIDTH OF BLOCK**

- A 4" STANDARD BLOCK
- B 6" STANDARD BLOCK
- C 8" STANDARD BLOCK
- D 10" STANDARD BLOCK
- E 12" STANDARD BLOCK
- F 4" SCORED BLOCK
- G 6" SCORED BLOCK
- H 8" SCORED BLOCK
- I NOT USED
- J 10" SCORED BLOCK
- K 12" SCORED BLOCK
- L 4" GROUND FACE BLOCK
- M 6" GROUND FACE BLOCK
- N 8" GROUND FACE BLOCK
- O 10" GROUND FACE BLOCK
- P 12" GROUND FACE BLOCK
- Q 4" COLORED / SCORED
- R 6" COLORED / SCORED
- S 8" COLORED / SCORED
- T 10" COLORED / SCORED
- U 12" COLORED / SCORED

REFER TO STRUCTURAL DWGS. FOR WALL REINFORCING CRITERIA AND CONNECTION OF WALL TO DECK ABOVE.

**HEAD CONDITION**

1 EXTEND CMU AND SOUND INSULATION (WHERE SCHEDULED) TO STRUCTURE ABOVE
2 TERMINATE CMU AND SOUND INSULATION (WHERE SCHEDULED) AT NEXT BLOCK DIMENSION ABOVE FINISHED CEILING
3 TERMINATE CMU AND SOUND INSULATION (WHERE SCHEDULED) AT NEXT BLOCK DIMENSION ABOVE FINISHED CEILING – BRACE WALL DIAGONALLY TO STRUCTURE ABOVE @ 48" O.C.
4 TERMINATE CMU AND SOUND INSULATION (WHERE SCHEDULED) 1/4" BELOW FINISHED CEILING
5 NOT USED
6 TERMINATE CMU AT COUNTER HEIGHT
7 NOT USED
8 TERMINATE CMU AT 8'-0"

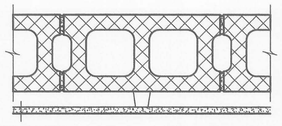
**INSULATION**

A ACOUSTIC BATT INSULATION TO MATCH FRAMING SIZE UNLESS OTHERWISE NOTED
T THERMAL BATT INSULATION TO MATCH FRAMING SIZE UNLESS OTHERWISE NOTED
U UNINSULATED

**FIRE RATING**

R1 1 HOUR WALL – UL# U905
R2 2 HOUR WALL – 8" BLOCK UL# 905 6" BLOCK UL# 906
R3 3 HOUR WALL – UL# U904
R4 4 HOUR WALL – UL# U901

## 41 CMU WALL GYPSUM – ONE SIDE



NOTE: 5/8" GYPSUM BOARD UNLESS OTHERWISE NOTED

**WIDTH OF BLOCK– WIDTH OF FRAMING**

- A 4" BLOCK – 7/8" FURRING
- B 6" BLOCK – 7/8" FURRING
- C 8" BLOCK – 7/8" FURRING
- D 10" BLOCK – 7/8" FURRING
- E 12" BLOCK – 7/8" FURRING
- F 4" BLOCK – 1-1/2" FURRING
- G 6" BLOCK – 1-1/2" FURRING
- H 8" BLOCK 1-1/2" FURRING
- I NOT USED
- J 10" BLOCK – 1-1/2" FURRING
- K 12" BLOCK – 1-1/2" FURRING
- L 4" BLOCK– 2-1/2" MTL STD
- M 6" BLOCK– 2-1/2" MTL STD
- N 8" BLOCK– 2-1/2"MTL STD
- O 10" BLOCK– 2-1/2" MTL STD
- P 12" BLOCK– 2-1/2" MTL STD
- Q 4" BLOCK– 3-5/8" MTL STD
- R 6" BLOCK– 3-5/8" MTL STD
- S 8" BLOCK– 3-5/8" MTL STD
- T 10" BLOCK–3-5/8" MTL STD
- U 12" BLOCK– 3-5/8"MTL STD

REFER TO STRUCTURAL DWGS. FOR WALL REINFORCING CRITERIA AND CONNECTION OF WALL TO DECK ABOVE.

**HEAD CONDITION**

1 EXTEND CMU, SOUND INSULATION (WHERE SCHEDULED) FURRING AND GYPSUM BOARD TO STRUCTURE ABOVE
2 EXTEND CMU AND SOUND INSULATION (WHERE SCHEDULED) TO STRUCTURE ABOVE – TERMINATE FURRING AND GYPSUM BOARD AT NEXT BLOCK DIMENSION ABOVE ACT CEILINGS (GYP. CEILINGS TERMINATE AT FINISHED CEILING)
3 TERMINATE CMU, FURRING, GYPSUM BOARD AND SOUND INSULATION (WHERE SCHEDULED) AT NEXT BLOCK DIMENSION ABOVE ACT CEILINGS – (GYP. CEILINGS TERMINATE AT FINISHED CEILING)
4 TERMINATE CMU, FURRING, GYPSUM BOARD AND SOUND INSULATION (WHERE SCHEDULED) AT NEXT BLOCK DIMENSION ABOVE ACT CEILINGS – (GYP. CEILINGS TERMINATE AT FINISHED CEILING) –BRACE WALL DIAGONALLY TO STRUCTURE ABOVE @ 48" O.C.
5 TERMINATE CMU, FURRING, GYPSUM BOARD AND SOUND INSULATION (WHERE SCHEDULED) 1/4" BELOW FINISHED CEILING
6 TERMINATE CMU, FURRING AND GYPSUM BOARD AT COUNTER HEIGHT

**INSULATION**

A ACOUSTIC BATT INSULATION TO MATCH FRAMING SIZE UNLESS OTHERWISE NOTED
T THERMAL BATT INSULATION TO MATCH FRAMING SIZE UNLESS OTHERWISE NOTED
U UNINSULATED

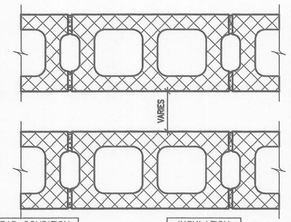
**SHEATHING**

1 5/8 GYPSUM BOARD
2 5/8 WATER RESISTANT GYPSUM BOARD
3 1/2 FIBERGLASS REINFORCED CONCRETE BOARD

**FIRE RATING**

R1 1 HOUR WALL – UL# U905
R2 2 HOUR WALL – 8" BLOCK UL# 905 6" BLOCK UL# 906
R3 3 HOUR WALL – UL# U914
R4 4 HOUR WALL – UL# U901

## 43 CMU CHASE WALL




NOTE: NOMINAL BLOCK DIMENSIONS UNFINISHED OR PAINTED – SEE ROOM FINISH SCHEDULE

**WIDTH OF BLOCK**

- A 4" STANDARD BLOCK
- B 6" STANDARD BLOCK
- C 8" STANDARD BLOCK
- D 10" STANDARD BLOCK
- E 12" STANDARD BLOCK
- F 4" SCORED BLOCK
- G 6" SCORED BLOCK
- H 8" SCORED BLOCK
- I NOT USED
- J 10" SCORED BLOCK
- K 12" SCORED BLOCK
- L 4" GROUND FACE BLOCK
- M 6" GROUND FACE BLOCK
- N 8" GROUND FACE BLOCK
- O 10" GROUND FACE BLOCK
- P 12" GROUND FACE BLOCK
- Q 4" SPLIT FACE BLOCK
- R 6" SPLIT FACE BLOCK
- S 8" SPLIT FACE BLOCK
- T 10" SPLIT FACE BLOCK
- U 12" SPLIT FACE BLOCK

REFER TO STRUCTURAL DWGS. FOR WALL REINFORCING CRITERIA AND CONNECTION OF WALL TO DECK ABOVE.

**HEAD CONDITION**

1 EXTEND CMU AND SOUND INSULATION (WHERE SCHEDULED) TO STRUCTURE ABOVE
2 EXTEND (ONE SIDE) CMU AND SOUND INSULATION (WHERE SCHEDULED) TO STRUCTURE ABOVE – TERMINATE OTHER SIDE OF CMU AND SOUND INSULATION (WHERE SCHEDULED) AT NEXT BLOCK DIMENSION ABOVE FINISHED CEILING
3 TERMINATE CMU AND SOUND INSULATION (WHERE SCHEDULED) AT NEXT BLOCK DIMENSION ABOVE FINISHED CEILING
4 TERMINATE CMU AND SOUND INSULATION (WHERE SCHEDULED) AT NEXT BLOCK DIMENSION ABOVE FINISHED CEILING – BRACE WALL DIAGONALLY TO STRUCTURE ABOVE @ 48" O.C.
5 TERMINATE CMU AND SOUND INSULATION (WHERE SCHEDULED) 1/4" BELOW FINISHED CEILING
6 TERMINATE CMU AT COUNTER HEIGHT

**INSULATION**

A ACOUSTIC BATT INSULATION TO MATCH FRAMING SIZE UNLESS OTHERWISE NOTED
T THERMAL BATT INSULATION TO MATCH FRAMING SIZE UNLESS OTHERWISE NOTED
U UNINSULATED

**FIRE RATING**

R1 1 HOUR WALL – UL# U905
R2 2 HOUR WALL – 8" BLOCK UL# 905 6" BLOCK UL# 906
R3 3 HOUR WALL – UL# U904
R4 4 HOUR WALL – UL# U901

## 50 METAL STUD W/ SINGLE LAYER GYPSUM BOARD ONE SIDE

NOTE: TYPICAL SHEATHING – 5/8" GYPSUM BOARD UNLESS OTHERWISE NOTED

**WIDTH OF FRAMING**

- A 7/8" FURRING CHANNEL
- B 1-1/2" FURRING CHANNEL
- C 1-5/8" METAL STUDS
- D 2-1/2" METAL STUDS
- E 3-1/2" METAL STUDS
- F 3-5/8" METAL STUDS
- G 4" METAL STUDS
- H 5-1/2" METAL STUDS
- I NOT USED
- J 6" METAL STUDS
- K 7-1/4" METAL STUDS
- L 8" METAL STUDS
- M 9-1/4" METAL STUDS
- N 10" METAL STUDS
- O 11-1/2" METAL STUDS
- P 12" METAL STUDS

**HEAD CONDITION**

1 EXTEND METAL STUDS, SOUND INSULATION (WHERE SCHEDULED) AND GYPSUM BOARDS (BOTH SIDES) TO STRUCTURE ABOVE
2 EXTEND METAL STUDS TO STRUCTURE ABOVE – TERMINATE GYPSUM BOARD AND SOUND INSULATION (WHERE SCHEDULED) 6" ABOVE ACT CEILINGS – (GYP. CEILINGS TERMINATE AT FINISHED CEILING)
3 TERMINATE METAL STUDS, GYPSUM BOARD AND SOUND INSULATION (WHERE SCHEDULED) 6" ABOVE ACT CEILINGS – (GYP. CEILINGS TERMINATE AT FINISHED CEILING) –BRACE WALL DIAGONALLY TO STRUCTURE ABOVE @ 48" O.C.
4 NOT USED
5 NOT USED
6 TERMINATE METAL STUDS AND GYPSUM BOARDS (BOTH SIDES) TO COUNTER HEIGHT

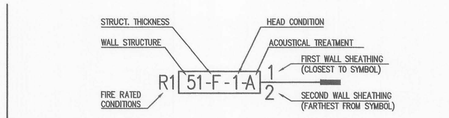
**INSULATION**

A ACOUSTIC BATT INSULATION TO MATCH FRAMING SIZE UNLESS OTHERWISE NOTED
T THERMAL BATT INSULATION TO MATCH FRAMING SIZE UNLESS OTHERWISE NOTED
U UNINSULATED

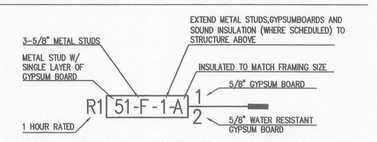
**SHEATHING**

1 5/8 GYPSUM BOARD
2 5/8 WATER RESISTANT GYPSUM BOARD
3 1/2 FIBERGLASS REINFORCED CONCRETE BOARD
4 5/8 IMPACT RESISTANT GYPSUM BOARD

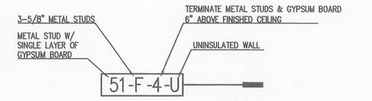
**FIRE RATING**




LEGEND




EXAMPLE 1: FIRE RATED METAL STUD WALL – ACOUSTICALLY INSULATED WITH TWO DIFFERENT WALL SHEATHINGS




EXAMPLE 2: METAL STUD WALL WITH STANDARD 5/8" GYPSUM BOARD SHEATHING BOTH SIDES

## 51 METAL STUD W/ SINGLE LAYER GYPSUM BOARD BOTH SIDES

NOTE: TYPICAL SHEATHING – 5/8" GYPSUM BOARD UNLESS OTHERWISE NOTED

**WIDTH OF FRAMING**

- A 7/8" FURRING CHANNEL
- B 1-1/2" FURRING CHANNEL
- C 1-5/8" METAL STUDS
- D 2-1/2" METAL STUDS
- E 3-1/2" METAL STUDS
- F 3-5/8" METAL STUDS
- G 4" METAL STUDS
- H 5-1/2" METAL STUDS
- I NOT USED
- J 6" METAL STUDS
- K 7-1/4" METAL STUDS
- L 8" METAL STUDS
- M 9-1/4" METAL STUDS
- N 10" METAL STUDS
- O 11-1/2" METAL STUDS
- P 12" METAL STUDS

**HEAD CONDITION**

1 EXTEND METAL STUDS, SOUND INSULATION (WHERE SCHEDULED) AND GYPSUM BOARDS (BOTH SIDES) TO STRUCTURE ABOVE
2 EXTEND METAL STUDS, SOUND INSULATION (WHERE SCHEDULED) AND GYPSUM BOARD (ONE SIDE) TO STRUCTURE ABOVE – TERMINATE OTHER SIDE OF GYPSUM BOARD 6" ABOVE ACT CEILINGS – (GYP. CEILINGS TERMINATE AT FINISHED CEILING)
3 EXTEND METAL STUDS TO STRUCTURE ABOVE – TERMINATE BOTH SIDES OF GYPSUM BOARD AND SOUND INSULATION (WHERE SCHEDULED) 6" ABOVE ACT CEILINGS – (GYP. CEILINGS TERMINATE AT FINISHED CEILING) –BRACE WALL DIAGONALLY TO STRUCTURE ABOVE @ 48" O.C.
4 TERMINATE METAL STUDS, BOTH SIDES OF GYPSUM BOARD AND SOUND INSULATION (WHERE SCHEDULED) 6" ABOVE ACT CEILINGS – (GYP. CEILINGS TERMINATE AT FINISHED CEILING) –BRACE WALL DIAGONALLY TO STRUCTURE ABOVE @ 48" O.C.
5 TERMINATE METAL STUDS, SOUND INSULATION (WHERE SCHEDULED) AND GYPSUM BOARDS (BOTH SIDES) AT FINISHED CEILING
6 TERMINATE METAL STUDS AND GYPSUM BOARDS (BOTH SIDES) TO COUNTER HEIGHT

**INSULATION**

A ACOUSTIC BATT INSULATION TO MATCH FRAMING SIZE UNLESS OTHERWISE NOTED
T THERMAL BATT INSULATION TO MATCH FRAMING SIZE UNLESS OTHERWISE NOTED
U UNINSULATED

**SHEATHING**

1 5/8 GYPSUM BOARD
2 5/8 WATER RESISTANT GYPSUM BOARD
3 1/2 FIBERGLASS REINFORCED CONCRETE BOARD
4 5/8 IMPACT RESISTANT GYPSUM BOARD
5 1/2 EXTERIOR GYPSUM SHEATHING

**FIRE RATING**

R1 1 HOUR WALL – UL# U419

## GENERAL WALL TYPE NOTES:

ALL WALL TYPES SHOWN IN PLAN ARE ASSUMED TO EXTEND AROUND CORNERS AND OPENINGS UNTIL ANOTHER DESIGNATION NOTE CHANGES.

UNLEES OTHERWISE NOTED, PLAN DIMENSIONS LISTED ARE TO FACE OF STUD OR CMU BLOCK. IN ALL WALLS WITH PLUMBING AND RECESSED EQUIPMENT, PROVIDE ADEQUATE WALL DEPTH IN ADDITION TO STUD OR BLOCK SIZE DESIGNATED.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Denver, Colorado 80203
303 308 0200
FAX 308 0222


NOTICE OF EXTENDED PAYMENT PROVISIONS: THIS CONTRACT ALLOWS THE OWNER TO MAKE PAYMENT WITHIN 45 DAYS AFTER SUBMISSION OF AN UNDISPUTED REQUEST FOR PAYMENT

STATE OF NEW MEXICO JOHN QUINN PATE NO. 1794 REGISTERED ARCHITECT
6/24/07

| Issues/Revisions: | Date: |
|---|---|
| Bid Document | 6–24–07 |

Raton Aquatics Center
Raton, New Mexico

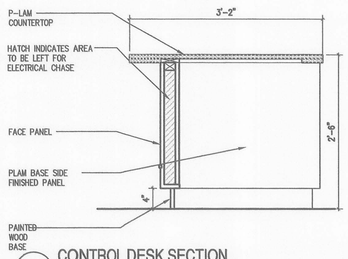
MCA Project No.: RAT 051–12

PARTITION TYPES

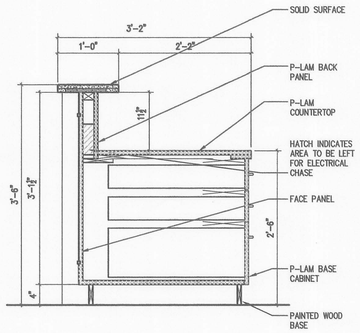
PROJECT ARCHITECT: John Quinn Pate, RA

Drawn by: MCA/SCD
Checked by: JQP

A9.10




11 CONTROL DESK SECTION
SCALE: 1" = 1'-0"




10 CONTROL DESK SECTION
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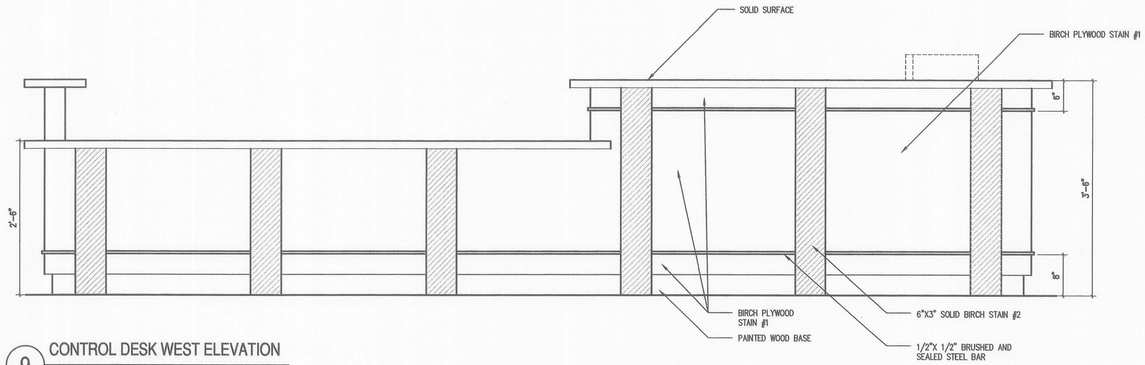


9 CONTROL DESK WEST ELEVATION
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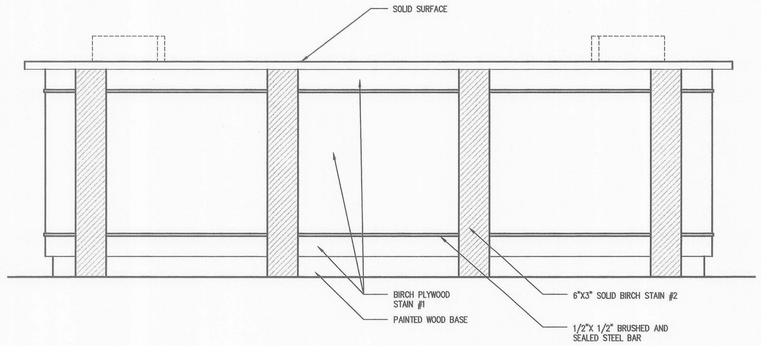


8 CONTROL DESK ELEVATION
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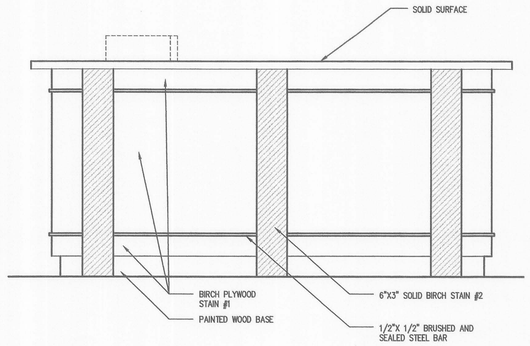
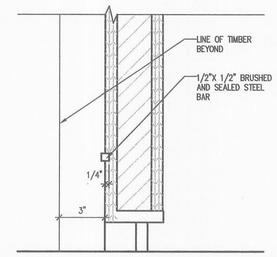
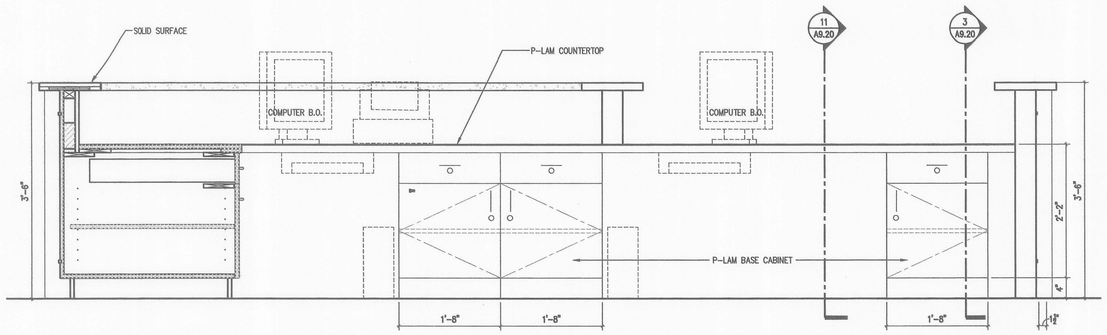


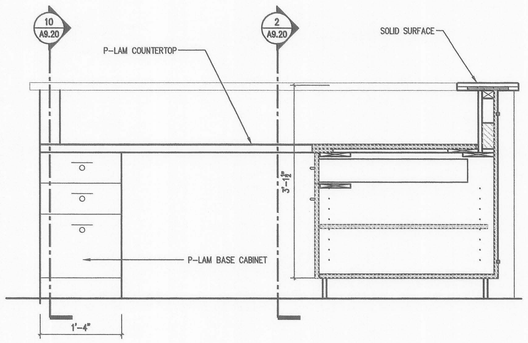

7 CONTROL DESK EAST ELEVATION
SCALE: 1" = 1'-0"




12 DETAIL
SCALE: 3/4" = 1'-0"

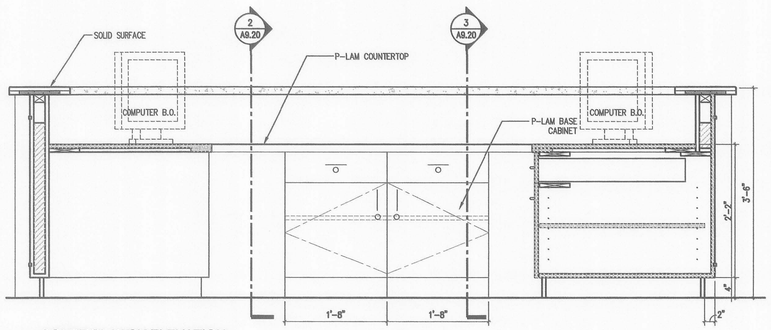



6 CONTROL DESK ELEVATION
SCALE: 1" = 1'-0"

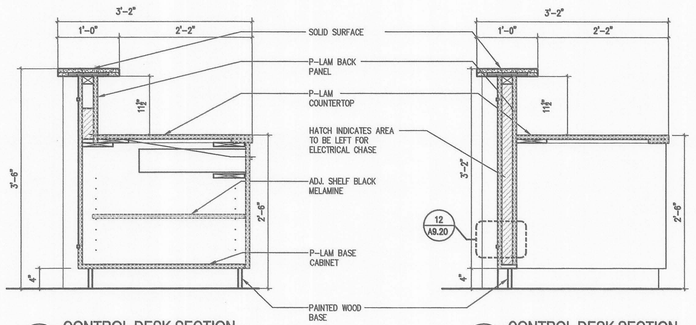



5 CONTROL DESK ELEVATION
SCALE: 1" = 1'-0"

NOTE:
1. REFER A9.90 FOR FINISH LEGEND.
2. ALL CABINETS TO BE LOCKABLE.

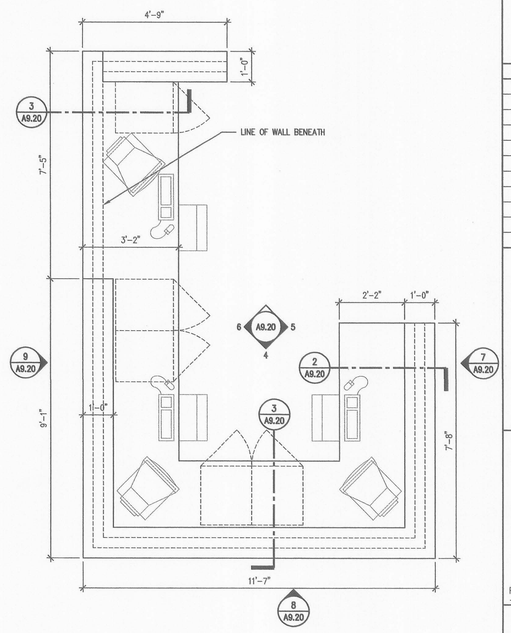



4 CONTROL DESK ELEVATION
SCALE: 1" = 1'-0"




3 CONTROL DESK SECTION
SCALE: 1" = 1'-0"

2 CONTROL DESK SECTION
SCALE: 1" = 1'-0"




1 CONTROL DESK PLAN
SCALE: 1/2" = 1'-0"

Molzen-Corbin & Associates
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303 308 0200
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STATE OF NEW MEXICO
JOHN QUINN PATE
NO. 11784
REGISTERED ARCHITECT
6/24/07

| Issues/Revisions: | Date: |
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| Bid Document | 6-24-07 |

Raton Aquatics Center
Raton, New Mexico

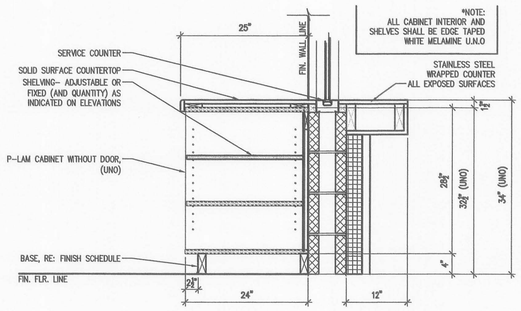
MCA Project No.: RAT 051-12

MILLWORK DETAILS CONTROL DESK

PROJECT ARCHITECT: John Quinn Pate, RA

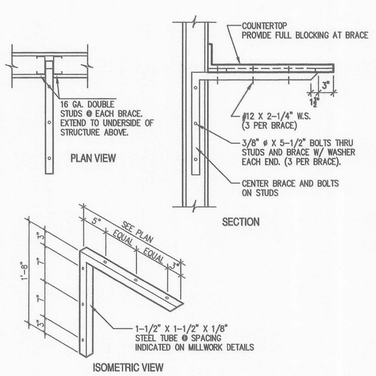
Drawn by: MCA/ SCD
Checked by: JQP

A9.20



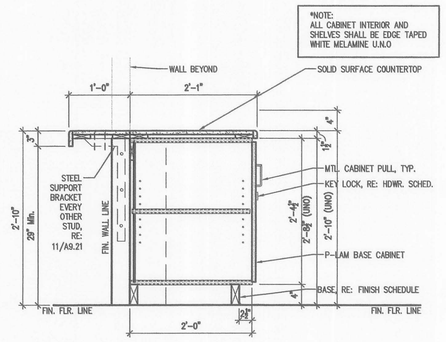

## 12 EXTERIOR COUNTER TOP

SCALE: 1" = 1'-0"



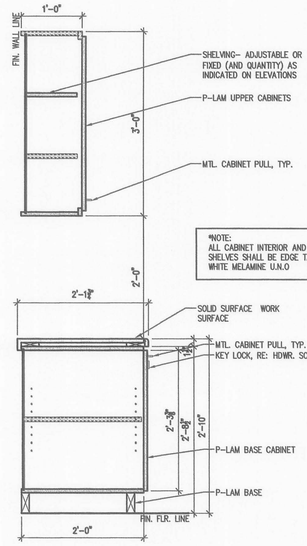

## 11 COUNTER BRACKET DETAIL

SCALE: 1" = 1'-0"



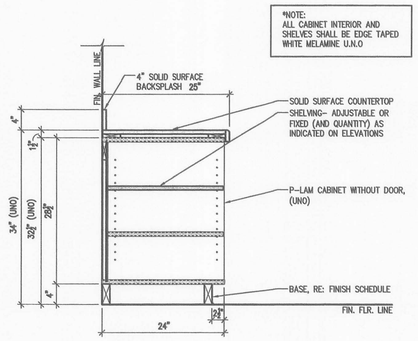

## 10 SERVICE COUNTER AND CABINET

SCALE: 1" = 1'-0"




## 6 WORK SURFACE/CABINET DETAIL

SCALE: 1" = 1'-0"




## 9 STANDARD SHELF BASE CABINET DETAIL

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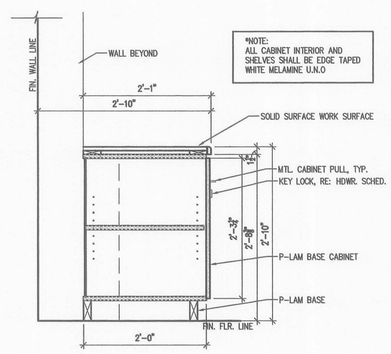
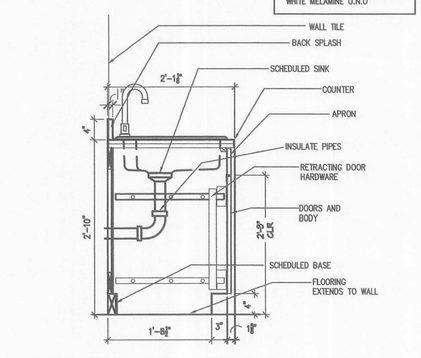


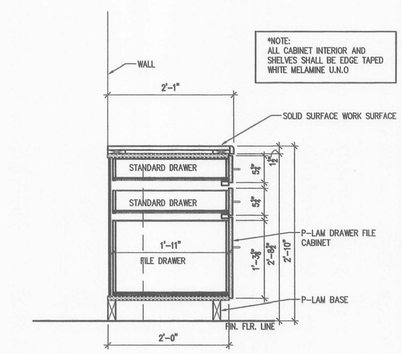

## 8 WORKSURFACE/DRAWER FILE DETAIL

SCALE: 1" = 1'-0"




## 7 STANDARD BASE CABINET DETAIL W/ SINK

SCALE: 1" = 1'-0"




## 5 WORK SURFACE/DRAWER FILE DETAIL

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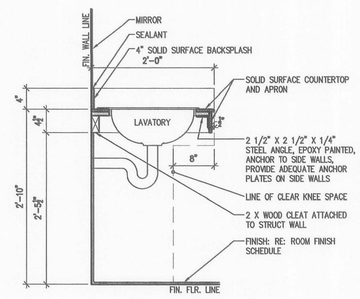
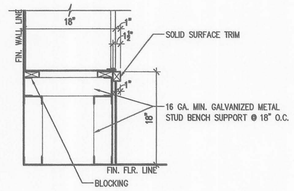


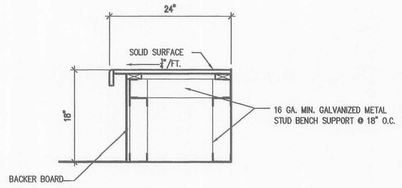

## 4 LAVATORY COUNTER DETAIL

SCALE: 1" = 1'-0"



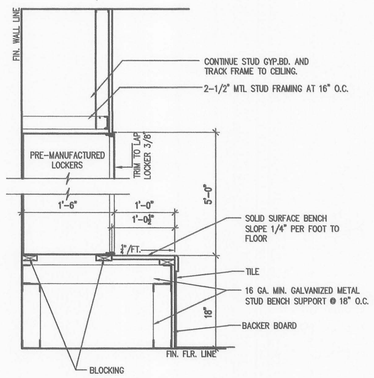

## 3 LOCKER BASE DETAIL

SCALE: 1" = 1'-0"




## 2 BENCH DETAIL

SCALE: 1" = 1'-0"




## 1 LOCKER BENCH DETAIL

SCALE: 1" = 1'-0"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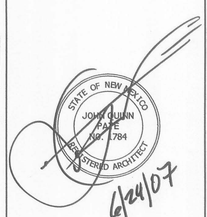



| Issues/Revisions: | Date: |
|---|---|
| Bid Document | 6-24-07 |

Raton Aquatics Center
Raton, New Mexico

MCA Project No.: RAT 051-12

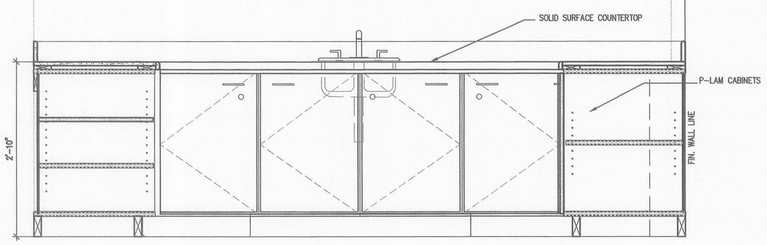
MILLWORK DETAILS

PROJECT ARCHITECT: John Quinn Pate, RA

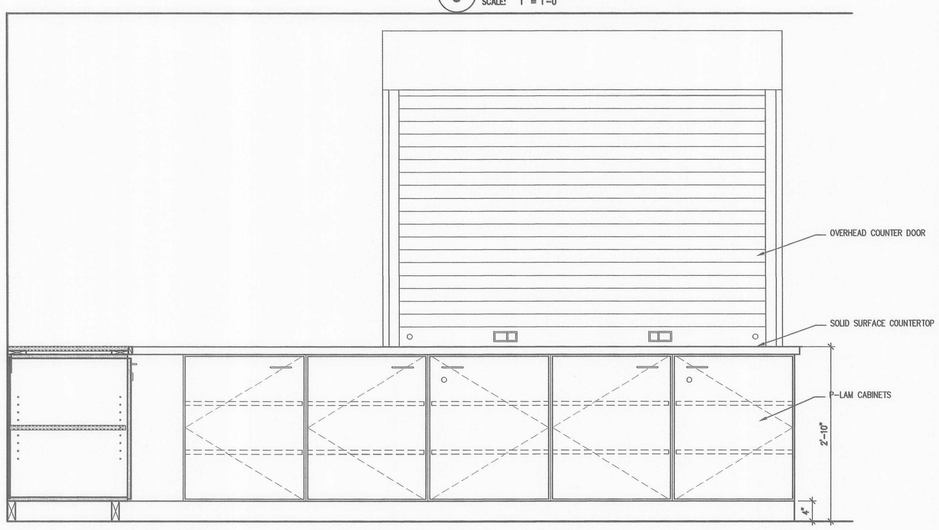
Drawn by: MCA/ SCD
Checked by: JQP

A9.21

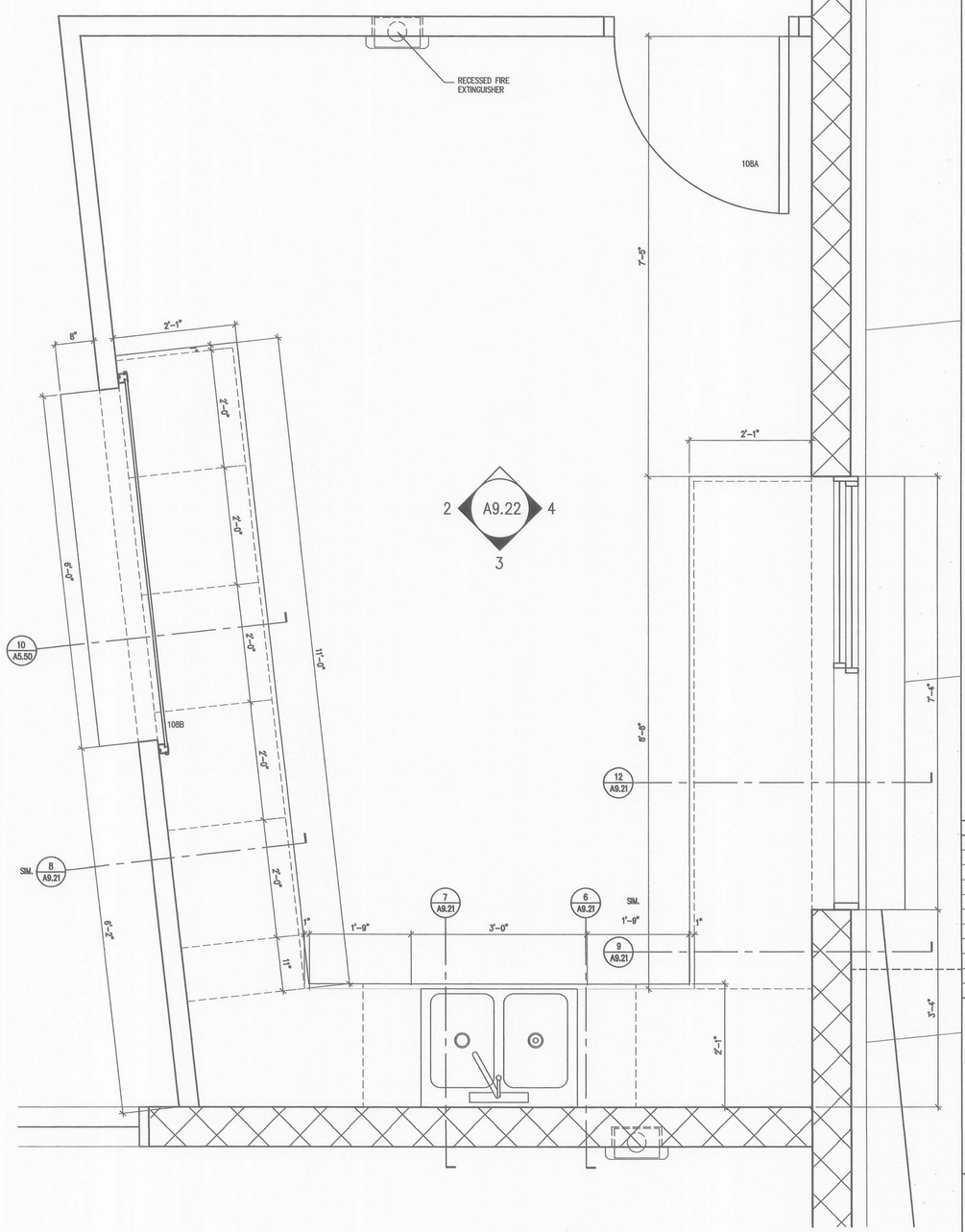
4 SNACK BAR EAST
SCALE: 1" = 1'-0"




3 SNACK BAR SOUTH
SCALE: 1" = 1'-0"




2 SNACK BAR WEST
SCALE: 1" = 1'-0"




1 SNACK BAR PLAN
SCALE: 1" = 1'-0"

Molzen–Corbin & Associates
2701 Miles Road S.E.
Albuquerque, New Mexico 87106
voice (505) 242-5700
fax (505) 242-0673

**SINK COMBS DETHLEFS**

*A Professional Corporation for Architecture* 475 Lincoln Street, Suite 100 Denver, Colorado 80203 303 308 0200 FAX 308 0222

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STATE OF NEW MEXICO
JOHN QUINN PATE
NO. 7784
REGISTERED ARCHITECT
6/29/07

| Issues/Revisions: | Date: |
|---|---|
| Bid Document | 6-24-07 |

Raton Aquatics Center
Raton, New Mexico

MCA Project No.: RAT 051-12

# MILLWORK DETAILS SNACK BAR

PROJECT ARCHITECT: John Quinn Pate, RA

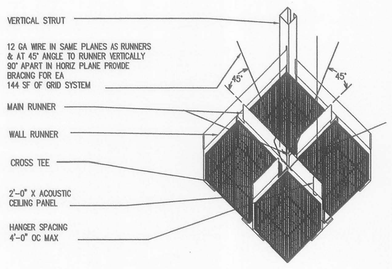
Drawn by: MCA/ SCD
Checked by: JQP

A9.22

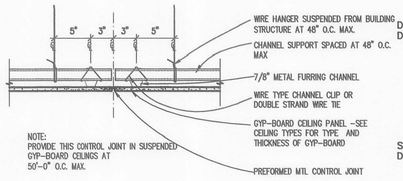
LATERAL FORCE BRACING IS REQUIRED FOR CEILINGS OVER 1,000 SF AND FOR CEILING LESS THAN 1,000 SF WHEN CEILING IS NOT SURROUNDED BY FOUR WALLS AND BRACED TO THE STRUCTURE. BRACING SHALL BE 12 FT OC AND BEGIN NO FARTHER THAN 6 FT FROM WALLS. CEILINGS WITH PLENUMS LESS THAN 12" ARE NOT REQUIRED TO HAVE LATERAL FORCE BRACING

SPLAY WIRES SHALL BE FOUR 12 GA WIRES ATTACHED TO THE MAIN BEAM AND ARRANGED AT 90° FROM EACH OTHER AND NOT EXCEEDING 45 ° FROM THE PLANE OF THE CEILING. SPLAY WIRES ARE TO BE WITHIN 2" OF THE CONNECTION OF THE VERTICAL STRUT TO THE SUSPENDED CEILING

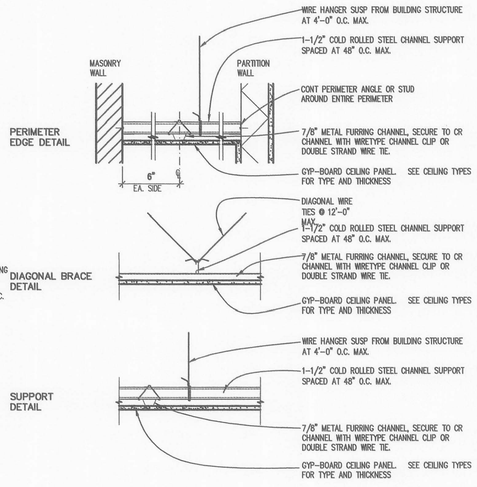
VERTICAL STRUCTS SHALL BE POSITIVELY ATTACHED TO THE SUSPENSION SYSTEM AND THE STRUCTURE ABOVE. VERTICAL STRUT SHALL BE 1/2" EMT CONDUIT OR 1-5/8" METAL STUDS FOR 6 FT HGT, 3/4" EMT FOR UP TO 8 FT HGT, 1" EMT OR 2-1/2" STUDS FOR UP TO 10 FT HGT



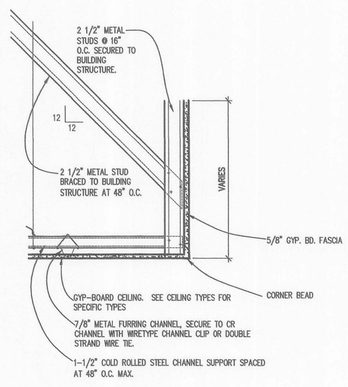

8 LATERAL FORCE BRACING
SCALE: 1-1/2" = 1'-0"




5 GYP-BOARD CEILING CONTROL JOINT
SCALE: 1-1/2" = 1'-0"




4 SUSPENSION SYSTEM @ GYP-BOARD CEILINGS
SCALE: 1-1/2" = 1'-0"




3 SOFFIT - GYP-BOARD
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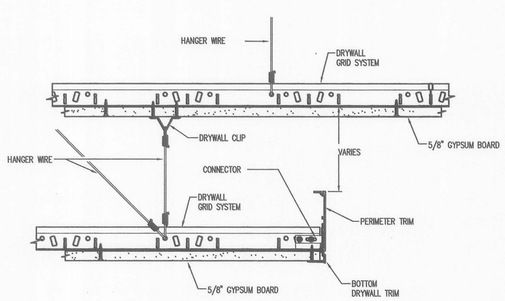
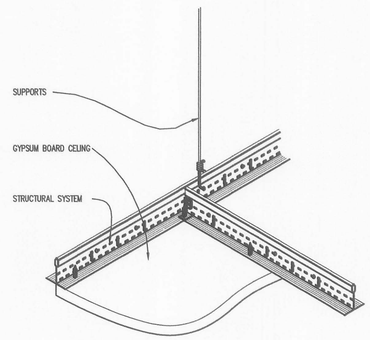
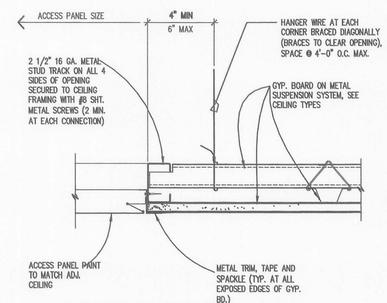


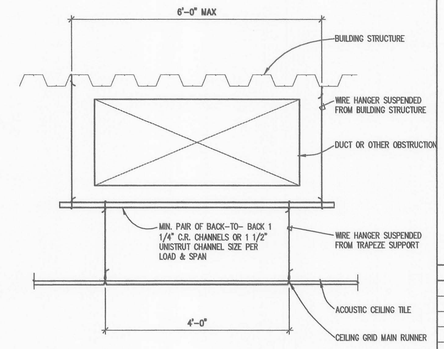

10 SUSPENDED GYPSUM CEILING
SCALE: NTS



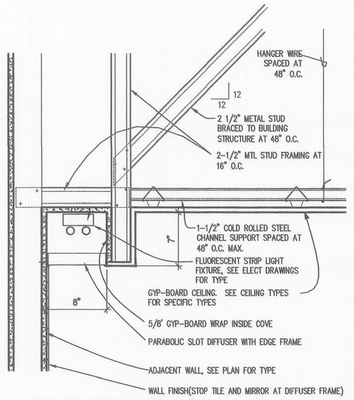

9 SUSPENDED GYPSUM CEILING
SCALE: NTS



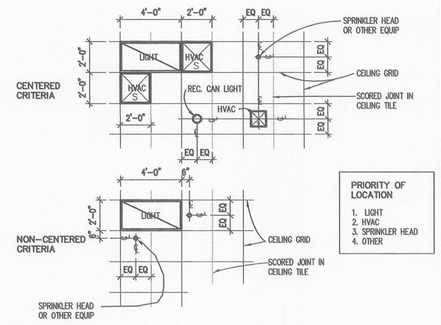

7 ACCESS PANEL @ GYP-BOARD CEILING
SCALE: 3" = 1'-0"




6 TRAPEZE @ SUSPENSION OBSTRUCTION
SCALE: 3/4" = 1'-0"




2 TOILET ROOM LIGHT COVE
SCALE: 1-1/2" = 1'-0"




NOTE:
MOUNT ALL LIGHTS, DIFFUSERS, SENSORS, SPRINKLERS ETC, ACCORDING TO THE CENTERED DIAGRAM ABOVE. WHEN CENTERED POSITIONING IS NOT POSSIBLE, USE THE NON-CENTERED DIAGRAM ABOVE.

1 LOCATION CRITERIA
SCALE: 1/4" = 1'-0"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JOHN QUINN PATE
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REGISTERED ARCHITECT
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Raton Aquatics Center
Raton, New Mexico

MCA Project No.: RAT 051-12

CEILING DETAILS

PROJECT ARCHITECT: John Quinn Pate, RA

Drawn by: MCA/ SCD
Checked by: JQP

A9.40

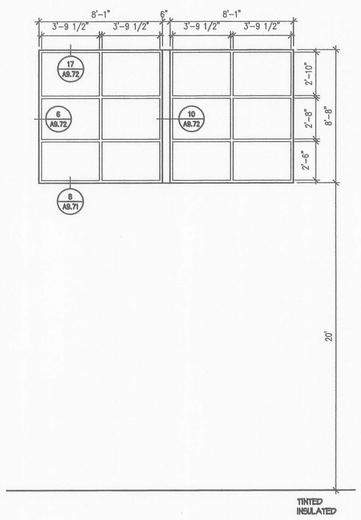
## WINDOW NOTES

1) ALL OUTSIDE DIMENSIONS ARE FOR DESIGN INTENT AND ARE TO BE FIELD VERIFIED PRIOR TO FABRICATION. WINDOW INSTALLER ASSUMES RESPONSIBILITY FOR CORRECT GLASS SIZES.

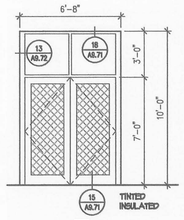
2) ALL FRAMES RECEIVE COMPRESSIBLE FILLER ROD AND SEALANT AT JAMBS.

3) NOTWITHSTANDING GLASS TYPES AND LOCATIONS INDICATED IN THE DRAWINGS, PROVIDE TEMPERED SAFETY GLASS AT ALL LOCATIONS REQUIRED BY THE APPLICABLE BUILDING CODE.

HATCH INDICATES SAFTEY GLAZING




18 ALUM. STOREFRONT WINDOW

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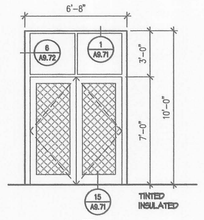


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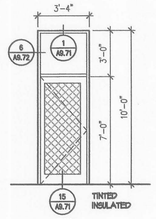


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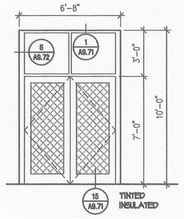


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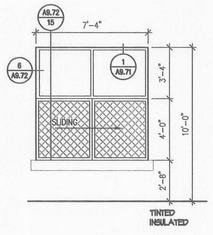


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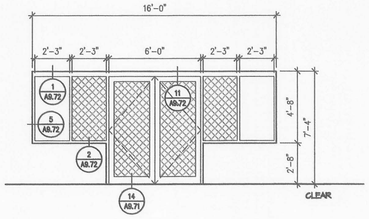


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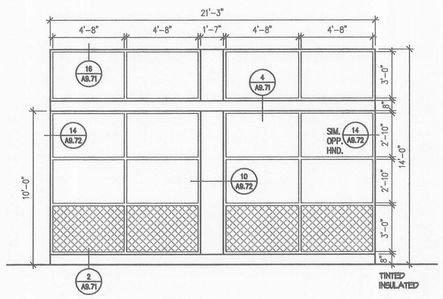


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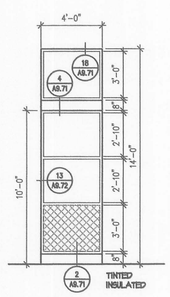


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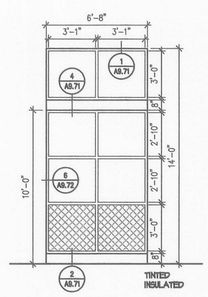


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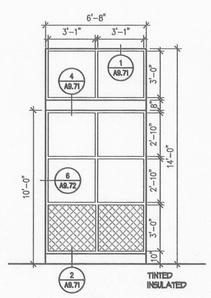


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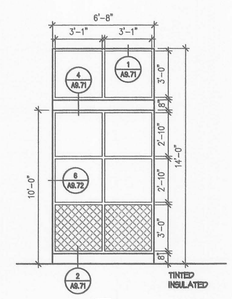


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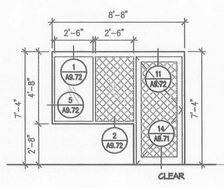


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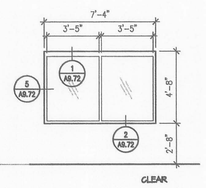


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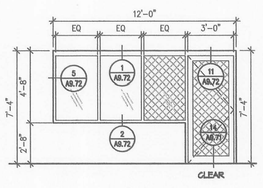


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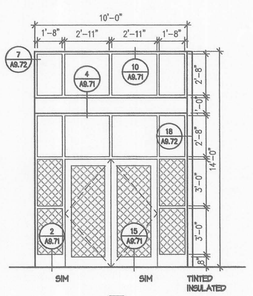


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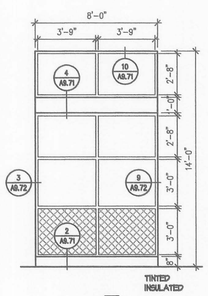


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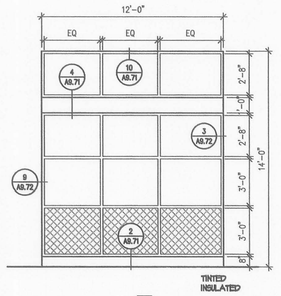


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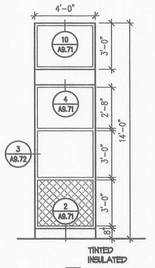


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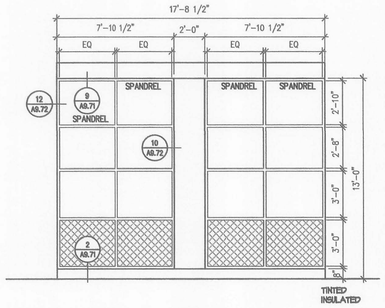


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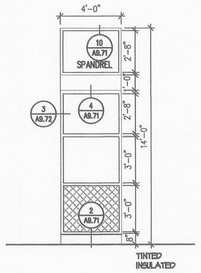


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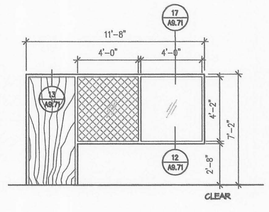


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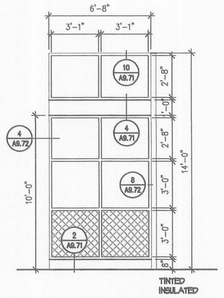


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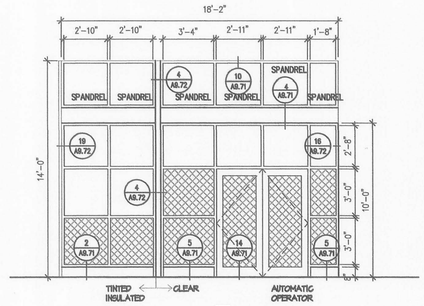


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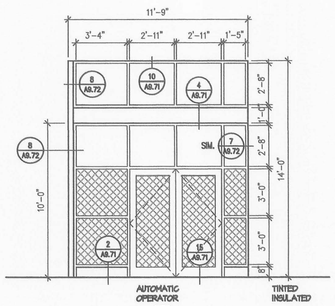


1 ALUM. STOREFRONT WINDOW

## 1 ENLARGED WINDOW FRAMES AND TYPES

SCALE: 1/4" = 1'-0"


Molzen-Corbin & Associates
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**SINK COMBS DETHLEFS**


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STATE OF NEW MEXICO
JOHN QUINN PATE
NO. 1784
REGISTERED ARCHITECT
6/29/07

| Issues/Revisions: | Date: |
|---|---|
| Bid Document | 6-24-07 |

**Raton Aquatics Center**
Raton, New Mexico

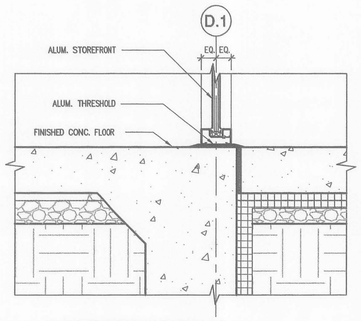
MCA Project No.: RAT 051-12

**ENLARGED WINDOW FRAMES & TYPES**

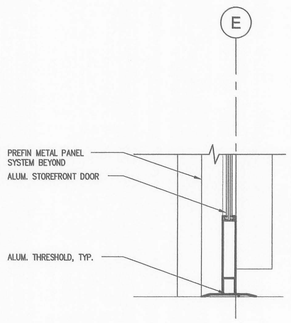
PROJECT ARCHITECT: John Quinn Pate, RA

Drawn by: MCA/ SCD
Checked by: JQP

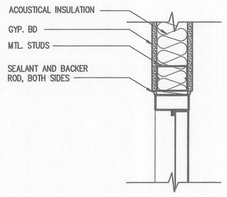
**A9.70**




15 ALUM. THRESHOLD @ SLAB
SCALE: 1 1/2" = 1'-0"




14 STOREFRONT DOOR SILL
SCALE: 1 1/2" = 1'-0"




13 ALUM. FRAME DOOR HEAD DETAIL
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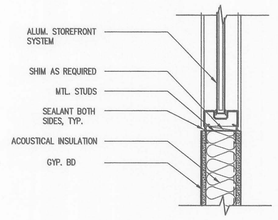
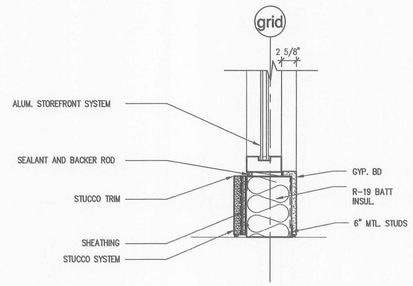


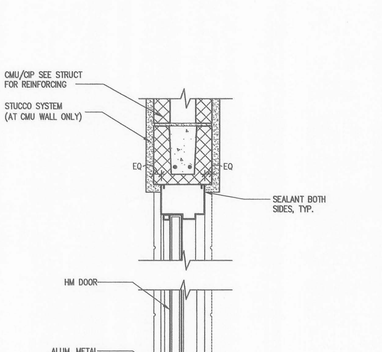

12 ALUM. HEAD & SILL @ STUD WALL (INTERNAL) W/GYP. BD
SCALE: 1 1/2" = 1'-0"



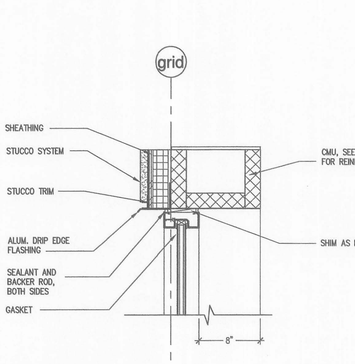

11 ALUM. SILL @ GYP.BD & STUCCO
SCALE: 1 1/2" = 1'-0"




10 ALUM. HEAD@ GYP.BD & STUCCO
SCALE: 1 1/2" = 1'-0"

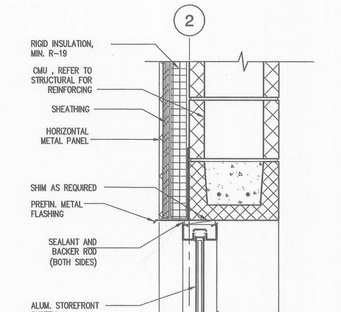



9 ALUM. HEAD @ STUD WALL W/METAL CLADDING
SCALE: 1 1/2" = 1'-0"

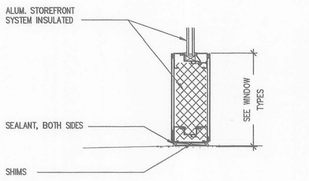



8 ALUM. SILL @ METAL PANEL
SCALE: 1 1/2" = 1'-0"

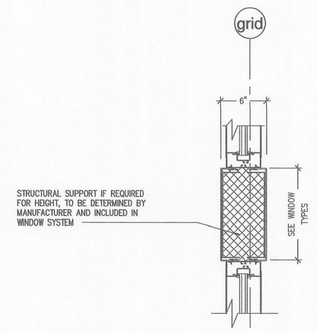
7 NOT USED
SCALE: 1 1/2" = 1'-0"



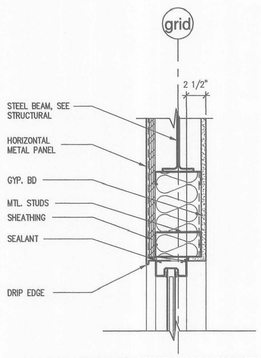

6 ALUM. HEAD@ GYP. BD ON METAL STUD WALL
SCALE: 1 1/2" = 1'-0"



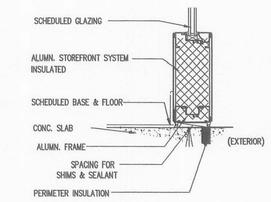

5 ALUMINUM SILL - INTERIOR
SCALE: 1 1/2" = 1'-0"



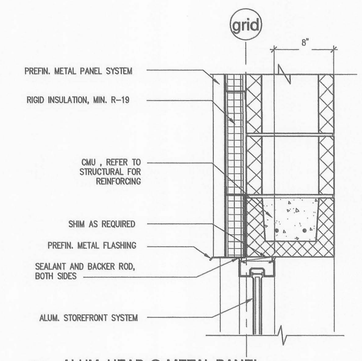

4 ALUM. HORIZ. MULLION
SCALE: 1 1/2" = 1'-0"




3 ALUM. HEAD @ STUD WALL W/ MTL.PANEL
SCALE: 1 1/2" = 1'-0"




2 ALUMINUM SILL - EXTERIOR
SCALE: 1 1/2" = 1'-0"




1 ALUM. HEAD @ METAL PANEL
SCALE: 1 1/2" = 1'-0"

Molzen-Corbin & Associates
2701 Miles Road S.E.
Albuquerque, New Mexico 87106
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fax (505) 242-0673

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A Professional Corporation for Architecture
475 Lincoln Street, Suite 100, Denver, Colorado 80203
303 306 0200
FAX 306 0222

NOTICE OF EXTENDED PAYMENT PROVISIONS: THIS CONTRACT ALLOWS THE OWNER TO MAKE PAYMENT WITHIN 45 DAYS AFTER SUBMISSION OF AN UNDISPUTED REQUEST FOR PAYMENT

STATE OF NEW MEXICO
JOHN QUINN PATE
NO. 1784
REGISTERED ARCHITECT
6/24/07

| Issues/Revisions: | Date: |
|---|---|
| Bid Document | 6-24-07 |

Raton Aquatics Center
Raton, New Mexico

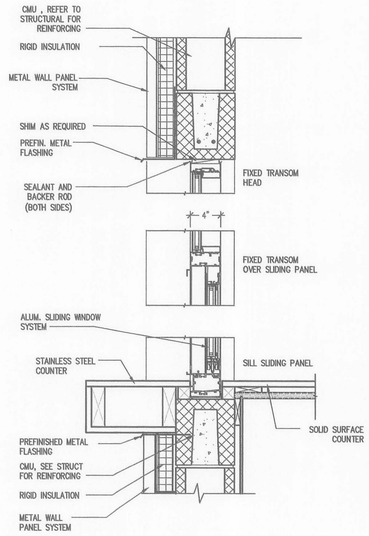
MCA Project No.: RAT 051-12

DOOR WINDOW DETAILS

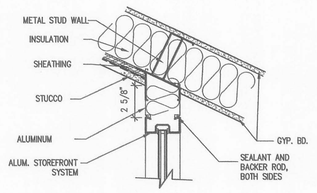
PROJECT ARCHITECT: John Quinn Pate, RA

Drawn by: MCA/ SCD
Checked by: JQP

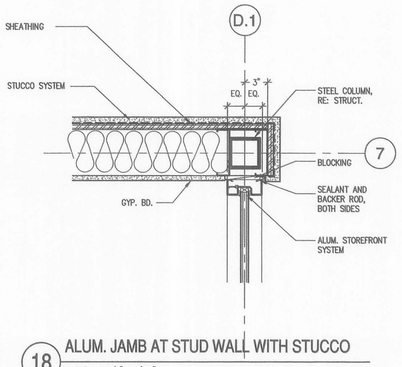
A9.71



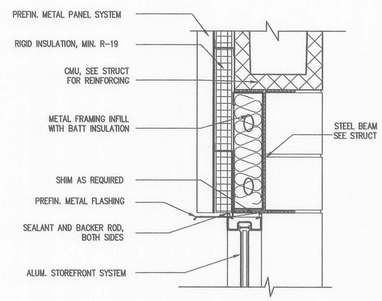

15 HORZ SLIDING WINDOW
SCALE: 1 1/2" = 1'-0"



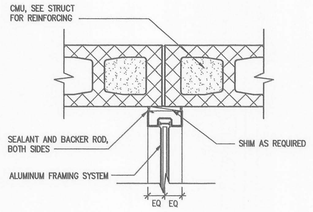

19 ALUM. JAMB AT STUD WALL WITH STUCCO
SCALE: 1 1/2" = 1'-0"



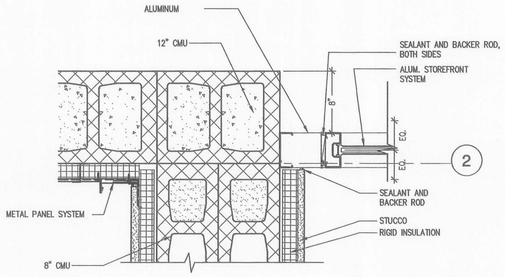

18 ALUM. JAMB AT STUD WALL WITH STUCCO
SCALE: 1 1/2" = 1'-0"



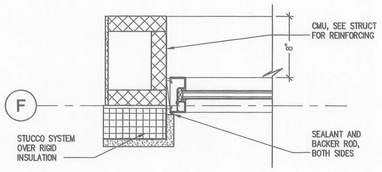

17 ALUM. HEAD @ METAL PANEL
SCALE: 1 1/2" = 1'-0"



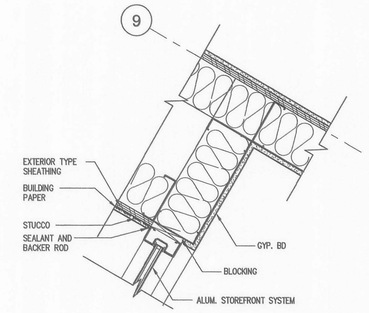

16 ALUM. JAMB AT CMU
SCALE: 1 1/2" = 1'-0"



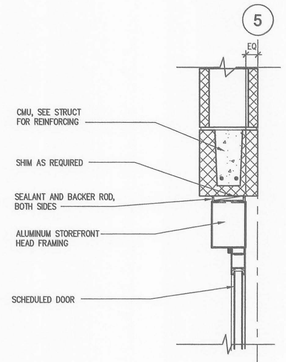

14 ALUM. JAMB AT STUCCO AND CMU
SCALE: 1 1/2" = 1'-0"



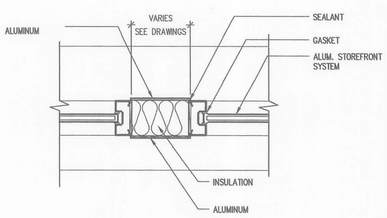

13 ALUM. JAMB AT STUCCO AND CMU
SCALE: 1 1/2" = 1'-0"



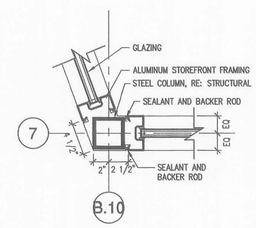

12 ALUM. JAMB DETAIL
SCALE: 1 1/2" = 1'-0"



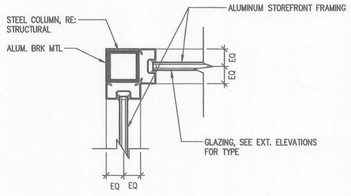

11 ALUM. HEAD @ CMU (INTERNAL)
SCALE: 1 1/2" = 1'-0"



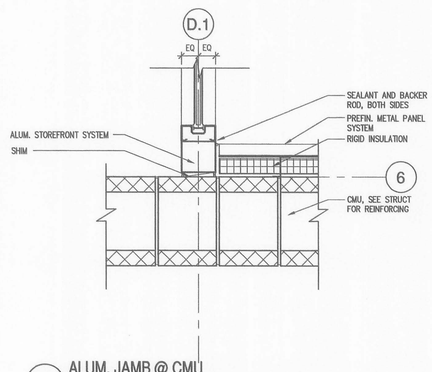

10 VERTICAL MULLION
SCALE: 1 1/2" = 1'-0"



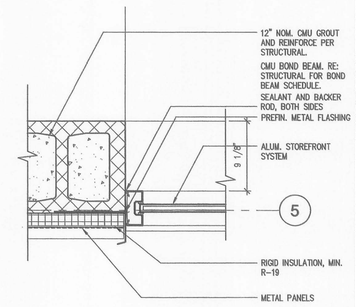

9 WINDOW CORNER
SCALE: 1 1/2" = 1'-0"



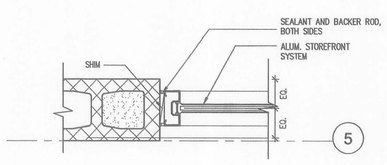

8 WINDOW CORNER
SCALE: 1 1/2" = 1'-0"



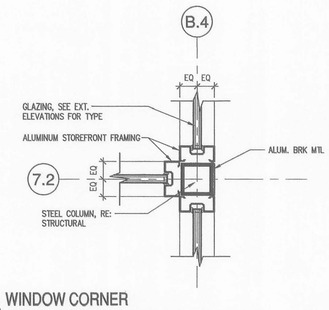

7 ALUM. JAMB @ CMU
SCALE: 1 1/2" = 1'-0"



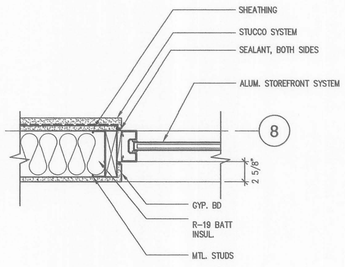

6 ALUM. JAMB @ METAL CLADDING
SCALE: 1 1/2" = 1'-0"



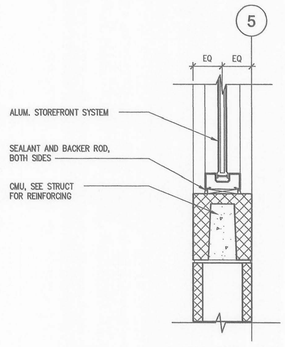

5 ALUM. JAMB @ CMU (INTERNAL)
SCALE: 1 1/2" = 1'-0"



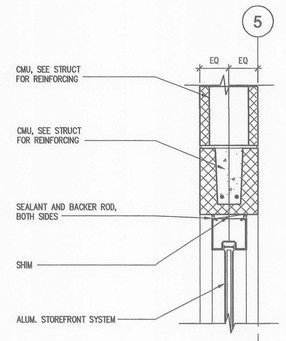

4 WINDOW CORNER
SCALE: 1 1/2" = 1'-0"




3 ALUM. JAMB @ STUCCO WALL
SCALE: 1 1/2" = 1'-0"




2 ALUM. SILL @ CMU (INTERIOR)
SCALE: 1 1/2" = 1'-0"




1 ALUM. HEAD @ CMU (INTERIOR)
SCALE: 1 1/2" = 1'-0"

Molzen-Corbin & Associates
2701 Miles Road S.E.
Albuquerque, New Mexico 87106
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fax (505) 242-0673

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A Professional Corporation for Architecture
475 Lincoln Street, Suite 100
Denver, Colorado 80203
303 308 0200
FAX 308 0222

NOTICE OF EXTENDED PAYMENT PROVISIONS. THIS CONTRACT ALLOWS THE OWNER TO MAKE PAYMENT WITHIN 45 DAYS AFTER SUBMISSION OF AN UNDISPUTED REQUEST FOR PAYMENT

STATE OF NEW MEXICO
JOHN QUINN PATE
NO. 7784
REGISTERED ARCHITECT
6/24/07

| Issues/Revisions: | Date: |
|---|---|
| Bid Document | 6-24-07 |

Raton Aquatics Center
Raton, New Mexico

MCA Project No.: RAT 051-12

DOOW WINDOW DETAILS

PROJECT ARCHITECT: John Quinn Pate, RA

Drawn by: MCA/ SCD
Checked by: JQP

A9.72

Molzen-Corbin
& Associates
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*A Professional Corporation for Architecture*
475 Lincoln Street, Suite 100
Denver, Colorado 80203
303 308 0300
FAX 308 0222

NOTICE OF EXTENDED PAYMENT PROVISION: THIS CONTRACT ALLOWS THE OWNER TO MAKE PAYMENT WITHIN 45 DAYS AFTER SUBMISSION OF AN UNDISPUTED REQUEST FOR PAYMENT

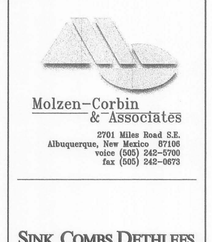



2 DOOR & FRAME TYPE
1/4" = 1'-0"

DOOR & FRAME SCHEDULE

| ROOM NUMBER | ROOM NAME | OPNG. NUM. | DOOR TYPE | DOOR MAT'L. | NOMINAL SIZE NO. | NOMINAL SIZE WID. | NOMINAL SIZE HT. | NOMINAL SIZE THKNS. | FIRE RAT'G | FRAME TYPE | FRAME MAT'L. | REMARKS |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| FIRST FLOOR | | | | | | | | | | | | |
| | EXTERIOR DECK | 001 | E | HM | 1 | 3'-0" | 7'-0" | 1 3/4" | | F1 | HM | |
| | | 002 | E | HM | 1 | 3'-0" | 7'-0" | 1 3/4" | | F1 | HM | |
| 100 | LOBBY | 100A | A | AL/GL | 2 (pr) | 3'-0" | 7'-0" | 1 3/4" | | 10 | ALUM | |
| 101 | ENTRY VESTIBULE | 101A | A | AL/GL | 2 (pr) | 3'-0" | 7'-0" | 1 3/4" | | 1 | ALUM | POWER ASSIST |
| | | 101B | A | AL/GL | 2 (pr) | 3'-0" | 7'-0" | 1 3/4" | | 2 | ALUM | POWER ASSIST |
| 103 | COMMON WORK ROOM | 103A | F | WD | 1 | 3'-0" | 7'-0" | 1 3/4" | | 4 | ALUM | |
| 104 | OFFICE | 104A | F | WD | 1 | 3'-0" | 7'-0" | 1 3/4" | | F5 | ALUM | |
| 105 | MEETING | 105A | F | WD | 1 | 3'-0" | 7'-0" | 1 3/4" | | F5 | ALUM | |
| 107 | PARTY ROOM | 107A | F | WD | 1 | 3'-0" | 7'-0" | 1 3/4" | | F4 | ALUM | |
| | | 107B | A | AL/GL | 2 (pr) | 3'-0" | 7'-0" | 1 3/4" | | 19 | ALUM | |
| | | 107C | C | AL/GL | 1 | 3'-0" | 7'-0" | 1 3/4" | | 23 | ALUM | |
| 108 | SNACK BAR | 108A | F | WD | 1 | 3'-0" | 7'-0" | 1 3/4" | | F5 | ALUM | |
| 109 | POOL STORAGE | 109A | G | WD | 2 (pr) | 3'-0" | 7'-0" | 1 3/4" | 1 HR | F3 | ALUM | 1 HR ASSEMBLY |
| 110 | MECHANICAL | 110A | F | WD | 1 | 3'-0" | 7'-0" | 1 3/4" | 1 HR | F4 | ALUM | 1 HR ASSEMBLY |
| | | 110B | D | ALUM | 2 (pr) | 3'-0" | 7'-0" | 1 3/4" | | F3 | ALUM | |
| 111 | CHEM | 111A | E | ALUM | 1 | 3'-0" | 7'-0" | 1 3/4" | | F4 | ALUM | |
| 112 | CHEM | 112A | D | ALUM | 2 (pr) | 3'-0" | 7'-0" | 1 3/4" | | F3 | ALUM | |
| 113 | POOL MECHANICAL | 113A | F | WD | 1 | 3'-0" | 7'-0" | 1 3/4" | 1 HR | F4 | ALUM | 1 HR ASSEMBLY |
| | | 113B | D | ALUM | 2 (pr) | 3'-0" | 7'-0" | 1 3/4" | | F3 | ALUM | |
| 114 | NATATORIUM | 114A | A | AL/GL | 2 (pr) | 3'-0" | 7'-0" | 1 3/4" | | 24 | ALUM | |
| | | 114B | A | AL/GL | 2 (pr) | 3'-0" | 7'-0" | 1 3/4" | | 25 | ALUM | |
| | | 114C | A | AL/GL | 2 (pr) | 3'-0" | 7'-0" | 1 3/4" | | 22 | ALUM | |
| 115 | ELECTRICAL | 115A | B | ALUM | 1 | 3'-0" | 7'-0" | 1 3/4" | | F4 | ALUM | |
| | | 115B | F | WD | 1 | 3'-0" | 7'-0" | 1 3/4" | 1 HR | F4 | ALUM | 1 HR ASSEMBLY |
| 116 | MAINTENANCE | 116A | F | WD | 1 | 3'-0" | 7'-0" | 1 3/4" | | F4 | ALUM | |
| 119 | MENS LOCKER ROOM | 119A | F | WD | 1 | 3'-0" | 7'-0" | 1 3/4" | | F4 | ALUM | |
| | | 119B | F | WD | 1 | 3'-0" | 7'-0" | 1 3/4" | | F4 | ALUM | |
| 120 | FAM RR. | 120A | F | WD | 1 | 3'-0" | 7'-0" | 1 3/4" | | F4 | ALUM | |
| 121 | FAM RR. | 121A | F | WD | 1 | 3'-0" | 7'-0" | 1 3/4" | | F4 | ALUM | |
| 122 | POOL HALLWAY | 122A | H | WD | 2 (pr) | 3'-0" | 7'-0" | 1 3/4" | | F2 | ALUM | |
| 123 | POOL OFFICE | 123A | C | AL/GL | 1 | 3'-0" | 7'-0" | 1 3/4" | | 11 | ALUM | |
| 124 | AQUATICS DIR. OFFICE | 124A | C | AL/GL | 1 | 3'-0" | 7'-0" | 1 3/4" | | 12B | ALUM | |
| 127 | WOMENS LOCKER ROOM | 127A | F | WD | 1 | 3'-0" | 7'-0" | 1 3/4" | | F4 | ALUM | |
| | | 127B | F | WD | 1 | 3'-0" | 7'-0" | 1 3/4" | | F4 | ALUM | |

1 DOOR SCHEDULE




| Issues/Revisions: | Date: |
|---|---|
| Bid Document | 6-24-07 |

Raton Aquatics Center
Raton, New Mexico

MCA Project No.: RAT 051-12

DOOR/FRAME SCHEDULE

PROJECT ARCHITECT: John Quinn Pate, RA

Drawn by: MCA/ SCD
Checked by: JQP

A9.80

## CARPET – CA
SPECIFICATION SECTION 09680

| | | |
|---|---|---|
| CA–1 | MANUFACTURER | MOHAWK |
| | PATTERN | EMOTIONS |
| | COLOR | TO BE DETERMINED BY ARCHITECT |
| | SIZE | BROADLOOM |
| | CONSTRUCTION | SOLUTION DYED NYLON<br>28 oz. |
| | INSTALLATION | TO BE DETERMINED BY ARCHITECT |
| | LOCATION | COMMUNITY WORK ROOM, OFFICE, & MEETING ROOM |

| | | |
|---|---|---|
| CA–2 | MANUFACTURER | MOHAWK |
| | PATTERN | EMOTIONS |
| | COLOR | TO BE DETERMINED BY ARCHITECT |
| | SIZE | BROADLOOM WITH MOISTURE BARRIER BASE |
| | CONSTRUCTION | SOLUTION DYED NYLON<br>28 oz. |
| | INSTALLATION | TO BE DETERMINED BY ARCHITECT |
| | LOCATION | POOL OFFICE & AQUATICS DIR. OFFICE |

## FLOOR MATS – FM

| | | |
|---|---|---|
| FM–1 | MANUFACTURER | MATS INC. |
| | TYPE | DIAGONAL TILE |
| | COLOR | TO BE DETERMINED BY ARCHITECT |
| | LOCATION | VESTIBULE 101 |

## TILE – T
SPECIFICATION SECTION 09310

| | | |
|---|---|---|
| T | MANUFACTURER | CROSSVILLE |
| | TYPE | COLOR BLOX MOSAICS PRICE GROUP II |
| | COLORS | 4 COLORS SHALL BE SELECTED FROM PRICE GROUPS I AND II |
| | PATTERN | SIMPLE BORDER OR TRANSITION FROM ONE COLOR TO ANOTHER |
| | SIZE | 1/4" THICK, 3" x 3" |
| | LOCATION | LOCKER, SHOWER & TOILET WALLS AND FLOORS |

## BRUSHED & SEALED CONCRETE – BS

| | | |
|---|---|---|
| BS | TYPE | BRUSHED & SEALED CONCRETE |
| | COLOR | TO BE DETERMINED BY ARCHITECT |
| | LOCATION | POOL AREAS RE: FINISH SCHEDULE |

## STAINED & COLORED CONCRETE – SC

| | | |
|---|---|---|
| SC–1 | TYPE | STAINED & COLORED CONCRETE |
| | COLOR | TO BE DETERMINED BY ARCHITECT |
| | LOCATION | LOBBY RE: FINISH SCHEDULE |

| | | |
|---|---|---|
| SC–2 | TYPE | STAINED & COLORED CONCRETE |
| | COLOR | TO BE DETERMINED BY ARCHITECT |
| | LOCATION | PARTY ROOM |

| | | |
|---|---|---|
| SC–3 | TYPE | STAINED & COLORED CONCRETE |
| | COLOR | TO BE DETERMINED BY ARCHITECT |
| | LOCATION | RE: FINISH SCHEDULE |

## SEALED CONCRETE – S

| | | |
|---|---|---|
| S | TYPE | SEALED CONCRETE |
| | COLOR | TO BE DETERMINED BY ARCHITECT |
| | LOCATION | RE: FINISH SCHEDULE |

## RESILIENT FLOORING – RF
SPECIFICATION SECTION 09650

| | | |
|---|---|---|
| RF–1 | MANUFACTURER | ARMSTRONG |
| | TYPE | MARMORETTE |
| | COLOR | TO BE DETERMINED BY ARCHITECT |
| | LOCATION | SNACK BAR |

## RUBBER BASE – RB
SPECIFICATION SECTION 09653

| | | |
|---|---|---|
| RB–1 | MANUFACTURER | ROPPE |
| | TYPE | TS – THERMOSET VULCANIZED SBR RUBBER |
| | COLOR | TO BE DETERMINED BY ARCHITECT |
| | SIZE | 4" H X 1/8" THICK |
| | LOCATION | RE: FINISH SCHEDULE |

| | | |
|---|---|---|
| RB–2 | MANUFACTURER | ROPPE |
| | TYPE | TS – THERMOSET VULCANIZED SBR RUBBER |
| | COLOR | TO BE DETERMINED BY ARCHITECT |
| | SIZE | 4" H X 1/8" THICK |
| | LOCATION | PARTY ROOM AND SNACK BAR |

## PAINT – P
SPECIFICATION SECTION 09900

| | | |
|---|---|---|
| P–1 | MANUFACTURER | SPECIFIED |
| | COLOR | 4 COLORS SHALL BE SELECTED BY A/E |
| | LOCATION | GYP BOARD WALLS |

| | | |
|---|---|---|
| P–2 | MANUFACTURER | SPECIFIED |
| | COLOR | 1 COLOR SHALL BE SELECTED BY A/E |
| | LOCATION | GYP BOARD CEILINGS |

| | | |
|---|---|---|
| P–3 | MANUFACTURER | SPECIFIED |
| | COLOR | 3 COLORS SHALL BE SELECTED BY A/E |
| | LOCATION | CMU WALLS |

| | | |
|---|---|---|
| P–4 | MANUFACTURER | SPECIFIED |
| | COLOR | 1 COLOR SHALL BE SELECTED BY A/E |
| | LOCATION | EXPOSED METAL STRUCTURE – 1 COLOR |

| | | |
|---|---|---|
| P–5 | MANUFACTURER | SPECIFIED |
| | COLOR | 1 COLOR SHALL BE SELECTED BY A/E |
| | LOCATION | INTERIOR RAILINGS @ POOL MECHANICAL 113 |

| | | |
|---|---|---|
| P–6 | MANUFACTURER | SPECIFIED |
| | COLOR | 1 COLOR SHALL BE SELECTED BY A/E |
| | LOCATION | HOLLOW METAL FRAMES |

## CEILING SYSTEM – CL
SPECIFICATION SECTION 09511

| | | |
|---|---|---|
| ACT | MANUFACTURER | ARMSTRONG |
| | STYLE | FINE FISSURED SECOND LOOK II – NO. 1761 |
| | COLOR | WHITE |
| | SIZE | 24" x 48" x 5/8" |
| | GRID STYLE | 15/16" PRELUDE XL |
| | GRID COLOR | WHITE |
| | LOCATION | REFER TO RCP'S |

## LAMINATE – L
SPECIFICATION SECTION 06400

| | | |
|---|---|---|
| L–1 | MANUFACTURER | TO BE DETERMINED BY ARCHITECT |
| | COLOR | TO BE DETERMINED BY ARCHITECT |
| | FINISH | TEXTURED |
| | LOCATION | MILLWORK THROUGHOUT |

| | | |
|---|---|---|
| L–2 | MANUFACTURER | TO BE DETERMINED BY ARCHITECT |
| | COLOR | TO BE DETERMINED BY ARCHITECT |
| | FINISH | TEXTURED |
| | LOCATION | CONTROL DESK |

| | | |
|---|---|---|
| L–3 | MANUFACTURER | TO BE DETERMINED BY ARCHITECT |
| | COLOR | TO BE DETERMINED BY ARCHITECT |
| | FINISH | TEXTURED |
| | LOCATION | COMMON WORK ROOM |

| | | |
|---|---|---|
| L–4 | MANUFACTURER | TO BE DETERMINED BY ARCHITECT |
| | COLOR | TO BE DETERMINED BY ARCHITECT |
| | FINISH | TEXTURED |
| | LOCATION | SNACK BAR |

## SOLID SURFACE MATERIAL – SSM
SPECIFICATION SECTION 06611

| | | |
|---|---|---|
| SSM–1 | MANUFACTURER | SOLID SURFACE |
| | COLOR | TO BE DETERMINED BY ARCHITECT |
| | SIZE | 1/2" THICK |
| | EDGE | REFER TO DRAWINGS |
| | LOCATION | CONTROL DESK TRANSACTION COUNTER |

| | | |
|---|---|---|
| SSM–2 | MANUFACTURER | SOLID SURFACE |
| | COLOR | TO BE DETERMINED BY ARCHITECT |
| | SIZE | 1/2" THICK |
| | EDGE | REFER TO DRAWINGS |
| | LOCATION | MEN & WOMEN'S TOILET ROOM |

## TOILET COMPARTMENTS – TC

| | | |
|---|---|---|
| TC–1 | MANUFACTURER | HADRIAN |
| | TYPE | FLOOR MOUNTED<br>POWDER COATED STEEL |
| | COLOR | TO BE DETERMINED BY ARCHITECT |
| | LOCATION | MEN'S & WOMEN'S TOILET ROOM |

| | | |
|---|---|---|
| TC–2 | MANUFACTURER | HADRIAN |
| | TYPE | WALL MOUNTED SCREENS<br>POWDER COATED STEEL |
| | COLOR | TO BE DETERMINED BY ARCHITECT |
| | LOCATION | MEN'S TOILET ROOM |

## SOLID PLASTIC LOCKERS– PL
SPECIFICATION SECTION 10500

| | | |
|---|---|---|
| PL–1 | MANUFACTURER | BRADLEY HDPE LOCKER SYSTEMS |
| | TYPE | SOLID PLASTIC – DOUBLE TIER |
| | COLOR | TO BE DETERMINED BY ARCHITECT |
| | LOCATION | LOCKER ROOMS & POOL HALLWAY |

## WOOD – WD
SPECIFICATION SECTION 08211

| | | |
|---|---|---|
| WD1 | TYPE | WHITE BIRCH |
| | COLOR | TO BE DETERMINED BY ARCHITECT |
| | LOCATION | DOORS, GENERAL |

ABBREVIATIONS: IN ADDITION TO ABBREVIATIONS SHOWN ABOVE, THE FOLLOWING APPLY TO THE FINISH SCHEDULE
FLOOR FINISH "S" = SEALED
FLOOR FINISH "BS" = BRUSHED AND SEALED
CEILING FINISH "XS" = EXPOSED STRUCTURE

## 2 FINISH LEGEND

| Room Number | Room Name | Floor | | Base | Walls | | | | | | | | Ceiling | | Remarks |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | North | | West | | South | | East | | | | |
| | | M | F | F | M | F | M | F | M | F | M | F | M | F | |
| LOWER LEVEL | | | | | | | | | | | | | | | |
| 100 | LOBBY | C | SC–1 | RB–1 | GB | P–1 | – | – | CMU | GF CMU | – | – | XS/GB | P–2/4 | |
| 101 | ENTRY VESTIBULE | C | FM–1 | – | – | – | – | – | – | – | – | – | GB | P–2 | |
| 102 | CONTROL DESK | C | SC–1 | RB–1 | – | – | – | – | – | – | – | – | ACT/XS | P–4 | NOTE #4 |
| 103 | COMMON WORK ROOM | C | CA–1 | RB–1 | GB | P–1 | GB | P–1 | GB | P–1 | GB | P–1 | ACT | – | |
| 104 | OFFICE | C | CA–1 | RB–1 | GB | P–1 | GB | P–1 | GB | P–1 | GB | P–1 | ACT | – | |
| 105 | MEETING | C | CA–1 | RB–1 | GB | P–1 | GB | P–1 | GB | P–1 | GB | P–1 | ACT | – | |
| 106 | LOUNGE | C | SC–1 | RB–1 | GB | P–1 | GB | P–1 | – | – | GB | P–1 | XS | P–4 | |
| 107 | PARTY ROOM | C | SC–2 | RB–2 | CMU | P–3 | CMU | P–3 | CMU/GB | P–1/3 | CMU/GB | P–1/3 | XS/GB | P–2/4 | |
| 108 | SNACK BAR | C | RF–1 | RB–2 | GB | P–1 | GB | P–1 | CMU | P–3 | CMU | P–3 | ACT | – | |
| 109 | POOL STORAGE | C | S | RB–1 | CMU | P–3 | CMU | P–3 | CMU | P–3 | CMU | P–3 | XS | P–4 | |
| 110 | MECHANICAL | C | S | RB–1 | CMU | P–3 | CMU | P–3 | CMU | P–3 | CMU | P–3 | XS | P–4 | |
| 111 | CHEMICAL | C | BS | – | CMU | P–3 | CMU | P–3 | CMU | P–3 | CMU | P–3 | XS | P–4 | |
| 112 | CHEMICAL | C | BS | – | CMU | P–3 | CMU | P–3 | CMU | P–3 | CMU | P–3 | XS | P–4 | |
| 113 | POOL MECHANICAL | C | BS | – | CMU | P–3 | CMU | P–3 | CMU | P–3 | CMU | P–3 | XS | P–4 | NOTE #3 |
| 114 | NATATORIUM | C | BS | – | CMU | P–3 | CMU | P–3 | CMU | P–3 | CMU | P–3 | XS | P–4 | |
| 115 | ELECTRICAL | C | S | RB–1 | CMU | P–3 | CMU | P–3 | CMU | P–3 | CMU | P–3 | XS | P–4 | |
| 116 | MAINTENANCE | C | S | RB–1 | CMU | P–3 | CMU | P–3 | CMU | P–3 | CMU | P–3 | XS | P–4 | |
| 117 | MENS SHOWER | C | T | T | CMU | T | CMU | T | CMU | T | CMU | T | GB | P–2 | NOTE #2 |
| 118 | MENS TOILET ROOM | C | T | T | CMU | P–3 | CMU | P–3 | CMU | P–3 | CMU | P–3 | GB | P–2 | NOTE #2 |
| 119 | MENS LOCKER ROOM | C | T | T | CMU | P–3 | CMU | P–3 | CMU | P–3 | CMU | P–3 | GB | P–2 | NOTE #2 |
| 120 | FAMILY RESTROOM | C | T | T | CMU | P–3 | CMU | P–3 | CMU | P–3 | CMU | P–3 | GB | P–2 | NOTE #2 |
| 121 | FAMILY RESTROOM | C | T | T | CMU | P–3 | CMU | P–3 | CMU | P–3 | CMU | P–3 | GB | P–2 | NOTE #2 |
| 122 | POOL HALLWAY | C | BS | – | – | – | CMU | P–3 | – | – | CMU | P–3 | GB | P–2 | |
| 123 | POOL OFFICE | C | CA–2 | RB–1 | CMU | P–3 | CMU | P–3 | CMU | P–3 | CMU | P–3 | ACT | – | |
| 124 | AQUATICS DIR. OFFICE | C | CA–2 | RB–1 | CMU | P–3 | CMU | P–3 | CMU | P–3 | CMU | P–3 | ACT | – | |
| 125 | WOMENS TOILET ROOM | C | T | T | CMU | P–3 | CMU | P–3 | CMU | P–3 | CMU | P–3 | GB | P–2 | NOTE #2 |
| 126 | WOMENS SHOWER | C | T | T | CMU | T | CMU | T | CMU | T | CMU | T | GB | P–2 | NOTE #2 |
| 127 | WOMENS LOCKER ROOM | C | T | T | CMU | P–3 | CMU | P–3 | CMU | P–3 | CMU | P–3 | GB | P–2 | NOTE #2 |
| | | | | | | | | | | | | | | | |
| | | | | | | | | | | | | | | | |

NOTES:
1. REFER TO INTERIOR ELEVATIONS FOR SPECIFIC PAINT DESIGNATIONS NOT INDICATED ON THE ABOVE FINISH SCHEDULE.
2. IN LOCKER AREAS, SHOWERS, AND RESTROOMS: SEE ELEVATIONS AND 5/A–4.10 FOR ADDITIONAL TILED AREAS NOT SPECIFICALLY ADDRESSED IN FINISH SCHEDULE
3. PAINT ALL INTERIOR EXPOSED METAL.
4. SUSPENDED GRID ONLY, W/O TILES

## 1 FINISH SCHEDULE


Molzen–Corbin & Associates
2701 Miles Road S.E.
Albuquerque, New Mexico 87106
voice (505) 242–5700
fax (505) 242–0573

SINK COMBS DETHLEFS
A Professional Corporation for Architecture
475 Lincoln Street, Suite 100, Denver, Colorado 80203
303 308 0200
FAX 308 0222


NOTICE OF EXTENDED PAYMENT PROVISION: THIS CONTRACT ALLOWS THE OWNER TO MAKE PAYMENT WITHIN 45 DAYS AFTER SUBMISSION OF AN UNDISPUTED REQUEST FOR PAYMENT

STATE OF NEW MEXICO
JOHN QUINN PATE
No. 13784
REGISTERED ARCHITECT
6/24/07

| Issues/Revisions: | Date: |
|---|---|
| Bid Document | 6–24–07 |

Raton Aquatics Center
Raton, New Mexico

MCA Project No.: RAT 051–12

FINISH LEGEND

PROJECT ARCHITECT: John Quinn Pate, RA

Drawn by: MCA/ SCD
Checked by: JQP

A9.90

## GENERAL LEGEND

| ABBV. | SYMBOL | DESCRIPTION |
|---|---|---|
| G.C. | | GENERAL CONTRACTOR |
| M.C. | | MECHANICAL CONTRACTOR |
| E.C. | | ELECTRICAL CONTRACTOR |
| T.C.C. | | TEMPERATURE CONTROL CONTRACTOR |
| F.P.C. | | FIRE PROTECTION CONTRACTOR |
| A.F.F. | | ABOVE FINISHED FLOOR |
| A.F.G. | | ABOVE FINISHED GRADE |
| B.F.F. | | BELOW FINISHED FLOOR |
| B.F.G. | | BELOW FINISHED GRADE |
| N.I.C. | | NOT IN CONTRACT |
| | | CONTROL WIRING |
| AD/AP | | ACCESS DOOR/ACCESS PANEL |
| | | DIRECTION OF FLOW IN PIPE |
| | | PITCH PIPE DOWN IN DIRECTION OF ARROW |
| | | PIPE CAP |
| | | PIPE UNION |
| | | BALL VALVE |
| TCV | | (2 OR 3-WAY) TEMPERATURE CONTROL VALVE |
| | | PIPE ELBOW DOWN |
| | | PIPE ELBOW UP |
| | | TEE OFF BOTTOM OF PIPE |
| | | TEE OFF TOP OF PIPE |
| | | THERMOMETER |

## HVAC LEGEND

| ABBV. | SYMBOL | DESCRIPTION |
|---|---|---|
| PHWS | PHWS | POOL HEATING WATER SUPPLY |
| PHWR | PHWR | POOL HEATING WATER RETURN |
| MCD | M | MOTORIZED CONTROL DAMPER |
| | B | BACKDRAFT DAMPER |
| MVD | | MANUAL VOLUME DAMPER |
| | T | THERMOSTAT |
| | T | TEMPERATURE SENSOR |
| | S | SMOKE DETECTOR |
| | | SUPPLY DUCT UP/SUPPLY DUCT DOWN |
| | | RETURN/EXHAUST DUCT UP/RETURN/EXHAUST DUCT DOWN |
| | | ROUND DUCT UP / DOWN |
| | | DUCT ELBOW WITH TURNING VANES |
| | | SQUARE TO ROUND TRANSITION |
| | UP DN | OFFSET DUCT UP / DOWN IN DIRECTION OF ARROW |
| | | CONICAL SPIN-IN FITTING WITH MANUAL VOLUME DAMPER |
| | | CONICAL SPIN-IN FITTING WITHOUT MANUAL VOLUME DAMPER |
| | | 45° TAKEOFF |
| | | STANDARD RADIUS ELBOW |
| | 10x8 | NEW DUCT - WIDTH x DEPTH |
| CD | | CEILING DIFFUSER (FOUR WAY THROW PATTERN) |
| CD | EQUALS | CEILING DIFFUSER WITH FLOW PATTERN INDICATION (TWO WAY) |
| CD | EQUALS | CEILING DIFFUSER WITH FLOW PATTERN INDICATION (ONE WAY) |
| CD | EQUALS | CEILING DIFFUSER WITH FLOW PATTERN INDICATION (THREE WAY) |
| CD | EQUALS | CEILING DIFFUSER WITH FLOW PATTERN INDICATION (TWO WAY) |
| RG/EG | | RETURN OR EXHAUST REGISTER OR GRILLE |
| | | RETURN GRILLE WITH SOUND BOOT |
| | | FLEXIBLE DUCTWORK |
| | | AIRFLOW - RETURN/EXHAUST |
| | | AIRFLOW - SUPPLY |
| | | POINT OF CONNECTION TO POOL PIPING |
| RTU | | ROOFTOP UNIT |
| FCU | | FAN COIL UNIT |
| ACCU | | AIR-COOLED CONDENSING UNIT |
| EF | | EXHAUST FAN |
| UH | | UNIT HEATER |
| CUH | | CABINET UNIT HEATER |
| B | | BOILER |
| P | | PUMP |
| LVR | | LOUVER |
| PDU | | POOL DEHUMIDIFICATION UNIT |
| CD | | CEILING DIFFUSER |
| SR | | SUPPLY REGISTER |
| SG | | SUPPLY GRILLE |
| RG | | RETURN GRILLE |
| ER | | EXHAUST REGISTER |
| EG | | EXHAUST GRILLE |
| TG | | TRANSFER GRILLE |
| SA | | SUPPLY AIR |
| RA | | RETURN AIR |
| EA | | EXHAUST AIR |
| OA | | OUTSIDE AIR |
| TA | | TRANSFER AIR |

## PLUMBING LEGEND

| ABBV. | SYMBOL | DESCRIPTION |
|---|---|---|
| DF | | DRINKING FOUNTAIN |
| ES | | EMERGENCY SHOWER |
| EEW | | EMERGENCY EYE WASH |
| EWC | | ELECTRIC WATER COOLER |
| GDU | | GARBAGE DISPOSAL UNIT |
| L | | LAVATORY |
| MSB | | MOP SERVICE BASIN |
| S | | SINK |
| SH | | SHOWER |
| TP/TG | | TRAP PRIMER/TRAP GUARD |
| U | | URINAL |
| WC | | WATER CLOSET |
| WHA | | WATER HAMMER ARRESTER |
| TMV | | THERMOSTATIC MIXING VALVE |
| PP | | PLUMBING CIRC. PUMP |
| SP | | SUMP PUMP |
| SE | | SEWAGE EJECTOR |
| PET | | PLUMBING EXPANSION TANK |
| RPBP | | REDUCED PRESSURE BACKFLOW PREVENTER |
| DCBP | | DOUBLE CHECK BACKFLOW PREVENTER |
| CW | | DOMESTIC COLD WATER |
| HW | | DOMESTIC HOT WATER |
| HWC | | DOMESTIC HOT WATER CIRCULATING |
| F | F | FIRE LINE |
| FS | FS | FIRE SPRINKLER |
| FSP | | FIRE STANDPIPE |
| W | | SANITARY WASTE BELOW FLOOR |
| W | | SANITARY WASTE ABOVE FLOOR |
| V | | SANITARY VENT |
| RDL | RDL | ROOF DRAIN ABOVE FLOOR OR GRADE |
| ODL | ODL | OVERFLOW DRAIN LEADER ABOVE FLOOR OR GRADE |
| SD | | STORM DRAIN BELOW FLOOR OR GRADE |
| D | D | DRAIN PIPING |
| LS | LS | LAWN SPRINKLER |
| FCO | | FLOOR CLEANOUT |
| GCO | | GRADE CLEANOUT |
| WCO | OR / OR | WALL CLEANOUT |
| | | PRESSURE REDUCING VALVE |
| | | HOSE END DRAIN VALVE |
| | | PLUG VALVE |
| | | GAS COCK |
| | | THERMOSTATIC MIXING VALVE |
| | | PIPE GUIDE |
| | | SHOCK ABSORBER (ELEVATION) WATER HAMMER ARRESTOR |
| | | SHOCK ABSORBER (PLAN) WATER HAMMER ARRESTOR |
| | | PIPE ANCHOR |
| HB/WH | OR | HOSE BIBB/WALL HYDRANT |
| | F | FLOW SWITCH |
| VTR | | VENT THRU ROOF |
| AD | | AREA DRAIN |
| FD | | FLOOR DRAIN |
| FS | | FLOOR SINK |
| RD/OD | | ROOF DRAIN/OVERFLOW DRAIN |
| | | SPLASH BLOCK |
| | | SPLASH BLOCK WITH DOWNSPOUT NOZZLE |
| | | GAUGE |
| | | PRESSURE GAUGE WITH COCK |
| CV | | CHECK VALVE |
| | | GLOBE VALVE |

## MECHANICAL DRAWING INDEX

| DRAWING NUMBER | MECHANICAL DRAWING DESCRIPTION | DRAWING SCALE |
|---|---|---|
| MP.00 | MECHANICAL COVER SHEET, LEGEND AND DRAWING INDEX | NONE |
| M2.10 | FIRST FLOOR HVAC PLAN | 1/8" |
| M2.20 | ROOF HVAC PLAN | 1/8" |
| M3.00 | ENLARGED SCALE HVAC PLANS AND SECTIONS | AS SHOWN |
| M4.00 | HVAC SCHEDULES | NONE |
| M5.00 | HVAC DETAILS | NONE |

| DRAWING NUMBER | PLUMBING/FIRE PROTECTION DRAWING DESCRIPTION | DRAWING SCALE |
|---|---|---|
| P2.10 | FIRST FLOOR PLUMBING PLAN | 1/8" |
| P2.20 | ROOF PLUMBING PLAN | 1/8" |
| P3.00 | ENLARGED SCALE PLUMBING PLANS | 1/4" |
| P4.00 | PLUMBING SCHEDULES | NONE |
| P5.00 | PLUMBING DETAILS | NONE |
| P6.00 | PLUMBING ISOMETRICS | NONE |

## HVAC GENERAL NOTES:

1. CONTRACTOR SHALL INSPECT SITE TO THOROUGHLY FAMILIARIZE HIMSELF WITH THE AREA OF WORK. THESE DOCUMENTS DO NOT REFLECT AS-BUILT CONDITIONS. ANY DISCREPANCIES BETWEEN THESE DOCUMENTS AND ACTUAL CONDITIONS SHALL BE REPORTED TO THE ARCHITECT/ENGINEER FOR RESOLUTION PRIOR TO BID PRICING. NO EXTRAS WILL BE ALLOWED DUE TO LACK OF KNOWLEDGE OF EXISTING CONDITIONS.
2. DUCTWORK DIMENSIONS SHOWN REPRESENT CLEAR INSIDE DUCT DIMENSIONS. ALL RECTANGULAR AND ROUND SUPPLY AND RETURN AIR DUCTWORK SHALL BE SHEET METAL AND LINED WITH 1" DUCT LINER. EXHAUST AIR DUCTWORK SHALL BE SHEET METAL AND UNLINED. NATATORIUM RETURN AIR DUCTWORK SHAL BE ALUMINUM SHEET METAL AND UNLINED.
3. ALL DUCTWORK SHALL BE SEALED AIRTIGHT WITH DUCT SEALANT (SMACNA SEAL CLASS "A") AND SHALL CONFORM TO LOCAL BUILDING CODES.
4. FLEXIBLE DUCTWORK SHALL BE INSULATED AND SHALL BE THE SAME SIZE AS THE NECK OF THE DIFFUSER. FLEX DUCT SHALL NOT EXCEED 8'-0" IN LENGTH AND SHALL CONFORM TO LOCAL BUILDING CODES.
5. ALL SPIN-IN FITTINGS SHALL BE CONICAL AND SHALL HAVE MANUAL VOLUME DAMPERS.
6. RECTANGULAR BRANCH DUCT TAKEOFFS SHALL HAVE 45° TAKEOFFS AND ROUND DUCT TAKEOFFS SHALL BE CONICAL.
7. ALL ELBOWS, BOTH HORIZONTAL AND VERTICAL, SHALL BE LONG RADIUS ELBOWS WHEREVER POSSIBLE, OR SHALL HAVE TURNING VANES WHERE SHOWN.
8. BALANCE AIR SYSTEM TO QUANTITIES SHOWN, AND SUBMIT A MINIMUM OF (6) COPIES OF THE BALANCE REPORT TO THE ENGINEER FOR REVIEW.
9. ALL FRESH AIR INTAKES SHALL BE A MINIMUM OF 10'-0" FROM ANY EXHAUST OR FLUE OUTLETS, PLUMBING VENTS, ETC... PER LOCAL BUILDING CODE REQUIREMENTS.
10. PROVIDE FLEXIBLE CONNECTION ON INTAKE AND DISCHARGE OF MECHANICAL EQUIPMENT. FLEX CONNECTION SHALL CONFORM TO LOCAL BUILDING CODE PROVISIONS.
11. WHERE CEILING SPACE IS USED AS A RETURN AIR PLENUM. CONFORM WITH APPLICABLE BUILDING CODE PROVISIONS. GENERAL CONTRACTOR/MECHANICAL CONTRACTOR TO VERIFY THAT RETRUN AIR PATHS ARE OPEN BACK TO THE UNIT, NOTIFY ENGINEER OF ANY DISCREPANCIES.
12. CONTRACTOR TO PROVIDE TRANSITION TO COILS, FANS OR OTHER EQUIPMENT.
13. ALL DUCTWORK VISIBLE THROUGH RETURN AIR GRILLES IS TO BE PAINTED FLAT BLACK.
14. ALL EXTERIOR AND ROOF MOUNTED DUCTWORK SHALL BE PROVIDED WITH 1" DUCT LINER, 1-1/2" DUCT WRAP AND AN ALUMINUM ALL WEATHER JACKETING.
15. ALL FINAL ACCESS DOOR LOCATIONS SHALL BE APPROVED BY ARCHITECT PRIOR TO INSTALLATION.
16. ALL JOB SITE DUCTWORK SHALL BE COVERED AND PROTECTED FROM DIRT, DUST AND DAMAGE PER SMACNA STANDARDS.
17. MECHANICAL WORK SHALL COMPLY WITH ALL APPLICABLE CODES. VERIFY ALL REQUIREMENTS PRIOR TO SUBMITTING BID OR COMMENCING WORK.
18. ELECTRICAL TO PROVIDE 120 VOLT 20 AMP CIRCUITS AND ONE PHONE CONNECTION FOR THE DDC CONTROL SYSTEM. AT LEAST ONE 20 AMP CIRCUIT SHALL BE LOCATED IN EACH OF THE FOLLOWING AREAS; MECHANICAL ROOM 110, IN THE CEILING SPACE FOR SERVICE TO THE ROOFTOP UNITS AND IN THE ROOM HOUSING THE DDC COMPUTER. THE PHONE CONNECTION SHALL BE LOCATED IN THE ROOM HOUSING THE DDC COMPUTER. EXACT CIRCUIT LOCATIONS SHALL BE COORDINATED WITH THE TEMPERATURE CONTROLS CONTRACTOR. THE LOCATION OF THE DDC COMPUTER SHALL BE COORDINATED WITH THE OWNER.
19. REFER TO ARCHITECTURAL REFLECTED CEILING PLANS FOR EXACT LOCATION OF ALL CEILING AIR DEVICES AND ACCESS PANELS. OBTAIN CLARIFICATION FROM THE ARCHITECT, IF EXACT LOCATIONS ARE NOT SHOWN.
20. REFER TO ARCHITECTURAL DRAWINGS FOR ROOFING DETAILS SPECIFIC TO THIS PROJECT.
21. THE MECHANICAL SYSTEMS SHOWN SHALL BE RUN AS HIGH AS POSSIBLE. THE MECHANICAL CONTRACTOR SHALL BE RESPONSIBLE FOR COORDINATING SPACE REQUIREMENTS WITH ALL TRADES PRIOR TO INSTALLATION.
22. COORDINATE THERMOSTAT, SENSOR AND SWITCH LOCATIONS WITH ARCHITECT PRIOR TO INSTALLATION.
23. MAINTAIN A MINIMUM 3'-0" SEPARATION FROM EXHAUST TERMINATION TO OPERABLE WINDOWS AND DOORS.
24. COORDINATE LOUVER, WALL CAP AND AIR DEVICE PLACEMENT WITH BRICK OR BLOCK COURSING WHERE APPLICABLE.
25 COORDINATE THE LOCATION AND ELEVATION OF ALL EXPOSED DUCTWORK WITH THE ARCHITECT AT THE JOB SITE.

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NOTICE OF EXTENDED PAYMENT PROVISION: THIS CONTRACT ALLOWS THE OWNER TO MAKE PAYMENT WITHIN 45 DAYS AFTER SUBMISSION OF AN UNDISPUTED REQUEST FOR PAYMENT

STEVEN D. FRANZ
NEW MEXICO
16516
LICENSED PROFESSIONAL ENGINEER

| Issues/Revisions: | Date: |
|---|---|
| Bid Document | 6-24-07 |

Raton Aquatics Center
Raton, New Mexico

MCA Project No.: RAT 051-12

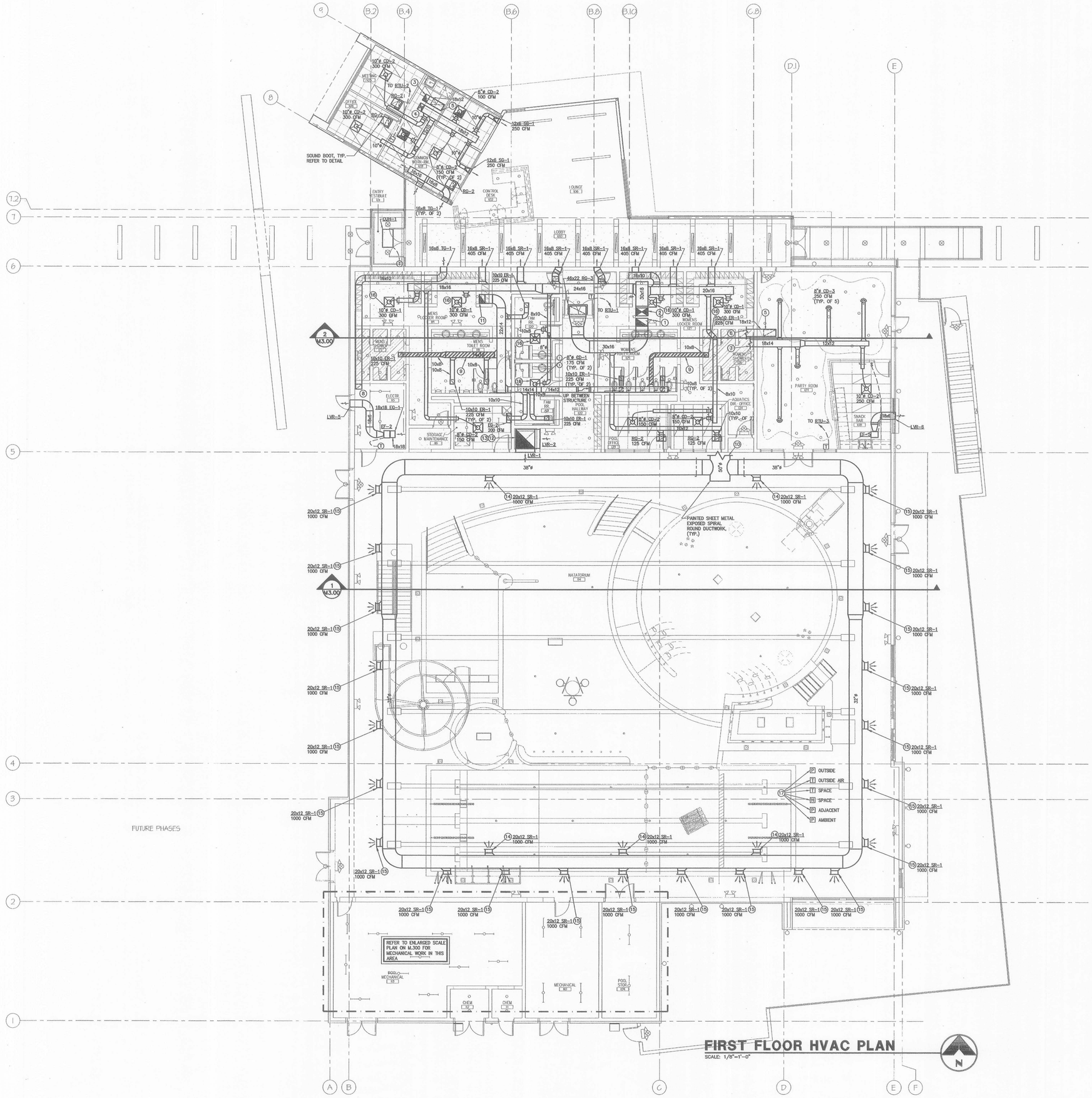
# MECHANICAL COVER SHEET,LEGEND AND DRAWING INDEX

PROJECT ARCHITECT: John Quinn Pate, RA

Drawn by: BAB/TRH
Checked by: SDF/TRH

MP.00

PLOT DATE: June 25, 2007 @ 10:59am
FILE LOCATION: N:\06141\MP-00.dwg; LAYOUT NAME: MP.00




## FIRST FLOOR HVAC PLAN

SCALE: 1/8"=1'-0"

### HVAC KEYNOTES:

1. 20"x30" RA DUCT UP THROUGH ROOF TO RTU-1
2. TRANSITIONAL ELBOW WITH TURNING VEINS FROM 30"x18" SA TO 30"x20" SA. 30"x20" SA DUCT UP THROUGH ROOF TO RTU-1
3. 18"x12" RA DUCT UP THROUGH ROOF TO RTU-2
4. 18"x12" SA DUCT UP THROUGH ROOF TO RTU-2
5. 30"x16" RA OPENING IN TOP OF DUCT.
6. 18"x12" RA DUCT THROUGH EXTERIOR WALL TO MECHANICAL WELL. REFER TO ROOF PLAN ON SHEET M2-20 FOR CONTINUATION.
7. 18"x12" SA DUCT THROUGH EXTERIOR WALL TO MECHANICAL WELL. REFER TO ROOF PLAN ON SHEET M2-20 FOR CONTINUATION.
8. 16"x12" RETURN AIR OPENING MOUNTED 24" A.F.F
9. SHADING INDICATES EXTENT OF ALUMINUM DUCTWORK. SLOPE DUCTWORK DOWN TOWARDS EXHAUST REGISTER AT 1/4" PER LINEAR FOOT.
10. 50"ø SA DUCT THROUGH EXTERIOR WALL TO MECHANICAL WELL. REFER TO ROOF PLAN ON SHEET M2.20 FOR CONTINUATION.
11. 22"x14" EA DUCT UP THROUGH ROOF TO EF-1 USING A LONG RADIUS ELBOW. TRANSITION TO FAN CONNECTION IN RISE.
12. 48"x48" RA AIR UP THROUGH ROOF. INSTALL LVR-1 AND LVR-2 FROM DUCT WITH BOTTOM AT 12" A.F.F.
13. ENTIRE POOL RA DUCT SHALL BE CONSTRUCTED WITH UNLINED ALUMINUM SHEET METAL.
14. ONE SR-1 SUPPLY REGISTER DISCHARGING HORIZONTALLY.
15. ONE SR-1 SUPPLY REGISTER DISCHARGING DOWNWARD AT A 30° ANGLE FROM HORIZONTAL.
16. PROVIDE CEILING DIFFUSER WITH A RAPID MOUNT FRAME. BALANCING DAMPER AND FLEX DUCT CONNECTIONS SHALL BE ACCESSIBLE THROUGH THE CEILING DIFFUSER.
17. OUTDOOR PRESSURE SENSOR, OUTSIDE AIR TEMPERATURE. NATATORIUM SPACE TEMPERATURE, NATATORIUM SPACE HUMIDITY, ADJACENT SPACE PRESSURE DIFFERENTIAL, AND AMBIENT PRESSURE DIFFERENTIAL PRESSURE SENSORS. PROVIDE TYPE AND QUANTITY OF SENSORS AS RECOMMENDED BY PDU-1 MANUFACTURER. COORDINATE LOCATIONS OF SENSORS WITH WITH ARCHITECT AND PDU-1 MANUFACTURER PRIOR TO INSALLATION.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STEVEN D. FRANEY
NEW MEXICO
10616
6-25-07
LICENSED PROFESSIONAL ENGINEER

| Issues/Revisions: | Date: |
|---|---|
| Bid Document | 6-24-07 |

Raton Aquatics Center
Raton, New Mexico

MCA Project No.: RAT 051-12

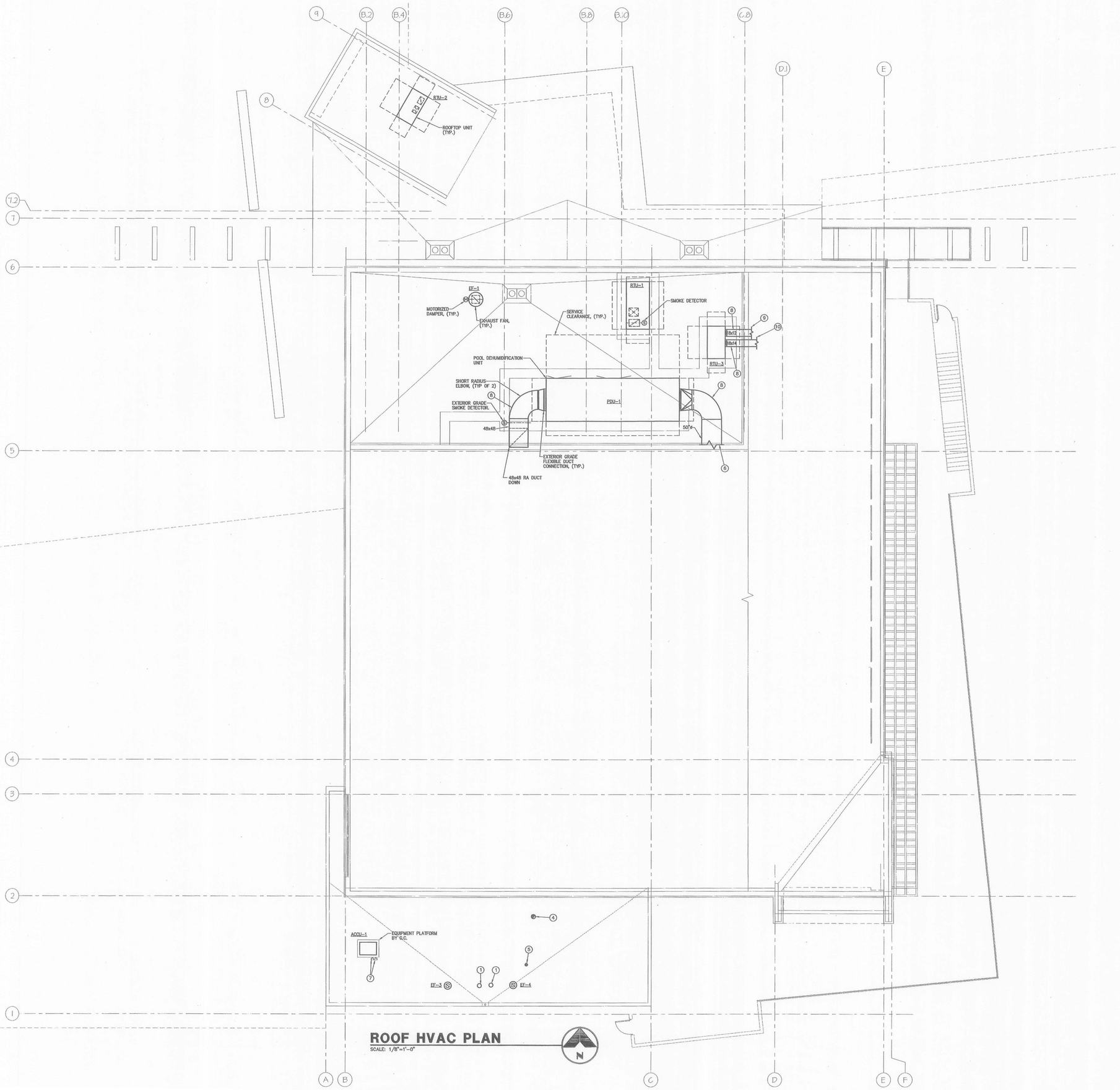
FIRST FLOOR
HVAC PLAN

PROJECT ARCHITECT: John Quinn Pate, RA

Drawn by: BAB/DJB
Checked by: SDF

M2.10


PLOT DATE: June 25, 2007 @ 11:00am
FILE LOCATION: N:\DWG\RAT-051\Dwg LAYOUT NAME: M2.10




## ROOF HVAC PLAN

SCALE: 1/8"=1'-0"

## HVAC KEYNOTES:

1. 10" PVC VENTILATION AIR DUCT FROM BELOW. TERMINATE WITH APPROVED PVC INTAKE CAP. AIR INTAKE SHALL BE 3' ABOVE THE ROOF. SEE M3.0 FOR CONTINUATION.
2. 54"x60" RA DUCT THROUGH WALL INTO LOCKER ROOM. REFER TO M2-10 FOR CONTINUATION.
3. 50"ø SA DUCT THROUGH WALL INTO LOCKER ROOM. REFER TO M2-10 FOR CONTINUATION.
4. 10"ø TYPE "B" VENT. TERMINATE WITH MANUFACTURERS' VERTICAL ROOFTOP CAP. TERMINATION SHALL BE 3' ABOVE THE ROOF
5. 8"ø AL29-4C VENT. TERMINATE WITH MANUFACTURERS' VERTICAL ROOFTOP CAP. TERMINATION SHALL BE 3' ABOVE THE ROOF.
6. 50"ø SA DUCT. REFER TO FIRST FLOOR HVAC PLAN ON SHEET M2.10 FOR CONTINUATION.
7. DX REFRIGERANT PIPING DOWN THROUGH ROOF TO FCU-1. INSTALL ALL PIPING IN ACCORDANCE WITH MANUFACTURERS RECOMMENDATIONS. REFER TO ARCHITECTURAL DRAWINGS FOR FLASHING DETAILS.
8. PROVIDE PITCH POCKETS AND DUCT STANDS PER SMACNA STANDARDS. MAINTAIN CODE REQUIRED CLEARANCES FROM BOTTOM OF DUCT TO ROOF.
9. 18x12 RA DUCT. REFER TO FIRST FLOOR HVAC PLAN ON SHEET M2.10 FOR CONTINUATION.
10. 18x14 SA DUCT. REFER TO FIRST FLOOR HVAC PLAN ON SHEET M2.10 FOR CONTINUATION.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STEVEN D. FRANZ — NEW MEXICO — 21016 — REGISTERED PROFESSIONAL ENGINEER

| Issues/Revisions: | Date: |
|---|---|
| Bid Document | 6-24-07 |

Raton Aquatics Center
Raton, New Mexico

MCA Project No.: RAT 051-12

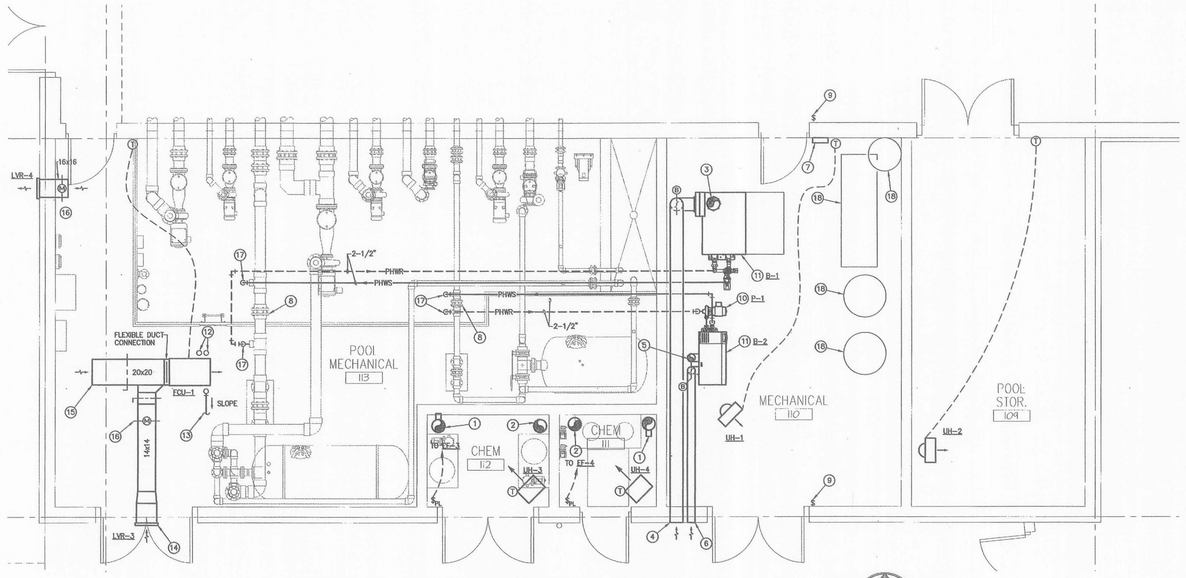
ROOF HVAC PLAN

PROJECT ARCHITECT: John Quinn Pate, RA

Drawn by: BAB/DJB
Checked by: SDF

M2.20


DT DATE: June 25, 2007 @ 11:01am
LT LOCATION: N:\DWG\M2\M2-20.dwg LAYOUT NAME: M2.20

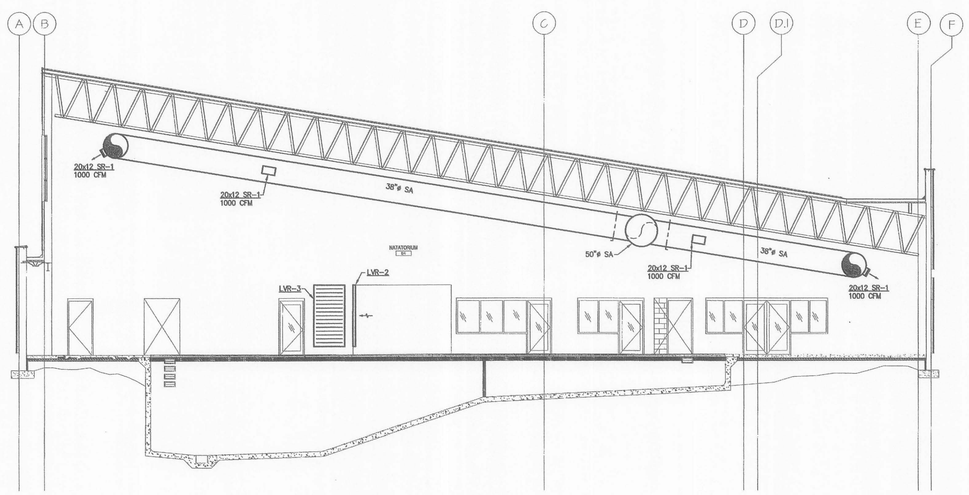



## ENLARGED SCALE MECHANICAL ROOM PLAN

SCALE: 1/4"=1'

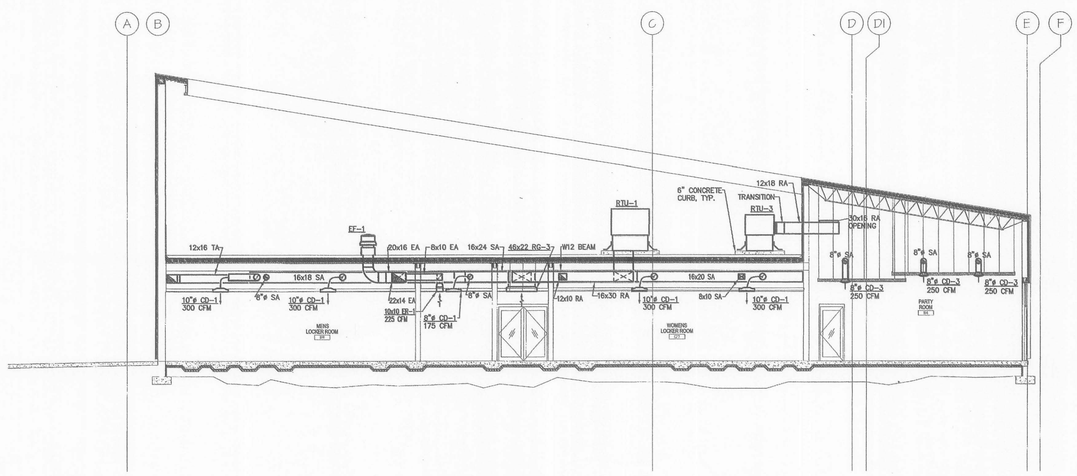
### HVAC KEYNOTES:

1. 10"ø PVC UP TO EF-3 AND EF-4. EXTEND PVC DOWN TO 6" A.F.F. PROVIDE 4"ø PVC TAKE-OFF 12" BELOW STRUCTURE. REFER TO DETAIL. SEE M2.20 FOR CONTINUATION.
2. 10"ø PVC VENTILATION AIR DUCT UP THROUGH ROOF. EXTEND 6" BELOW STRUCTURE IN TO ROOM. SEE M2.20 FOR CONTINUATION.
3. 10"ø TYPE "B" EXHAUST VENT UP THROUGH ROOF TO MANUFACTURERS' ROOF TERMINATION. TERMINATION SHALL BE 3' ABOVE THE INLET CAP.
4. INSULATED 10"ø TYPE "B" COMBUSTION AIR VENT TO MANUFACTURERS SIDEWALL INLET CAP.
5. 6"ø AL29-4C EXHAUST VENT UP THROUGH ROOF TO MANUFACTURERS' ROOF TERMINATION. TERMINATION SHALL BE 3' ABOVE THE INLET CAP.
6. INSULATED 6"ø TYPE "B" COMBUSTION AIR VENT TO MANUFACTURERS SIDEWALL INLET CAP.
7. BUILDING DDC CONTROLLER INSTALLED ON WALL 48" A.F.F.
8. VALVE REFER TO DETAIL ON M5.0 FOR DETAILS. VALVE BY AQUATICS.
9. REMOTE DISCONNECT SWITCH FOR BOILER CONTROLS. SWITCH TO DISABLE ALL GAS FIRED EQUIPMENT. LABEL SWITCH "EMERGENCY POWER OFF SWITCH" REFER TO SPECIFICATION FOR ADDITIONAL REQUIREMENTS.
10. BASE MOUNTED POOL PUMP MOUNTED ON 6" CONCRETE HOUSEKEEPING PAD.
11. POOL / SPA HEATER MOUNTED ON 6" CONCRETE HOUSEKEEPING PAD.
12. DX REFRIGERANT UNIT PIPING TO ACCU-1. INSTALL PIPING ACCORDING TO MANUFACTURERS INSTALLATION REQUIREMENTS.
13. 3/4" CONDENSATE DRAIN PIPING. REFER TO PLUMBING FOR CONTINUATION.
14. BALANCE FCU-1 OUTSIDE AIR LOUVER TO 400 CFM USING THE DUCT OBD.
15. 20x20 RETURN AIR OPENING. BALANCE TO 1000 CFM USING THE DUCT OBD.
16. INTERLOCK THE MOTORIZED DAMPER WITH FCU-1. THE DAMPER SHALL BE OPEN WHEN FCU-1 IS OPERATING.
17. CONNECT TO POOL HEATING WATER SUPPLY AND RETURN TO POOL SYSTEM CONNECTION. REFER TO AQUATICS DRAWINGS FOR CONTINUATION. CONNECTION POINT MUST BE UPSTREAM OF THE CHEMICAL FEEDER CONNECTIONS.
18. PLUMBING EQUIPMENT SHOWN FOR REFERENCE ONLY.




1 M3.00 **HVAC SECTION**

SCALE: 1/8"=1'




2 M3.00 **HVAC SECTION**

SCALE: 1/8"=1'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STEVEN D. FRANZ NEW MEXICO 10515 LICENSED PROFESSIONAL ENGINEER

| Issues/Revisions: | Date: |
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Raton Aquatics Center
Raton, New Mexico

MCA Project No.: RAT 051-12

ENLARGED SCALE HVAC PLAN & SECTIONS

PROJECT ARCHITECT: John Quinn Pate, RA

Drawn by: BAB/DJB
Checked by: SDF

M3.00


PLOT DATE: Jun 28, 2001 @ 11:09am
FILE LOCATION: N:\2001\051-12-00.dwg LAYOUT NAME: M3.0

# NATATORIUM DEHUMIDIFICATION/HEAT RECOVERY UNIT SCHEDULE

| PLAN CODE | MANUFACT. & MODEL NO. | SERVICE | HEAT EXCHANGER | | | | | | | | | | | FANS | | | | | | | | COOLING | | | | | | HEATING | | | | ELECTRICAL | | | | PHYSICAL | | | | REMARKS |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | MODEL | MODE | CFM | EAT | LAT | APD | MODE | CFM | EAT | LAT | APD | SERVICE | CFM | SIZE/ CLASS | TYPE | ESP | RPM | BHP | MHP | CAP. TONS | MBH | AMBIENT (°F) | EDB/ WB | LDB/ WB | APD | INPUT (MBH) | OUTPUT (MBH @ ALT) | EAT | LAT | VOLT/ ø | DISC. SIZE | MOP | MCA | L | W | H | WT (LB) | |
| | INNOVENT | | | WINTER OA | 5,750 | −2.0 | 57.1 | 0.40" | WINTER EA | 9,450 | 86/49% | 57.2 | 0.80" | SUPPLY | 27,000 | 40"–II | AF–PLN | 1.25" | 955 | 16.4 | 20 | | | | | | | | | | | | | | | | | | | NOTE: |
| PDU–1 | RHSC | NATATORIUM | 1H–27000–AC/IP | SUMMER OA | 12,000 | 91/61 | 88/59.9 | 0.70" | SUMMER EA | 14,700 | 86/60% | 88.3 | 0.80" | | | | | | | | | 38 | 448 | 91 | 86.9/68.3 | 75/75 | 0.39" | 800 | 514.6 | 70.2 | 93 | 460/3 | 200 | 175 | 132.4 | 339" | 110" | 134" | 15,000 | 1,2,3,4,5,6,7,8,9,10 |
| | | | | PURGE | 12,000 | −2.0 | 55.5 | 0.50" | PURGE EA | 14,700 | 86/49% | 55.3 | 0.76" | EXHAUST | 14,700 | 27"–II | AF–PLN | 1.00" | 1,604 | 9.2 | 15 | | | | | | | | | | | | | | | | | | | |
| | | | | DEWPOINT OA | 12,000 | 59/59 | 75.9/75.9 | 0.55" | DEWPOINT EA | 14,700 | 86/60% | 72.1 | 0.78" | | | | | | | | | | | | | | | | | | | | | | | | | | | |

NOTES:
1. UNIT WEIGHT DOES NOT INCLUDE 6" CONCRETE CURB.
2. GAS FIRED HEATER EAT BASED ON WINTER PURGE MODE OPERATION.
3. PROVIDE GAS TRAIN CAPABLE OF OPERATING AT 6" WC GAS PRESSURE.
4. PROVIDE 1:15 MODULATING GAS CONTROL VALVE
5. PROVIDE WITH STAINLESS STEEL HEAT EXCHANGER.
6. PROVIDE WITH 2" 30" EFFICIENT PLEATED OA FILTERS AND 2" ALUMINUM RA FILTERS.
7. PROVIDE WITH 0/50/100% COMPRESSOR STAGING.
8. PROVIDE 14" TALL ROOF CURB (UNIT HEIGHT INCLUDES CURB)
9. CONTROL INTERFACE CARD.
10. DISCONNECT BY ELECTRICAL CONTRACTOR.

# ROOFTOP UNIT SCHEDULE (GAS FIRED HEATING & COOLING – POWER EXHAUST)

| PLAN CODE | MANUFACTURER & MODEL NUMBER | COOLING CAPACITY (NOTE 1) | | | | | | | | | HEATING CAPACITY | | | | | | SUPPLY FAN | | | | | EXHAUST FAN | | | ELECTRICAL | | | | | | | DIMENSIONS | | | | REMARKS |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | NOMINAL TONS | EFFICIENCY (AT ARI) | TOTAL MBH | SENSIBLE MBH | AMBIENT °F | EAT DB (°F) | EAT WB (°F) | LAT DB (°F) | LAT WB (°F) | MBH INPUT @ S.L. | MBH OUTPUT @ ALT. (6680') | HEATING STAGES | EAT | LAT (FIRST STAGE) | LAT (LAST STAGE) | CFM (COOLING) | MIN. O.A. CFM | CFM (HEATING) | HP | ESP | CFM | ESP | HP | VOLT/ ø/HZ | COMP. FLA | COND FLA | S.F. FLA | E.F. FLA | MCA | MOCP | H (IN) | L (IN) | W (IN) | WT (LBS) | |
| RTU–1 | YORK PREDIATOR 150 | 12.5 | 11.3 EER | 145.0 | 134.3 | 105.0 | 89.4 | 65.0 | 54.7 | 52.4 | 240.0 | 157.0 | 2 | 36.9 | – | 76.0 | 4,520 | 1,800 | 4,520 | 5.0 | 1.0" | 3,470 | 0.3" | 0.75 | 480/3/60 | (2) 11.8 | 0.8 | 5.3 | 2.2 | 37.5 | 45.0 | 65" | 120" | 59" | 2,000 | NOTES: 2,3,4,5,6,7,8,9,11 |
| RTU–2 | YORK SUNLINE MAGNUM 60 | 5.0 | 12.2 SEER | 46.9 | 42.7 | 105.0 | 84.3 | 63.0 | 54.7 | 51.8 | 125.0 | 72.0 | 2 | 40.0 | – | 96.8 | 1,500 | 500 | 1,500 | 1.5 | 0.6" | 1,500 | 0.3" | 0.50 | 480/3/60 | 9.6 | 1.3 | 2.6 | 1.7 | 18.5 | 25.0 | 56" | 82" | 45" | 1,000 | NOTES: 2,3,4,5,6,7,8,9,11 |
| RTU–3 | YORK SUNLINE MAGNUM 60 | 5.0 | 12.2 SEER | 41.5 | 36.6 | 105.0 | 89.7 | 65.2 | 54.7 | 52.4 | 100.0 | 58.0 | 2 | 38.7 | – | 84.4 | 1,500 | 550 | 1,500 | 1.5 | 0.6" | 1,500 | 0.3" | 0.5 | 480/3/60 | 9.6 | 1.3 | 2.6 | 1.7 | 18.5 | 25.0 | 56" | 82" | 45" | 1,000 | NOTES: 2,3,4,5,6,7,8,9,10,11 |

NOTES:
1. LEAVING AIR TEMPERATURE (LAT) IS TEMPERATURE OFF THE COOLING COIL AND NOT THE SYSTEM SUPPLY AIR TEMPERATURE.
2. PROVIDE UNIT WITH FACTORY FABRICATED INSULATED ROOF CURB.
3. UNIT HEIGHT INCLUDES 24" ROOF CURB.
4. MOUNT UNIT ON 6" CONCRETE CURB.
5. UNIT WEIGHT DOES NOT INCLUDE 6" CONCRETE CURB.
6. PROVIDE HIGH EFFICIENCY COMPRESSORS.
7. PROVIDE WITH STAINLESS STEEL HEAT EXCHANGER.
8. HAIL GUARDS.
9. DISCONNECT BY ELECTRICAL CONTRACTOR.
10. HORIZONTAL SUPPLY AND RETURN.
11. EQUIPMENT SHALL BE PROVIDED FACTORY DIRECT.

# SPLIT SYSTEM (FAN COIL UNIT AND AIR COOLED CONDENSING UNIT) SCHEDULE

| PLAN CODE | MANUFACTURER & MODEL NUMBER | SERVICE | SUPPLY FAN | | | | DX COOLING COIL | | | | | | | ELECTRICAL | | | SIZE (INCHES) | | | OPER. WT. (LBS) | REMARKS |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | CFM @ ALT. | ESP @ S.L. (IN WG) | POWER (WATTS/ HP) | VOLTS/ ø/HZ | TOTAL CAP. (MBH) | SENS. CAP. (MBH) | EAT DB (°F) | EAT WB (°F) | LAT DB (°F) | LAT WB (°F) | REFRIG. TYPE | HEAT FLA | MOTOR FLA | MCA | L | W | H | | |
| FCU–1 | YORK MA–16C | POOL M.R. | 1,400 | 0.50 | 1.00 | 460/3/60 | 40.8 | 25.5 | 81.4 | 67.0 | 49.0 | 48.0 | R–22 | 18.1 | 0.9 | 24.9 | 32" | 21" | 22" | 100 | NOTE: 1,2,3,4 |

NOTES:
1. ELECTRIC HEATER 14.4 KW.
2. HORIZONTAL UNIT WITH FACTORY DRAIN PAN.
3. DISCONNECT BY ELECTRICAL CONTRACTOR.
4. SPRING VIBRATION ISOLATION, PERMANENT FILTER, WALL MOUNTED THERMOSTAT.

| PLAN CODE | MANUFACTURER & MODEL NO. | CAPACITY | | AMBIENT | ELECTRICAL | | | | | | | | | DIMENSIONS | | | WT. (LBS) | REMARKS |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | TONS | MBH | | COMPRESSOR NO. | KW | VOLTS | ø | CONDENSER NO. | HP | VOLTS | ø | UNIT MCA | W | H | D | | |
| ACCU–1 | YORK H1RD048 | 3.5 | 40.8 | 95.0 | 1.0 | 7.7 | 480 | 3 | 1.0 | 0.25 | 480 | 3 | 10.3 | 43 | 34 | 32 | 250 | NOTES: 1,2,3 |

NOTES:
1. COMPLETE REFRIGERATION SPECIALTIES.
2. LOW AMBIENT KIT
3. DISCONNECT BY ELECTRICAL CONTRACTOR.

# FAN SCHEDULE

| PLAN CODE | MANUFACTURER & MODEL NO. | TYPE | SERVICE | CFM | T.S.P. | RPM | MOTOR HP | VOLTS | ø | RPM | WEIGHT (LBS) | VIBRATION ISOLATION | REMARKS |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| EF–1 | GREENHECK–GB–161 | ROOF | LOCKERS | 2,000 | 0.70 | 1037 | 1/2 | 115 | 1 | 1725 | 83 | NEOPRENE | NOTE: 1,5,8 |
| EF–2 | GREENHECK–CSP–A510 | CABINET | ELEC. ROOM | 400 | 0.30 | 1070 | 250 W | 115 | 1 | 1725 | 36 | SPRINGS | NOTE: 2,6,8 |
| EF–3 | FAN AM CBI 250 JET | ROOF | CHEMICAL | 300 | 0.50 | 2010 | 1/4 | 115 | 1 | 1140 | 45 | NEOPRENE | NOTE: 1,2,4,7,8 |
| EF–4 | FAN AM CBI 250 JET | ROOF | CHEMICAL | 300 | 0.50 | 2010 | 1/4 | 115 | 1 | 1140 | 45 | NEOPRENE | NOTE: 1,2,4,7,8 |
| EF–5 | GREENHECK–SP–A410 | CEILING | SNACK BAR | 300 | 0.30 | 1000 | 121 W | 115 | 1 | 1725 | 31 | SPRINGS | NOTE: 2,6,8 |

NOTES:
1. 14" INSULATED ALUMINUM ROOF CURB.
2. BACKDRAFT DAMPER
3. RUBBER IN SHEAR.
4. RAIN CAP
5. MOTORIZED DAMPER.
6. UNIT MOUNTED SPEED CONTROLLER.
7. PLASTIC CORROSION RESISTANT FAN.
8. INTEGRAL ELECTRICAL DISCONNECT.

# POOL HEATER SCHEDULE

| PLAN CODE | MANUFACTURER & MODEL NO. | MBH INPUT @ S.L. | MBH OUTPUT @ 6680' | BOILER TYPE | BURNER TYPE | FLUE DIA. | ELECTRICAL VOLTAGE | PHASE | DIMENSIONS L | W | H | OPER WT. (LBS) | REMARKS |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| B–1 | LOCHINVAR CPN 0991 | 990.0 | 775.0 | COPPER TUBE | NAT | 10" | 120 | 1 | 48–1/4" | 33–1/2" | 36" | 1,000 | NOTE: 1,2,4,7,8,9 |
| B–2 | LOCHINVAR ERN 402 | 399.0 | 258.5 | HIGH EFFICIENCY | NAT | 6" | 240 | 1 | 41" | 22" | 27" | 400 | NOTE: 1,3,4,5,6,10 |

NOTES:
1. POOL BOILER WITH AUTOMATIC BYPASS.
2. BOILER SERVES THE LEISURE POOL.
3. BOILER SERVES THE SPA.
4. DIRECT AIR VERTICAL VENTING + SIDEWALL AIR INLET + GRAVITY BACKDRAFT DAMPER.
5. 3/4" (NPT) GAS CONNECTION.
6. FUEL TYPE TO HEATER BURNER SHALL BE NATURAL GAS AT A PRESSURE OF 5 TO 14 INCHES WATER COLUMN.
7. FUEL TYPE TO HEATER BURNER SHALL BE NATURAL GAS AT A PRESSURE OF 4.5 TO 10.5 INCHES WATER COLUMN.
8. 2" (NPT) GAS CONNECTION
9. 120V, 1 PHASE, 60 HZ ELECTRICAL CONNECTION TO IGNITION AND 1/2 HP PUMP (2 CIRCUITS).
10. 120V, 1 PHASE, 60 HZ ELECTRICAL CONNECTION TO IGNITION.

# UNIT HEATER SCHEDULE (ELECTRIC)

| PLAN CODE | MANUF. & MODEL NO. | CAP. (MBH) | ELEMENT KW | VOLTS | ø | CFM | EAT | FLA | MOTOR HP | VOLTS | ø | RPM | WEIGHT (LBS) | CONTROL | REMARKS |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| UH–1 | QMARK MUH–03–71 | 10.2 | 3.0 | 277 | 1 | 350 | 55.0 | 11.0 | 1/100 | 277 | 1 | 1550 | 27 | NOTE: 1 | NOTE: 2,3 |
| UH–2 | QMARK MUH–03–71 | 10.2 | 3.0 | 277 | 1 | 350 | 55.0 | 11.0 | 1/100 | 277 | 1 | 1550 | 27 | NOTE: 1 | NOTE: 2,3 |
| UH–3 | BERKO JUW500 | 17.0 | 5.0 | 480 | 3 | 405 | 60.0 | 6.3 | 1/6 | 480 | 1 | 1550 | 60 | NOTE: 5 | NOTE: 2,3,4 |
| UH–4 | BERKO JUW500 | 17.0 | 5.0 | 480 | 3 | 405 | 60.0 | 6.3 | 1/6 | 480 | 1 | 1550 | 60 | NOTE: 5 | NOTE: 2,3,4 |

NOTES:
1. WALL MOUNTED 24 VOLT THERMOSTAT PROVIDED BY UNIT HEATER MANUFACTURER.
2. FLA (FULL LOAD AMPS) INCLUDES HEATING ELEMENT AND MOTOR CURRENT REQUIREMENTS.
3. INTEGRAL ELECTRICAL DISCONNECT.
4. CORROSION RESISTANT CONSTRUCTION WITH HEAVY DUTY STAINLESS STEEL CASE.
5. UNIT MOUNTED THERMOSTAT.

# CABINET UNIT HEATER SCHEDULE (ELECTRIC)

| PLAN CODE | MANUFACTURER & MODEL NO. | LOCATION | CAP. (MBH) | CFM | ELEMENT KW | VOLT | % | FLA | MOTOR HP | VOLT | % | ARRANGEMENT | DIMENSIONS L | W | HT | WT | CONTROL | REMARKS |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| CUH–1 | QMARK CU945 | VESTIBULE | 27.3 | 500 | 8.0 | 480 | 3 | 11.0 | 1/30 | 480 | 1 | NOTE: 1 | 48 | 9–3/4" | 26–3/8" | 160 | NOTE: 2 | NOTE: 3,4,5 |

NOTES:
1. FULL RECESSED CEILING MOUNTED UNIT.
2. WALL MOUNTED 24 VOLT THERMOSTAT PROVIDED BY UNIT HEATER MANUFACTURER.
3. SUBMIT COLOR CHARTS FOR STANDARD COLOR SELECTION BY THE ARCHITECT.
4. FLA (FULL LOAD AMPS) INCLUDES HEATING ELEMENT AND MOTOR CURRENT REQUIREMENTS.
5. INTEGRAL DISCONNECT.

# LOUVER SCHEDULE

| PLAN CODE | MANUFACTURER & MODEL NO. | SERVICE | FREE AREA (SQ. FT.) | CFM | VEL. (FPM) | A.P.D. (IN. W.C.) | MOUNTING TYPE | MATERIALS | SIZE (INCHES) H | L | W | REMARKS |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| LVR–1 | RUSKIN ELF30V | POOL RETURN AIR | 19.2 | 15,000 | 782 | 0.13 | STANDARD | NOTE: 1 | 96" | 48" | 3" | NOTES: 2,3 |
| LVR–2 | RUSKIN ELF30V | POOL RETURN AIR | 19.2 | 15,000 | 782 | 0.13 | STANDARD | NOTE: 1 | 96" | 48" | 3" | NOTES: 2,3 |
| LVR–3 | RUSKIN ELF30V | FCU–1 OUTSIDE AIR | 0.9 | 400 | 444 | 0.04 | STANDARD | NOTE: 1 | 16" | 16" | 3" | NOTES: 2,3 |
| LVR–4 | RUSKIN ELF30V | POOL MECHAICAL ROOM RELIEF | 0.9 | 400 | 444 | 0.04 | STANDARD | NOTE: 1 | 16" | 16" | 3" | NOTES: 2,3 |
| LVR–5 | RUSKIN ELF30V | EF–2 | 0.5 | 300 | 612 | 0.08 | STANDARD | NOTE: 1 | 8" | 16" | 3" | NOTES: 2,3 |
| LVR–6 | RUSKIN ELF30V | EF–5 | 0.5 | 300 | 612 | 0.08 | STANDARD | NOTE: 1 | 8" | 16" | 3" | NOTES: 2,3 |

NOTES:
1. EXTRUDED ALUMINUM.
2. 1/2" BIRD SCREEN.
3. BRONZE ANODIZED FINISH SUBMIT COLOR CHARTS FOR STANDARD COLOR SELECTION BY THE ARCHITECT.

# GRILLES, REGISTERS & DIFFUSERS SCHEDULE

| PLAN CODE | MANUFACTURER & MODEL NO. | TYPE & SERVICE | NECK SIZE | FACE SIZE | VOLUME DAMPER (OBD) | MATERIAL | MOUNTING TYPE | FINISH | REMARKS |
|---|---|---|---|---|---|---|---|---|---|
| SG–1 | TITUS 301FL | SUPPLY | AS NOTED | NECK+1.75" | NO | ALUMINUM | SURFACE | WHITE | |
| SR–1 | TITUS DL | SUPPLY | AS NOTED | NECK + 2" | YES | ALUMINUM | SURFACE | WHITE | NOTE: 5 |
| CD–1 | TITUS TDC–AA | SUPPLY | AS NOTED | NECK+5.56" | NO | ALUMINUM | SURFACE | WHITE | NOTE: 4,6 |
| CD–2 | TITUS TDC–AA | SUPPLY | AS NOTED | NECK+5.56" | NO | ALUMINUM | LAY–IN | WHITE | NOTE: 4 |
| CD–3 | TITUS TMR–AA | SUPPLY | AS NOTED | 14–3/4"ø | YES | ALUMINUM | SURFACE | WHITE | |
| RG–1 | TITUS PAR–AA | RETURN | 22" x 22" | 24" x 24" | NO | ALUMINUM | SURFACE | WHITE | |
| RG–2 | TITUS PAR–AA | RETURN | 22" x 10" | 24" x 12" | NO | ALUMINUM | LAY–IN | WHITE | |
| RG–3 | TITUS PAR–AA | RETURN | AS NOTED | 48" x 24" | NO | ALUMINUM | SURFACE | WHITE | |
| TG–1 | TITUS 350ZFL | EXHAUST GRILLE | AS NOTED | NECK+1.75" | NO | ALUMINUM | SURFACE | WHITE | NOTES: 2,3 |
| EG–1 | TITUS 350ZFL | EXHAUST GRILLE | AS NOTED | NECK+1.75" | NO | ALUMINUM | SURFACE | WHITE | NOTES: 2,3 |
| EG–2 | TITUS PAR–AA | EXHAUST GRILLE | 22" x 10" | 24" x 12" | NO | ALUMINUM | LAY–IN | WHITE | |
| ER–1 | TITUS 355FL | EXHAUST GRILLE | AS NOTED | NECK+1.75" | YES | ALUMINUM | SURFACE | WHITE | NOTES: 1,3 |

NOTES:
1. 35° DEFLECTION.
2. 0° DEFLECTION.
3. HEAVY DUTY.
4. 24"x24" MODULE WITH 18"x18" LOUVERED FACE.
5. DRUM LOUVER.
6. RAPID MOUNT FRAME.

# PUMP SCHEDULE

| PLAN CODE | MANUFACTURER & MODEL NO. | TYPE | SERVICE | IMP. DIA. (IN) | GPM | HEAD | % EFF. | ELECTRICAL HP (BHP) | VOLTS | ø | RPM | VIBRATION ISOLATION | CONTROL | WEIGHT (LBS) | REMARKS |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| P–1 | MARLOW 530SC 1–1/4–7 | BASE MOUNT | B–2 | 6.875 | 60.0 | 20.0 | 64.0 | 3/4 | 115 | 1 | 1150 | NONE | POOL CONTROLS | 105 | NOTES: 1 |

NOTES:
1. POOL PUMP FOR USE WITH CHLORINATED WATER.


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NOTICE OF EXTENDED PAYMENT PROVISION: THIS CONTRACT ALLOWS THE OWNER TO MAKE PAYMENT WITHIN 45 DAYS AFTER SUBMISSION OF AN UNDISPUTED REQUEST FOR PAYMENT


STEVEN D. FRANZ
NEW MEXICO
16516
LICENSED PROFESSIONAL ENGINEER
6-25-07

| Issues/Revisions: | Date: |
|---|---|
| Bid Document | 6-24-07 |

Raton Aquatics Center
Raton, New Mexico

MCA Project No.: RAT 051-12

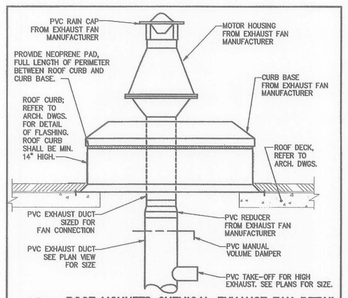
HVAC SCHEDULES

PROJECT ARCHITECT: John Quinn Pate, RA

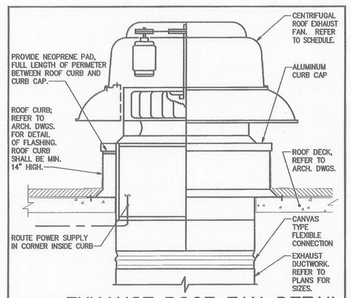
Drawn by: BAB/DJB
Checked by: SDF

M4.00

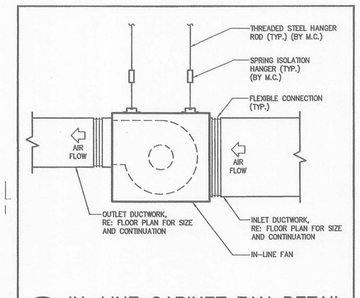

…T DATE: June 25, 2007 @ 11:03am
…E LOCATION: N:\06141\M4–00.dwg; LAYOUT NAME: M4.0



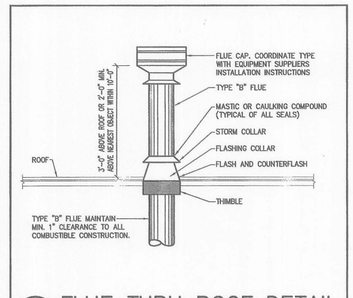

1 M5.00 ROOF MOUNTED CHEMICAL EXHAUST FAN DETAIL
SCALE: NONE



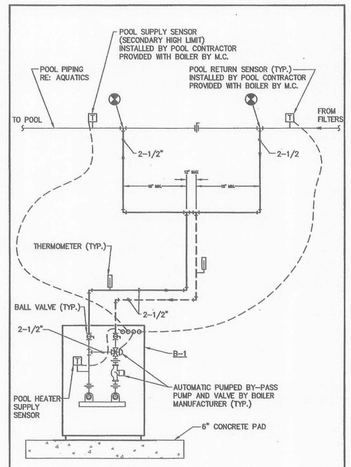

2 M5.00 EXHAUST ROOF FAN DETAIL
SCALE: NONE




3 M5.00 IN-LINE CABINET FAN DETAIL
SCALE: NONE




4 M5.00 FLUE THRU ROOF DETAIL
SCALE: NONE

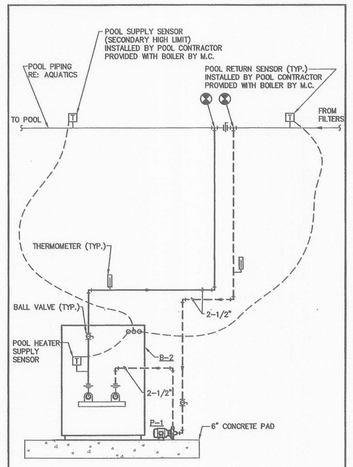



NOTES:

1. ALL POOL HEATER PIPING SHALL BE CPVC.
2. CHLORINATOR MUST BE LOCATED DOWN STREAM OF THE POOL HEATERS
3. PIPING DIAGRAM VALID IF HEATERS ARE LOCATED BEYOND 15' FROM POOL PIPING

POINT OF CONNECTION TO POOL PIPING.

9 M5.00 POOL HEATER PIPING DETAIL
SCALE: NONE

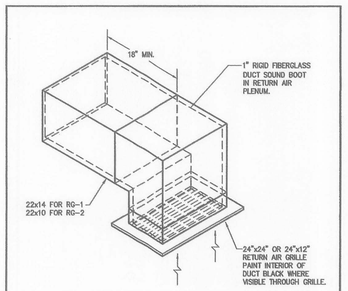



NOTES:

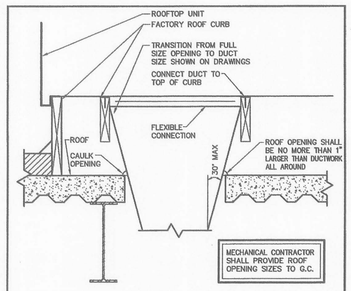
1. ALL POOL HEATER PIPING SHALL BE CPVC.
2. CHLORINATOR MUST BE LOCATED DOWN STREAM OF THE POOL HEATERS
3. PIPING DIAGRAM VALID IF HEATERS ARE LOCATED BEYOND 15' FROM POOL PIPING

POINT OF CONNECTION TO POOL PIPING.

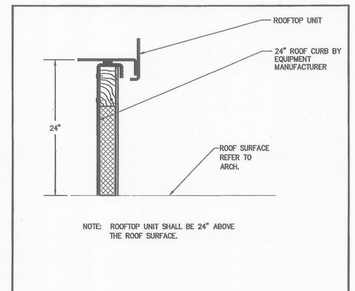
10 M5.00 SPA HEATER PIPING DETAIL
SCALE: NONE




5 M5.00 SOUND BOOT DETAIL
SCALE: NONE

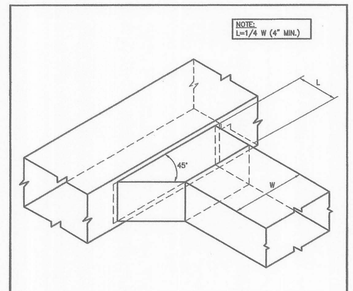



6 M5.00 RTU - DUCT THROUGH ROOF DETAIL
SCALE: NONE




NOTE: ROOFTOP UNIT SHALL BE 24" ABOVE THE ROOF SURFACE.

7 M5.00 ROOF CURB DETAIL
SCALE: NONE




8 M5.00 BRANCH DUCT TAKE-OFF DETAIL
SCALE: NONE

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STEVEN D. FRANZ NEW MEXICO 16515 6-25-07 LICENSED PROFESSIONAL ENGINEER

| Issues/Revisions: | Date: |
|---|---|
| Bid Document | 6-24-07 |

Raton Aquatics Center
Raton, New Mexico

MCA Project No.: RAT 051-12

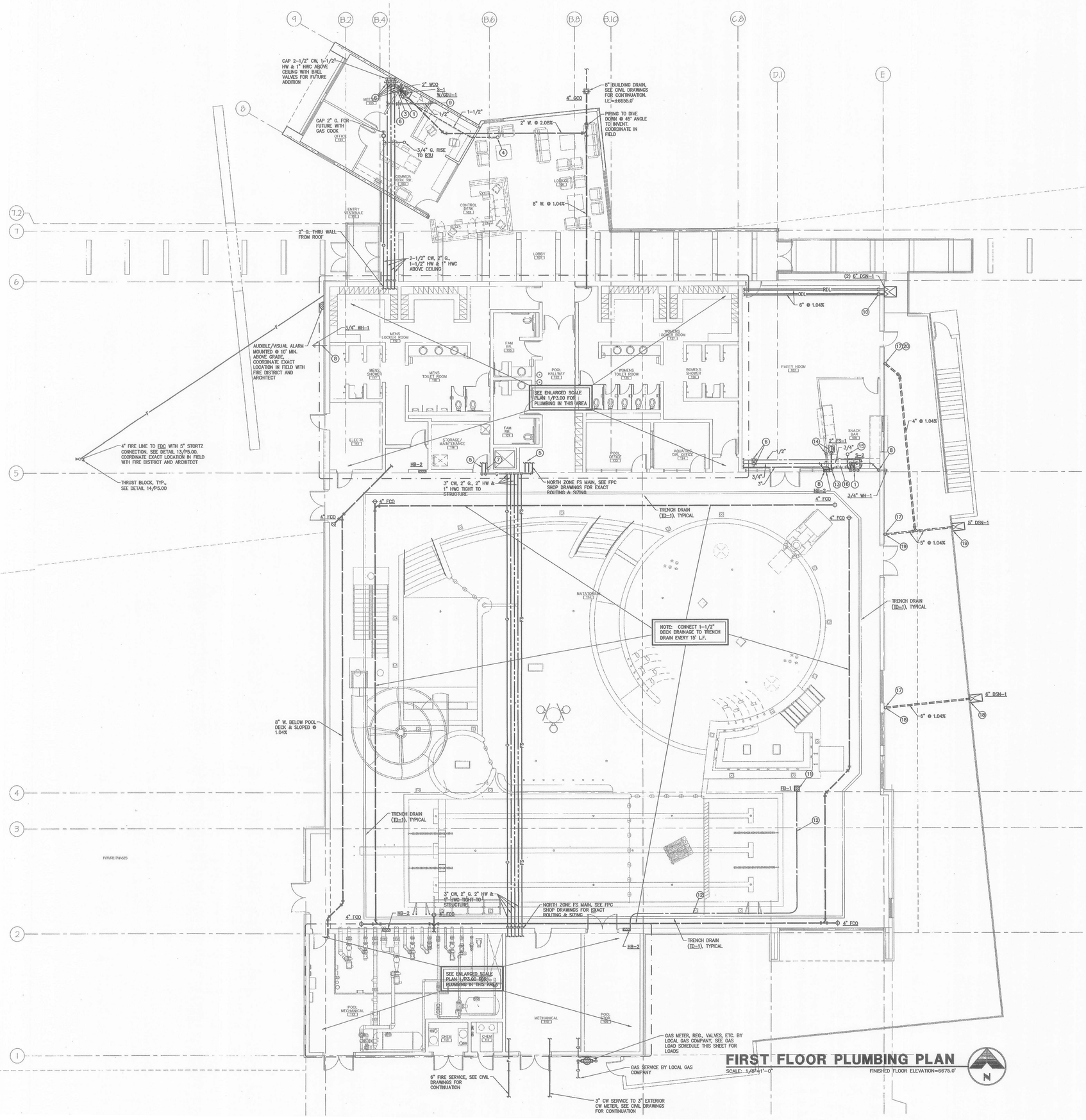
HVAC DETAILS

PROJECT ARCHITECT: John Quinn Pate, RA

Drawn by: BAB/DJB
Checked by: SDF

M5.00

PLOT DATE: June 25, 2007 @ 10:27am
FILE LOCATION: R:\051-01\05-dwg LAYOUT NAME: M5.0




## PLUMBING GENERAL NOTES:

1. FIELD VERIFY EXACT LOCATION OF ALL CONNECTION POINTS PRIOR TO CONSTRUCTION.
2. ROUGH-IN AND FINAL CONNECT ALL FIXTURES, EQUIPMENT, ETC.
3. ALL WORK SHALL BE PER LOCAL BUILDING AND HEALTH DEPARTMENT REQUIREMENTS.
4. PROVIDE BALL VALVES ON ALL BRANCH LINES FOR BUILDING ISOLATION WHETHER SHOWN OR NOT.
5. REFERENCE HVA/C DRAWINGS FOR EXACT LOCATION OF ALL HVA/C EQUIPMENT REQUIRING PLUMBING CONNECTIONS. COORDINATE WITH HVAC CONTRACTOR EXACT PLUMBING CONNECTION REQUIREMENTS PRIOR TO COMMENCING WORK.
6. ALL STORM DRAINAGE PIPING WITHIN THE BOUNDARIES OF THE BUILDING SHALL BE SLOPED AT 1/8"/F.T. UNLESS OTHERWISE NOTED.
7. ALL VENTS THROUGH THE ROOF (VTR) SHALL BE POSITIONED A MINIMUM OF 15'-0" FROM ANY FRESH AIR INTAKE.
8. REFERENCE ARCHITECTURAL DRAWINGS FOR LOCATIONS OF ALL FIRE RATED WALLS. ALL PIPE PENETRATIONS THROUGH FIRE RATED WALLS SHALL BE SEALED IN ACCORDANCE WITH THE BUILDING CODE.
9. OFFSET ALL PIPING AS REQUIRED TO AVOID STRUCTURAL MEMBERS, CANTS, FLASHING, MECHANICAL OR ELECTRICAL EQUIPMENT.
10. PROVIDE TRAP PRIMERS TO ALL FLOOR DRAINS & FLOOR SINKS WITH ACCESS THAT HAVE THE POSSIBILITY FOR EVAPORATION PROBLEMS AND AS INDICATED IN THE SPECIFICATION.
11. SEE DRAWING FP2.10 & FPC SHOP DRAWINGS FOR FIRE PROTECTION DESIGN AND LAYOUT. WORK WILL BE PREFORMED BY LICENSED NEW MEXICO P.E. FIRE PROTECTION ENGINEER.

## PLUMBING KEYNOTES:

(1) 2" W. DOWN, 1-1/2" V. RISE, 1/2" HW, AND 1/2" CW TO SINK.
(2) 2" W. DOWN, 1-1/2" V. RISE, AND 1/2" CW TO ELECTRIC WATER COOLER/DRINKING FOUNTAIN.
(3) 1/2" HW AND 1/2" CW DOWN IN WALL AND OFFSET TO FIXTURES.
(4) 1-1/2" V. RISE TO 3" VTR.
(5) 3" CW, 2" HW & 1" HWC, SEE DRAWING P3.00 FOR CONTINUATION.
(6) BALL VALVES (FULL SIZE) ABOVE CEILING WITH ACCESS.
(7) 2" G. TO OFFSET ONTO ROOF, SEE DRAWING P2.20 FOR CONTINUATION.
(8) 3/4" CW DOWN IN WALL TO WALL HYDRANT/HOSE BIBB.
(9) 1/2" CW DOWN IN WALL WITH ANGLE SUPPLY STOP & CONNECT TO REFRIGERATOR ICE MAKER.
(10) 6" RDL & 6" ODL DOWN ON WALL & BELOW FLOOR TO (2) 6" D.S. NOZZLES @ 18" ABOVE SPLASH BLOCK. (EXTEND TO FOUNDATION WALL).
(11) 1" CW BELOW POOL DECK TO FLOOR BOX.
(12) 1" CW BELOW POOL DECK.
(13) 2" W. DOWN, 2" V. RISE TO FS.
(14) 1/2" CW DOWN TO ICE-MAKER, VERIFY IN FIELD EXACT LOCATION WITH OWNER/ARCH. PRIOR TO INSTALLATION OF FS & WATER.
(15) 2" V. RISE TO 3" VTR.
(16) CONNECT 1/2" HW & INDIRECT WASTE FOR DISHWASHER, INSTALL PER LOCAL CODES.
(17) CONNECT S.D. PIPING TO RECTANGLE ARCHITECTURAL GUTTER WITH GUTTER TO PIPE ADAPTER. COORDINATE SIZING.
(18) CONNECT 6" S.D. TO ARCHITECTURAL DOWNSPOUT WITH ADAPTER. 6" S.D. TO OFFSET BELOW GRADE TO FOUNDATION WALL WITH 6" D.S. NOZZLE DSN-1 AT 18" ABOVE SPLASH BLOCK.
(19) CONNECT 5" S.D. TO ARCHITECTURAL DOWNSPOUT WITH ADAPTER. 5" S.D. TO OFFSET BELOW GRADE TO FOUNDATION WALL WITH 5" D.S. NOZZLE DSN-1 AT 18" ABOVE SPLASH BLOCK.
(19) CONNECT 4" S.D. TO ARCHITECTURAL DOWNSPOUT WITH ADAPTER. 4" S.D. TO OFFSET BELOW GRADE TO FOUNDATION WALL WITH 5" D.S. NOZZLE DSN-1 AT 18" ABOVE SPLASH BLOCK.

## GAS LOAD SCHEDULE

| APPLIANCE | LOAD |
|---|---|
| ROOFTOP UNIT (RTU-1) | 240.0 MBH |
| ROOFTOP UNIT (RTU-2) | 125.0 MBH |
| ROOFTOP UNIT (RTU-3) | 100.0 MBH |
| ROOFTOP UNIT (RTU-4) | 800.0 MBH |
| GAS WATER HEATER (GWH-1) | 750.0 MBH |
| GAS WATER HEATER (GWH-2) | 750.0 MBH |
| POOL BOILER (B-1) | 1440.0 MBH |
| POOL BOILER (B-2) | 1440.0 MBH |
| SPA BOILER (B-3) | 399.0 MBH |
| FUTURE LAP POOL ADDITION (ESTIMATES) | 600.0 MBH |
| FUTURE GYM ADDITION | 1,530.0 MBH |
| TOTAL | 8,224.0 MBH INPUT @ S.L., (2.0 PSI GAS REQ'D) |

## FIRE SPRINKLER ZONE

| ZONE #1 (SOUTH): | |
|---|---|
| NATATORIUM | 10,870 S.F. |
| POOL/MECH. EQUIP. AREAS | 1,680 S.F. |
| FUTURE LAP POOL | 8,200 S.F. |
| TOTAL | 20,750 S.F. |

| ZONE #2 (NORTH): | |
|---|---|
| NEW BUILDING "NORTH OF NATATORIUM | 6,798 S.F. |
| FUTURE ADDITION "GYM ETC" NORTH OF NEW BUILDING | 25,500 S.F. |
| TOTAL | 32,298 S.F. |

NOTE: FIRE PROTECTION CONTRACTOR TO PROVIDE FUTURE CONNECTION POINTS IN FIRE SPRINKLER ZONE FOR EXTENSION TO FUTURE PHASES.

* FIRE PROTECTION CONTRACTOR TO COORDINATE LOBBY 100 STRUCTURE CEILING OFFSETS & CLOUDS WITH REGARDS TO FIRE SPRINKLER HEAD LAYOUT.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STEVEN D. FRASER NEW MEXICO 10515 REGISTERED PROFESSIONAL ENGINEER 6-25-07

| Issues/Revisions: | Date: |
|---|---|
| Bid Document | 6-24-07 |

Raton Aquatics Center
Raton, New Mexico

MCA Project No.: RAT 051-12

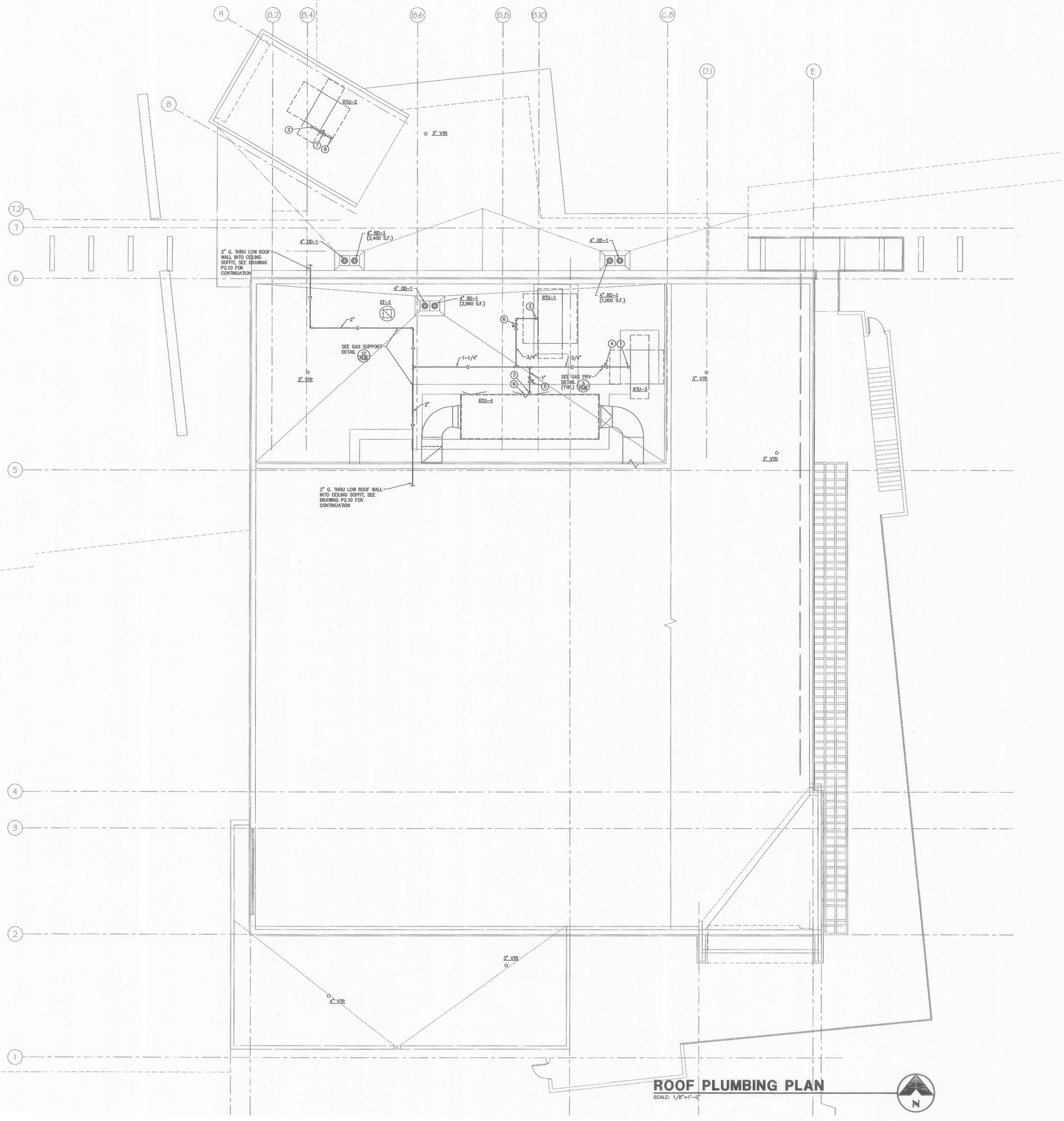
FIRST FLOOR PLUMBING PLAN

PROJECT ARCHITECT: John Quinn Pate, RA

Drawn by: TRH
Checked by: TRH

P2.10

PLOT DATE: June 27, 2007 @ 9:10am
FILE LOCATION: N:\2041\VP-5-0.dwg LAYOUT NAME: P2.10




## PLUMBING GENERAL NOTES:

1. FIELD VERIFY EXACT LOCATION OF ALL CONNECTION POINTS PRIOR TO CONSTRUCTION.
2. ROUGH-IN AND FINAL CONNECT ALL FIXTURES, EQUIPMENT, ETC.
3. ALL WORK SHALL BE PER LOCAL BUILDING AND HEALTH DEPARTMENT REQUIREMENTS.
4. PROVIDE BALL VALVES ON ALL BRANCH LINES FOR BUILDING ISOLATION WHETHER SHOWN OR NOT.
5. REFERENCE HVA/C DRAWINGS FOR EXACT LOCATION OF ALL HVA/C EQUIPMENT REQUIRING PLUMBING CONNECTIONS. COORDINATE WITH HVAC CONTRACTOR EXACT PLUMBING CONNECTION REQUIREMENTS PRIOR TO COMMENCING WORK.
6. ALL STORM DRAINAGE PIPING WITHIN THE BOUNDARIES OF THE BUILDING SHALL BE SLOPED AT 1/8"/FT. UNLESS OTHERWISE NOTED.
7. ALL VENTS THROUGH THE ROOF (VIR) SHALL BE POSITIONED A MINIMUM OF 15'-0" FROM ANY FRESH AIR INTAKE.
8. REFERENCE ARCHITECTURAL DRAWINGS FOR LOCATIONS OF ALL FIRE RATED WALLS. ALL PIPE PENETRATIONS THROUGH FIRE RATED WALLS SHALL BE SEALED IN ACCORDANCE WITH THE BUILDING CODE.
9. OFFSET ALL PIPING AS REQUIRED TO AVOID STRUCTURAL MEMBERS, CANTS, FLASHING, MECHANICAL OR ELECTRICAL EQUIPMENT.
10. PROVIDE TRAP PRIMERS TO ALL FLOOR DRAINS & FLOOR SINKS WITH ACCESS THAT HAVE THE POSSIBILITY FOR EVAPORATION PROBLEMS AND AS INDICATED IN THE SPECIFICATION.

## PLUMBING KEYNOTES:

1. CONNECT 3/4" GAS COCK AND 6" DIRT LEG TO ROOFTOP UNIT.
2. CONNECT 1" GAS COCK AND 6" DIRT LEG TO ROOFTOP UNIT/BOILER.
3. CONNECT 2" GAS COCK AND 6" DIRT LEG TO ROOFTOP UNIT.
4. GAS PRV (2.0 PSI TO 10" WC GAS, 100 MBH INPUT @ S.L.)
5. GAS PRV (2.0 PSI TO 10" WC GAS, 800 MBH INPUT @ S.L.)
6. GAS PRV (2.0 PSI TO 10" WC GAS, 240 MBH INPUT @ S.L.)
7. GAS PRV (2.0 PSI TO 10" WC GAS, 125 MBH INPUT @ S.L.)
8. 1" G. UP FROM BELOW & OFFSET ON ROOF.
9. 2" CONDENSATE DRAIN TO CONNECT TO RTU-4 IN CURB AND DOWN.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Mechanical Consulting Engineers
(303) 988-4514



NOTICE OF EXTENDED PAYMENT PROVISION: THIS CONTRACT ALLOWS THE OWNER TO MAKE PAYMENT WITHIN 45 DAYS AFTER SUBMISSION OF AN UNDISPUTED REQUEST FOR PAYMENT


STEVEN D. FRANCO NEW MEXICO 16616 REGISTERED PROFESSIONAL ENGINEER

| Issues/Revisions: | Date: |
|---|---|
| Bid Document | 6-24-07 |

Raton Aquatics Center
Raton, New Mexico

MCA Project No.: RAT 051-12

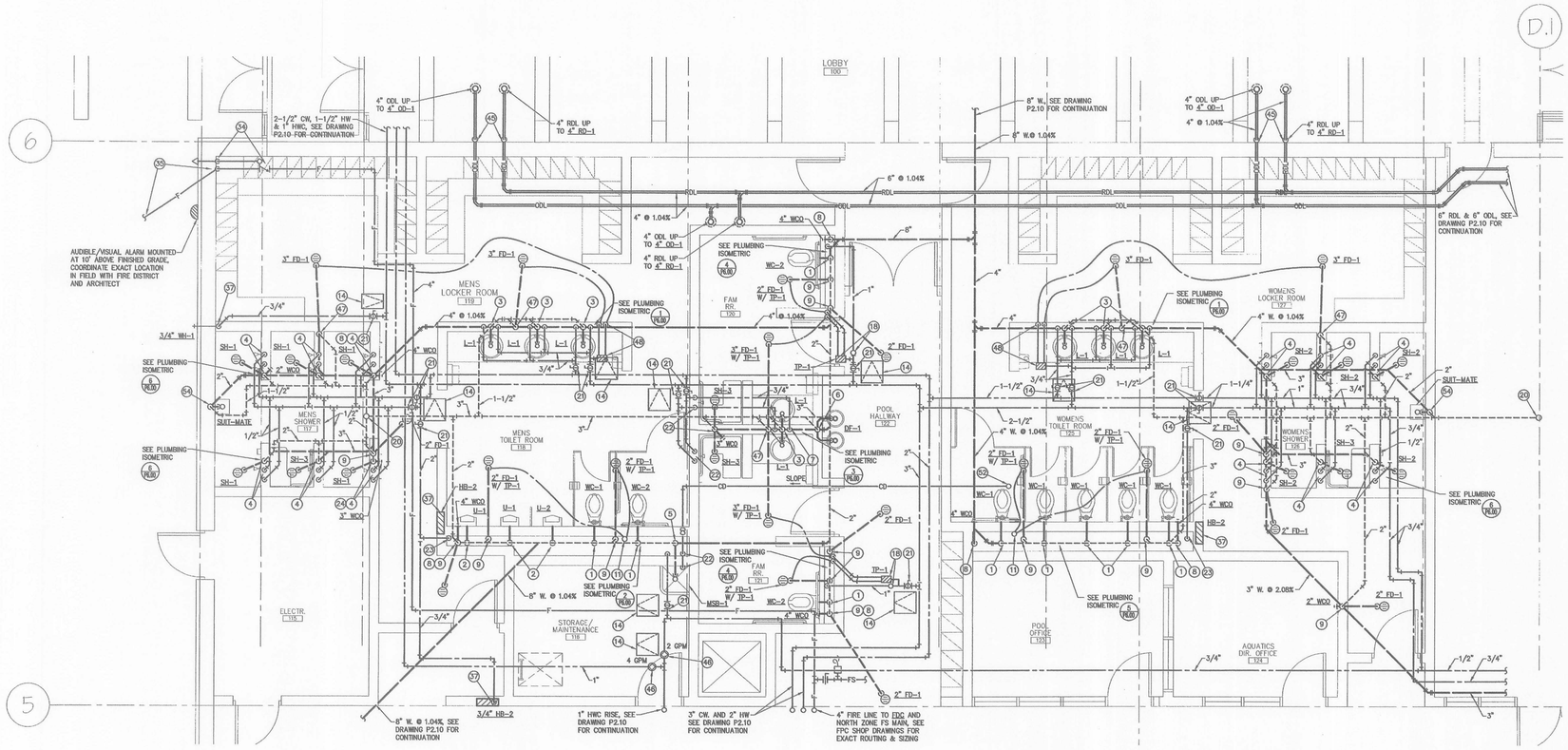
ROOF PLUMBING PLAN

PROJECT ARCHITECT: John Quinn Pate, RA

Drawn by: TRH
Checked by: TRH

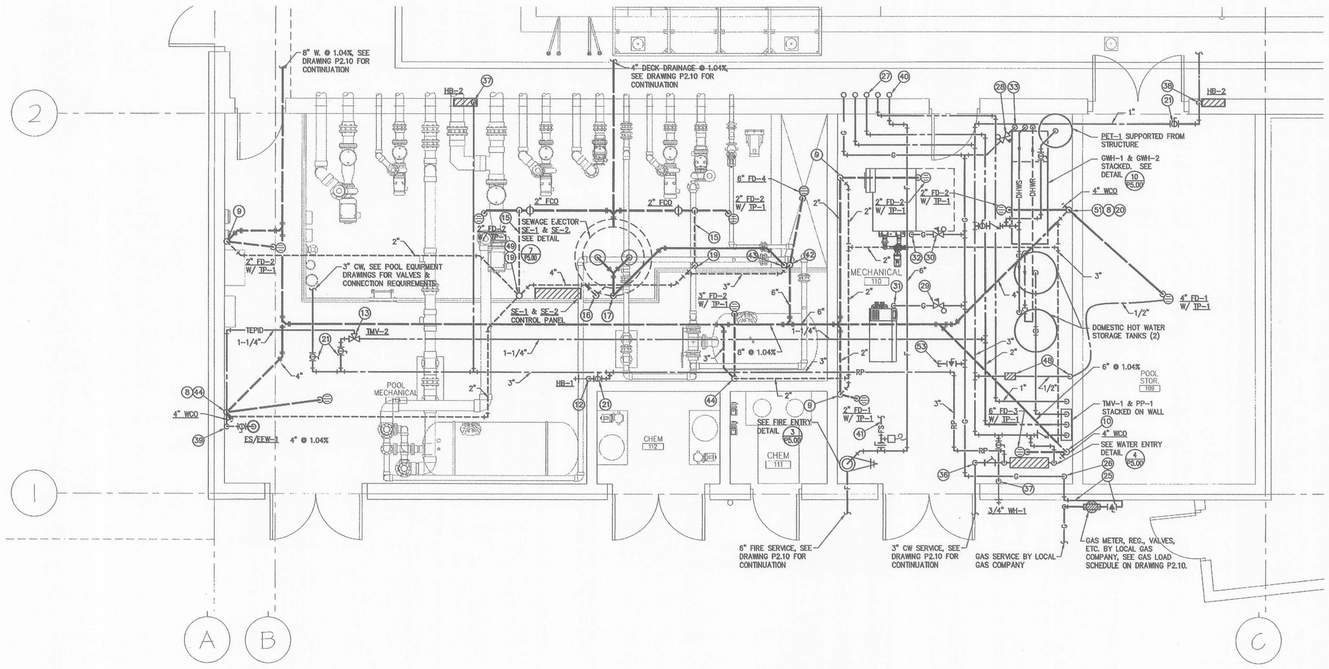
P2.20


PLOT DATE: June 25, 2007 @ 11:12am
FILE LOCATION: N:\2007\07-204\dwg\ LAYOUT NAME: P2.20




1 P3.0 ENLARGED SCALE PLUMBING PLAN

SCALE: 1/4"=1'-0"




2 P3.0 ENLARGED SCALE PLUMBING PLAN

SCALE: 1/4"=1'-0"

## PLUMBING GENERAL NOTES:

1. FIELD VERIFY EXACT LOCATION OF ALL CONNECTION POINTS PRIOR TO CONSTRUCTION.
2. ROUGH-IN AND FINAL CONNECT ALL FIXTURES, EQUIPMENT, ETC.
3. ALL WORK SHALL BE PER LOCAL BUILDING AND HEALTH DEPARTMENT REQUIREMENTS.
4. PROVIDE BALL VALVES ON ALL BRANCH LINES FOR BUILDING ISOLATION WHETHER SHOWN OR NOT.
5. REFERENCE HVA/C DRAWINGS FOR EXACT LOCATION OF ALL HVA/C EQUIPMENT REQUIRING PLUMBING CONNECTIONS. COORDINATE WITH HVAC CONTRACTOR EXACT PLUMBING CONNECTION REQUIREMENTS PRIOR TO COMMENCING WORK.
6. ALL STORM DRAINAGE PIPING WITHIN THE BOUNDARIES OF THE BUILDING SHALL BE SLOPED AT 1/8"/FT. UNLESS OTHERWISE NOTED.
7. ALL VENTS THROUGH THE ROOF (VTR) SHALL BE POSITIONED A MINIMUM OF 15'-0" FROM ANY FRESH AIR INTAKE.
8. REFERENCE ARCHITECTURAL DRAWINGS FOR LOCATIONS OF ALL FIRE RATED WALLS. ALL PIPE PENETRATIONS THROUGH FIRE RATED WALLS SHALL BE SEALED IN ACCORDANCE WITH THE BUILDING CODE.
9. OFFSET ALL PIPING AS REQUIRED TO AVOID STRUCTURAL MEMBERS, CANTS, FLASHING, MECHANICAL OR ELECTRICAL EQUIPMENT.
10. PROVIDE TRAP PRIMERS TO ALL FLOOR DRAINS & FLOOR SINKS WITH ACCESS THAT HAVE THE POSSIBILITY FOR EVAPORATION PROBLEMS AND AS INDICATED IN THE SPECIFICATION.

## PLUMBING KEYNOTES:

1. 4" W. DOWN, 2" V. RISE, AND 1" CW TO WATER CLOSET.
2. 2" W. DOWN, 1-1/2" V. RISE, AND 3/4" CW TO URINAL.
3. 2" W. DOWN, 1-1/2" V. RISE, 1/2" HW & 1/2" CW TO LAVATORY/SINK.
4. 2" W. DOWN, 2" V. RISE, 1/2" HW & 1/2" CW TO SHOWER.
5. 3" W. DOWN, 2" V. RISE, 1/2" CW & 1/2" HW TO MOP SERVICE BASIN.
6. 2" W. DOWN, 1-1/2" V. RISE, 1/2" CW TO DRINKING FOUNTAIN.
7. 3/4" HW AND 3/4" CW DOWN IN WALL AND OFFSET TO FIXTURES
8. 4" W. RISE TO 4" WCO.
9. 2" W. DOWN AND 2" V. RISE FROM FLOOR DRAIN.
10. 6" W. DOWN AND 3" V. RISE FROM FLOOR DRAIN.
11. SHOCK ABSORBER & TRAP PRIMER WITH ACCESS PANEL, OFFSET 1/2" CW TO FD.
12. 3/4" CW DOWN TO HB-1.
13. 1-1/4" HW, 1-1/4" CW TO TMV-2, 1-1/4" TEPID WATER TO ES/EEW-1.
14. 18"x18" ACCESS PANEL, COORDINATE LOCATION IN FIELD.
15. 2" V. BELOW FLOOR SLAB.
16. 3" V. FROM SEWAGE EJECTOR SUMP & RISE ON WALL & OFFSET @ STRUCTURE.
17. 2" SEWAGE ELECTOR RISE & OFFSET WITH 4" W. @ STRUCTURE.
18. SHOCK ABSORBER & TRAP PRIMER ABOVE CEILING WITH ACCESS, OFFSET 1/2" CW TO FD.
19. 4" V. RISE TO 4" VTR.
20. 3" V. RISE TO 3" VTR.
21. BALL VALVES ABOVE CEILING WITH ACCESS.
22. 2" CONDENSATE DRAIN DOWN IN CHASE AND AIRGAP TO MSB.
23. 2" W. DOWN IN WALL AND OFFSET TO FIXTURES.
24. 3" W. RISE TO 3" WCO.
25. 3" G. WITH PLUG VALVE ON HOUSE SIDE OF METER ANS ENTER BUILDING MIN. 24" ABOVE FINISHED GRADE.
26. 3" G. RISE ON WALL AND OFFSET AT STRUCTURE.
27. 3" CW, 2" HW, 2" G. AND 1" HWC RISE ON WALL AND OFFSET AT STRUCTURE.
28. GAS PRESSURE REDUCING VALVE (1,500 MBH INPUT @ S.L., 2.0 PSI TO 10" W.C. GAS) PIPE 1-1/4" GAS RELIEF THRU ROOF WITH GOOSENECK.
29. GAS PRESSURE REDUCING VALVE (369.0 MBH INPUT @ S.L., 2.0 PSI TO 10" W.C. GAS) PIPE 1" GAS RELIEF THRU ROOF WITH GOOSENECK.
30. GAS PRESSURE REDUCING VALVE (2,880 MBH INPUT @ S.L., 2.0 PSI TO 10" W.C. GAS) PIPE 2" GAS RELIEF THRU ROOF WITH GOOSENECK.
31. 1-1/4" G. DOWN AND CONNECT TO POOL BOILER (B-3) WITH GAS COCK AND 6" DIRT LEG.
32. 3" G. DOWN AND CONNECT 2-1/2" G., WITH GAS COCK AND 6" DIRT LEG TO POOL BOILER B-1 AND B-2
33. 2-1/2" G. DOWN AND CONNECT 2" G. WITH GAS COCK AND 6" DIRT LEG TO GWH-1 AND GWH-2.
34. 4" U.L. CHECK VALVE AT STRUCTURE WITH 3/4" AUTO BALL DRAIN PIPED TO EXTERIOR.
35. 4" FIRE LINE DOWN AND OFFSET TO FDC.
36. 3" CW SERVICE RISE AND OFFSET ON WALL TO WATER ENTRY.
37. 3/4" CW DOWN IN WALL TO 3/4" HB-2/3/4 WH-1.
38. 1" CW DOWN IN WALL, 3/4" CW TO HB-2, 1" CW DOWN AND OFFSET BELOW POOL DECK.
39. 1-1/4" TEPID WATER TO CONNECT TO ES/EEW-1, SEE DETAIL 6/P5.00.
40. EXTENT FIRE LINE TO NORTH ZONE AND FDC, SEE FPC SHOP DRAWINGS FOR EXACT ROUTING AND SIZING.
41. EXTENT FIRE SPRINKLER LINE TO SOUTH ZONE, SEE FPC SHOP DRAWINGS FOR EXACT ROUTING AND SIZING.
42. 6" W. DOWN, 3" V. RISE FOR FD.
43. 4" W. DOWN ON WALL & AIRGAP TO BACKWASH PIT.
44. 3" W. DOWN, 2" V. RISE FOR FD.
45. 4" RDL & 4" ODL DOWN EXPOSED ON WALL & OFFSET IN STRUCTURE OF LOCKER ROOM.
46. BALANCING VALVE ABOVE CEILING WITH ACCESS.
47. 3" W. DOWN, 2" V. RISE, 1/2" CW TO FD.
48. TRAP PRIMER ABOVE CEILING WITH ACCESS & OFFSET TO FD.
49. 2" V. UP ON WALL & OFFSET @ STRUCTURE.
50. 3" V. UP ON WALL & OFFSET @ STRUCTURE.
51. 4" W. DOWN, 2" V. RISE TO FD.
52. 2" CONDENSATE DRAIN DOWN FROM RTU-4.
53. CAP 2" G. WITH GAS COCK FOR FUTURE LAP POOL CONNECTION.
54. 2" W. DOWN, 1-1/2" V. RISE FROM SUIT-MATE.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| Issues/Revisions: | Date: |
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Raton Aquatics Center
Raton, New Mexico

MCA Project No.: RAT 051-12

ENLARGED SCALE PLUMBING PLANS

PROJECT ARCHITECT: John Quinn Pate, RA

Drawn by: TRH
Checked by: TRH

P3.00


PLOT DATE: June 25, 2007 @ 11:14am
FILE LOCATION: N:\SHEETS\P3-00.dwg LAYOUT NAME: P3.00

## WATER HEATER SCHEDULE (GAS-FIRED)

| PLAN CODE | MANUFACTURER & MODEL NO. | STORAGE GALLONS | G.P.H. RECOVERY @ 100° RISE | BTUH INPUT @ SEA LEVEL | FLUE SIZE | TANK SIZE DIA. | TANK SIZE HT. | OPER. WEIGHT | REMARKS |
|---|---|---|---|---|---|---|---|---|---|
| GWH-1 | LOCHINVAR #CFN751PM | 200 EACH | 576 | 750,000 | (2) 8" | 32" | 77-1/4" | NOTE 4 | NOTES: 1,2,3,4,5 |
| GWH-2 | LOCHINVAR #CFN751PM | 200 EACH | 576 | 750,000 | (2) 8" | 32" | 77-1/4" | NOTE 4 | NOTES: 1 2,3,4,5 |
| | | | | | | | | | |

NOTES:
1. ASME RATED
2. DIRECT VENTED.
3. PROVIDE (2) LOCHINVAR #RJA200, ASME, 200 GALLON STORAGE TANK
4. TANK (2) EACH 2300 LBS, HEATER (2) EACH 700 LBS.
5. (2) SEPARATE 120/60/1ø CIRCUITS FOR EACH HEATER, (1) CONTROL, (1) PUMP – 1/3 H.P.

## PUMP SCHEDULE

| PLAN CODE | MANUFACTURER & MODEL NO. | TYPE | SERVICE | MAX OPER. TEMP | GPM | HEAD (FT) | % EFF. | ELECTRICAL HP (BHP) | ELECTRICAL VOLTS | ELECTRICAL ø | ELECTRICAL RPM | VIBRATION ISOLATION | CONTROL | WEIGHT (LBS) | REMARKS |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| PP-1 | B&G SERIES PL-36B | IN-LINE | DOMESTIC HW CIRC. | 120°F | 6 | 30' | – | 1/6 | 120 | 1 | 1,750 | INTEGRAL | DDC | – | NOTES: 1, 2 |
| SE-1/ SE-2 | WEIL #2422-600 | SUBMERSIBLE | DECK DRAINAGE | #600 | 50 | 31' | – | 1-1/2 | 480 | 3 | 1,750 | – | NOTE: 3 | | |
| | | | | | | | | | | | | | | | |

NOTES:
1. ALL BRONZE ( PROVIDE BALANCE REPORT).
2. CLOCK BY T.C.C. AND WIRED BY T.C.C.
3. DUPLEX CONTROL PANEL (WEIL CO. #8159) , ALTERNATING, HW ALARM, DRY CONTACTS (TROUBLE), MERCURY FLOATS, M.C. TO PROVIDE ALL WIRING TO PANEL FROM SUMP, POWER WIRED TO PANEL BY E.C., PROVIDE REMOTE HW ALARM CONTACT FOR T.C.C. CONNECTION.

## PLUMBING FIXTURE SCHEDULE

| PLAN CODE | DESCRIPTION | MANUF. | MODEL | COLOR FINISH | FITTINGS | MANUF. | MODEL | COLOR FINISH | REMARKS |
|---|---|---|---|---|---|---|---|---|---|
| WC-1 | WATER CLOSET | KOHLER | K-4330 | WHITE | FLUSH VALVE SEAT | SLOAN KOHLER | 8111 K-4666-C | CHROME WHITE | NOTES: 2,8,19 |
| WC-2 | WATER CLOSET (ACCESSIBLE) | KOHLER | K-4330 | WHITE | FLUSH VALVE SEAT | SLOAN KOHLER | 8111 K-4666-C | CHROME WHITE | NOTES: 2,8,20 |
| U-1 | URINAL | KOHLER | 4960-ET | WHITE | FLUSH VALVE | SLOAN | 8160-1.0 | CHROME | NOTES: 2,8,21,26 |
| U-2 | URINAL (ACCESSIBLE) | KOHLER | 4960-ET | WHITE | FLUSH VALVE | SLOAN | 8160-1.0 | CHROME | NOTES: 2,8,22,26 |
| L-1 | LAVATORY (UNDERCOUNTER MOUNTED) | KOHLER | K-2211 | WHITE | FAUCET DRAIN | SLOAN KOHLER | 2530-LHP-H24-A24-0.5 GPM K-13885 | CHROME CHROME | NOTES: 1,4,5,10 |
| S-1 | SINK (ADA) | ELKAY | ELUH316-6"-ADA | STAINLESS STEEL | FAUCET | DELTA | 2176-LHP-H24-A24 | CHROME | NOTES: 3,10,26 |
| S-2 | SINK (DOUBLE) (ADA) | ELKAY | ELUH3118-6"-ADA | STAINLESS STEEL | FAUCET | DELTA | 2176-LHP-H24-A24 | CHROME | NOTES: 3,7,26 |
| SH-1 | SHOWER (MEN'S) | – | – | – | SHOWER VALVE HEAD | BRADLEY | IC-EF-HD-SF-ST-BP | CHROME | NOTES: 11,12,15,18 |
| SH-2 | SHOWER (WOMEN'S) | – | – | – | SHOWER VALVE HEAD | BRADLEY | IC-EF-HD-SF-ST-BP | CHROME | NOTES: 11,12,15,18 |
| SH-3 | SHOWER (ACCESSIBLE) | – | – | – | SHOWER VALVE HEAD, HAND SHOWER | BRADLEY ALSON | HN-HD-300-EF #6200 2DSBX | CHROME STAINLESS STEEL | NOTES: 11,12,13,15,16,18 |
| DF-1 | DRINKING FOUNTAIN | ELKAY | EDFPBM117C | STAINLESS STEEL | – | – | – | – | NOTES: 1,2 |
| MSB-1 | MOP SERVICE BASIN | FIAT | MSB2424 | WHITE | FAUCET | ZURN | Z843M1-CS-RC | CHROME | NOTES: 14,17 |
| EEW/ ES-1 | EMERGENCY EYE WASH/ EMERGENCY SHOWER | HAWS | 8336 | PVC PLASTIC COMBINATION | – | – | – | – | NOTES: 23,24 |
| GDU-1 | GARBAGE DISPOSAL UNIT | IN-SINK ERATOR | BADGER 5 | – | | | | | NOTE: 9 |
| | | | | | | | | | |

NOTES:
1. 1/2"x3/8" FLEX. SUPPLIES W/ L.K. STOPS. 17 GA. P-TRAP W/ C.O.
2. WITH CARRIER, SEE SPECIFICATION.
3. 1/2" FLEX SUPPLIES W/ L.K. STOPS. 1-1/2" 17 GA. P-TRAP W/ C.O.
4. 0.5 GPM FLOW RESTRICTOR.
5. TRUEBRO #103 INSULATION KIT FOR DRAIN, AND SUPPLIES.
6. WITH WALL MOUNTED CONCEALED ARM CARRIER.
7. CRUMB CUP STRAINER.
8. BATTERY OPERATED FLUSH VALVE.
9. 1/2 H.P., 120/60/1
10. GRID STRAINER.
11. WITH 2" FD-1.
12. HEAVY-DUTY SHOWER VALVE.
13. LESS GRAB BAR, SEAT & CURTAIN, ITEMS TO BE FURNISHED BY G.C.
14. WITH INTEGRAL STOPS & CHECK STOPS.
15. 2.5 GPM HEAD WITH DELUXE HEAD & BACK PLATE.
16. 1 FIXED HEAD, 1 HAND HELD HEAD, 60" STAINLESS STEEL HOSE, INLINE BACKFLOW PREVENTER, DIVERTOR VALVE.
17. 24"x24"x10" DEEP UNIT, VACUUM BREAKER, PAIL HOOK. WALL BRACE & CHECK STOPS.
18. CO-ORDINATE MOUNTING HEIGHT OF SHOWER HEAD W/ ARCHITECT.
19. MOUNT @ 15" FROM FLOOR TO RIM.
20. MOUNT @ 18" FROM FLOOR TO RIM.
21. MOUNT @ 24" FROM FLOOR TO RIM.
22. MOUNT @ 17" FROM FLOOR TO RIM.
23. WITH PULL ROD & STAY OPEN VALVE.
24. WITH TMV-2 FOR TEPID WATER.
25. COORDINATE WITH ARCHITECT ON SEAT COLOR.
26. 1.5 GPM FLOW RESTRICTOR.

## PLUMBING FIXTURE CONNECTION SCHEDULE

| PLAN CODE | FIXTURE | PIPE SIZE (INCHES, MINIMUM) WASTE TRAP & ARM | WASTE VERT. DRAIN | VENT (MIN.) | COLD WATER SUPPLY (MIN.) | COLD WATER CONNECTION (ACTUAL) | HOT WATER SUPPLY (MIN.) | HOT WATER CONNECTION (ACTUAL) | REMARKS |
|---|---|---|---|---|---|---|---|---|---|
| WC | WATER CLOSET | INT. | 4" | 2" | 1" | 1" | – | – | |
| U | URINAL | INT. | 2" | 1-1/2" | 3/4" | 3/4" | – | – | |
| L | LAVATORY | 1-1/2" | 2" | 1-1/2" | 1/2" | 3/8" | 1/2" | 3/8" | |
| S | SINK | 1-1/2" | 2" | 1-1/2" | 1/2" | 1/2" | 1/2" | 1/2" | |
| SH | SHOWER | 2" | 2" | 2" | 1/2" | 1/2" | 1/2" | 1/2" | |
| DF | DRAINKING FOUNTAIN | 1-1/2" | 2" | 1-1/2" | 1/2" | 3/8" | – | – | |
| WH | WALL HYDRANT | – | – | – | 3/4" | 3/4" | – | – | |
| ESE | EMERGENCY SHOWER/ EYEWASH | – | – | – | 1-1/4" | – | 1-1/4" | – | TEPID WATER |
| MSB | MOP SERVICE BASIN | 3" | 3" | 2" | 1/2" | 1/2" | 1/2" | 1/2" | |

## MISCELLANEOUS PLUMBING EQUIPMENT SCHEDULE

| CODE | DESCRIPTION | MANUFACTURER | MODEL | FINISH | REMARKS |
|---|---|---|---|---|---|
| PET-1 | PLUMBING EXPANSION TANK | AMTROL | ST-60-V-C | STEEL | NOTE: 1 |
| TMV-1 | THERMOSTATIC MIXING VALVE ASSEMBLY | LAWLER | 802 | ROUGH BRASS | NOTE: 2 |
| TMV-2 | THERMOSTATIC MIXING VALVE ASSEMBLY | HAWS | 9202 | ROUGH BRASS | NOTE: 3 |
| TD-1 | TRENCH DRAIN | ACO | MINIKLASSIK #06750 WITH #P6788 HDPE GRATE | COORD. W/ ARCH | NOTE: 4 |
| DSN-1 | DOWNSPOUT NOZZLE | JOSAM | 25010 | CAST BRONZE | SEE DRAWINGS FOR SIZES |
| | | | | | |

NOTES:
1. ASME
2. 32 GPM @ MAX. 10 PSI LOSS
3. EMERGENCY SHOWER/ EMERGENCY EYEWASH
4. SEE ARCHITECTURAL DRAWINGS FOR LENGTH AND LAYOUT, M.C. TO PROVIDE & INSTALL PER MANUFACTURER'S RECOMMENDATION. PROVIDE DIMENSION SHOP DRAWING FOR ARCH/ENGINEERS APPROVAL.


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STEVEN D. FRANEY NEW MEXICO 10515 REGISTERED PROFESSIONAL ENGINEER 6-24-07

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| Bid Document | 6-24-07 |

Raton Aquatics Center
Raton, New Mexico

MCA Project No.: RAT 051-12

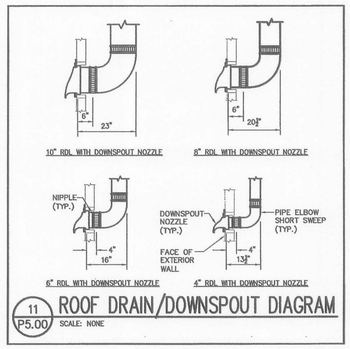
PLUMBING SCHEDULES

PROJECT ARCHITECT: John Quinn Pate, RA

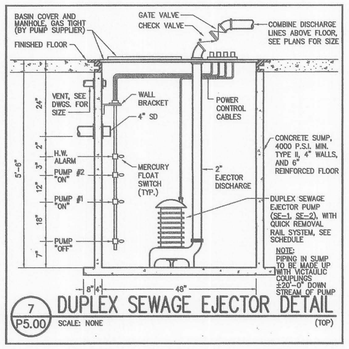
Drawn by: TRH
Checked by: TRH

P4.00


DT DATE: June 26, 2007 @ 10:11am
LE LOCATION: N:\Proj\Raton\dwg LAYOUT NAME: P4.00




11 P5.00 ROOF DRAIN/DOWNSPOUT DIAGRAM
SCALE: NONE




7 P5.00 DUPLEX SEWAGE EJECTOR DETAIL
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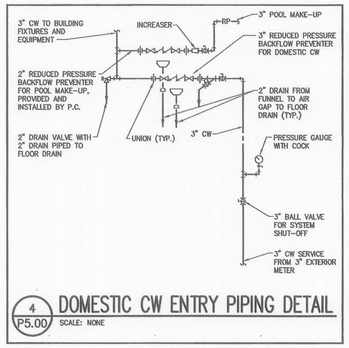
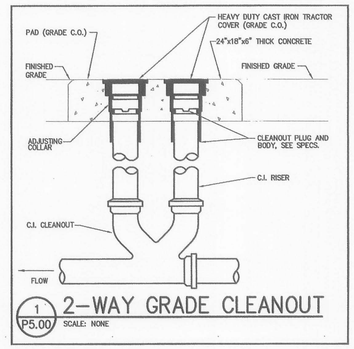



4 P5.00 DOMESTIC CW ENTRY PIPING DETAIL
SCALE: NONE




1 P5.00 2-WAY GRADE CLEANOUT
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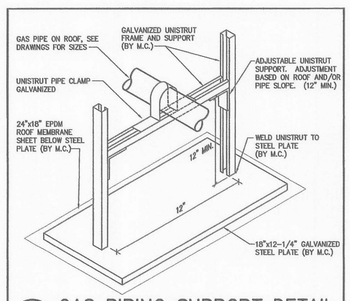


12 P5.00 GAS PIPING SUPPORT DETAIL
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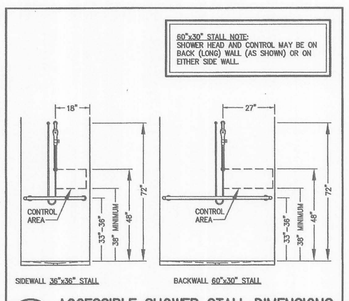
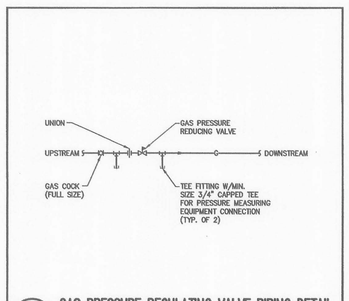



8 P5.00 ACCESSIBLE SHOWER STALL DIMENSIONS
SCALE: NONE




5 P5.00 GAS PRESSURE REGULATING VALVE PIPING DETAIL
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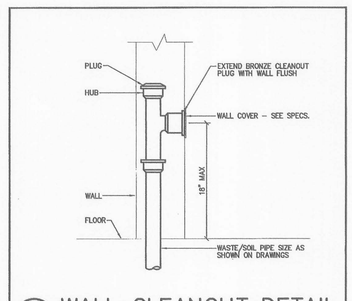
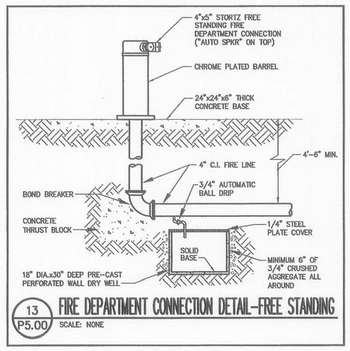
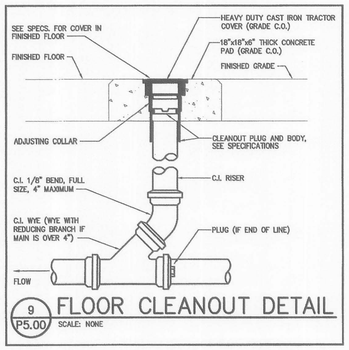


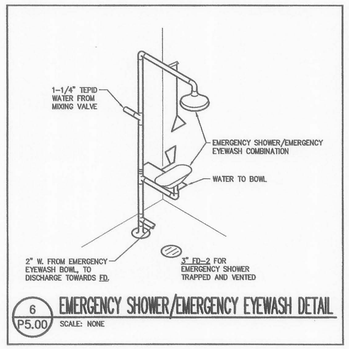

2 P5.00 WALL CLEANOUT DETAIL
SCALE: NONE



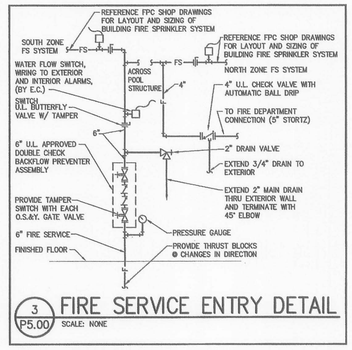

13 P5.00 FIRE DEPARTMENT CONNECTION DETAIL-FREE STANDING
SCALE: NONE



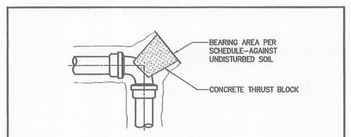

9 P5.00 FLOOR CLEANOUT DETAIL
SCALE: NONE




6 P5.00 EMERGENCY SHOWER/EMERGENCY EYEWASH DETAIL
SCALE: NONE




3 P5.00 FIRE SERVICE ENTRY DETAIL
SCALE: NONE

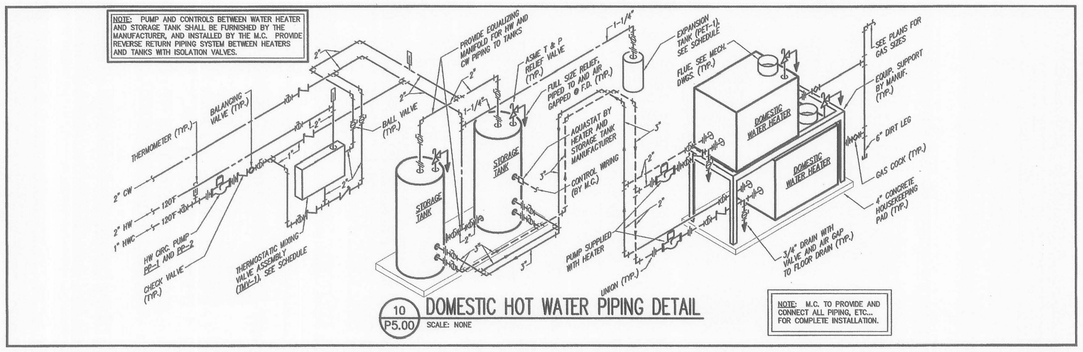



**THRUST BLOCK SCHEDULE**

| PIPE SIZE | REQUIRED BEARING AREA (SQ. FT.) | | | |
|---|---|---|---|---|
| | 90° ELL | 45° ELL | 22-1/2 ELL | TEE OR PLUG |
| 4" | 2.7 | 1.4 | 0.7 | 1.9 |
| 6" | 2.7 | 1.4 | 0.7 | 1.9 |
| 8" | 4.7 | 2.8 | 1.3 | 3.4 |

NOTE:
ABOVE TABLE IS BASED ON 1,500 LB/SF BEARING AND 100 P.S.I. FOR OTHER BEARING LOADS AND PRESSURES, ADJUST AREAS PROPORTIONATELY. THE TABLE NEGLECTS CENTRIFUGAL THRUST.

14 P5.00 THRUST BLOCK - CONCRETE
SCALE: NONE




10 P5.00 DOMESTIC HOT WATER PIPING DETAIL
SCALE: NONE

Molzen-Corbin & Associates
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303 306 0200
FAX 306 0222

The Ballard Group, Inc.
Mechanical Consulting Engineers
(303) 988-4514

NOTICE OF EXTENDED PAYMENT PROVISION: THIS CONTRACT ALLOWS THE OWNER TO MAKE PAYMENT WITHIN 45 DAYS AFTER SUBMISSION OF AN UNDISPUTED REQUEST FOR PAYMENT

STEVEN B. FRANZ NEW MEXICO 10948 6-25-07 REGISTERED PROFESSIONAL ENGINEER

| Issues/Revisions: | Date: |
|---|---|
| Bid Document | 6-24-07 |

Raton Aquatics Center
Raton, New Mexico

MCA Project No.: RAT 051-12

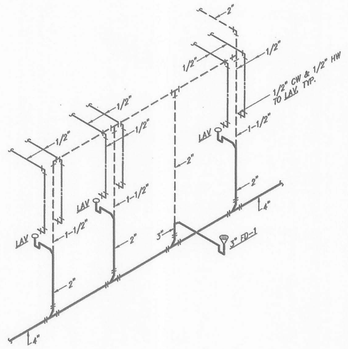
PLUMBING DETAILS

PROJECT ARCHITECT: John Quinn Pate, RA

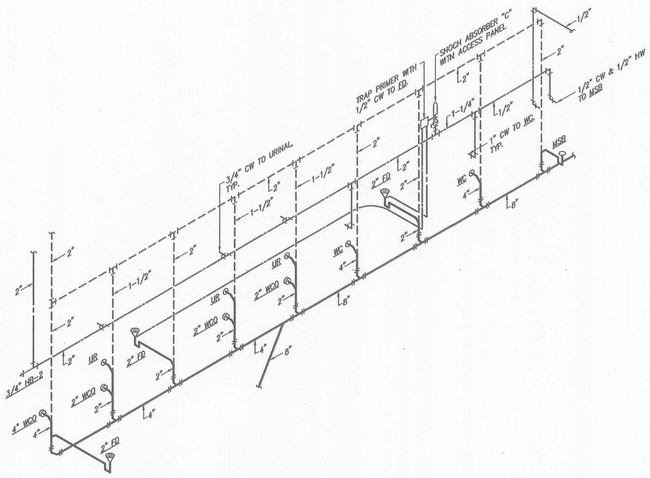
Drawn by: TRH
Checked by: TRH

P5.00

PLOT DATE: June 25, 2007 @ 11:13am
FILE LOCATION: N:\051\RT\PS-00.dwg; LAYOUT NAME: P5.00



1 P6.00 PLUMBING ISOMETRIC
SCALE: NONE



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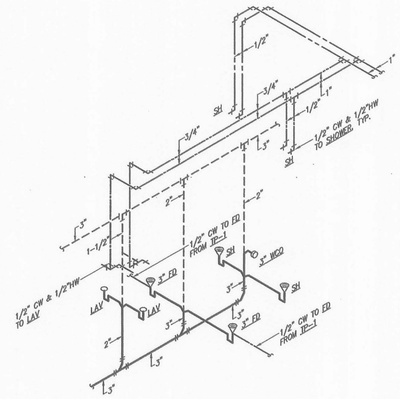
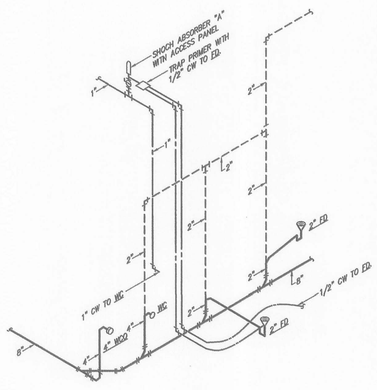
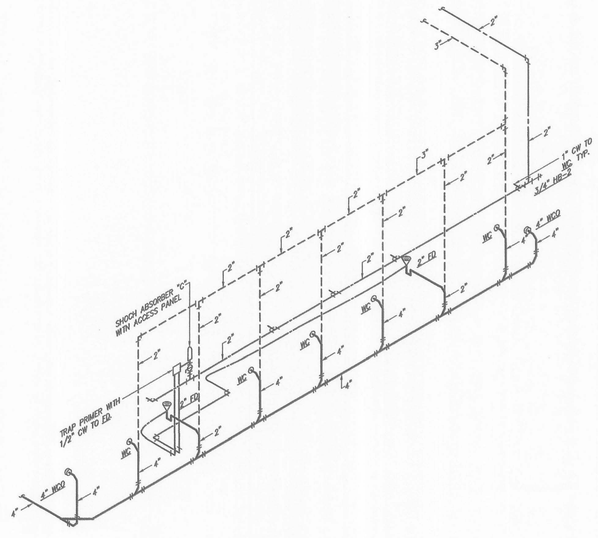
SCALE: NONE



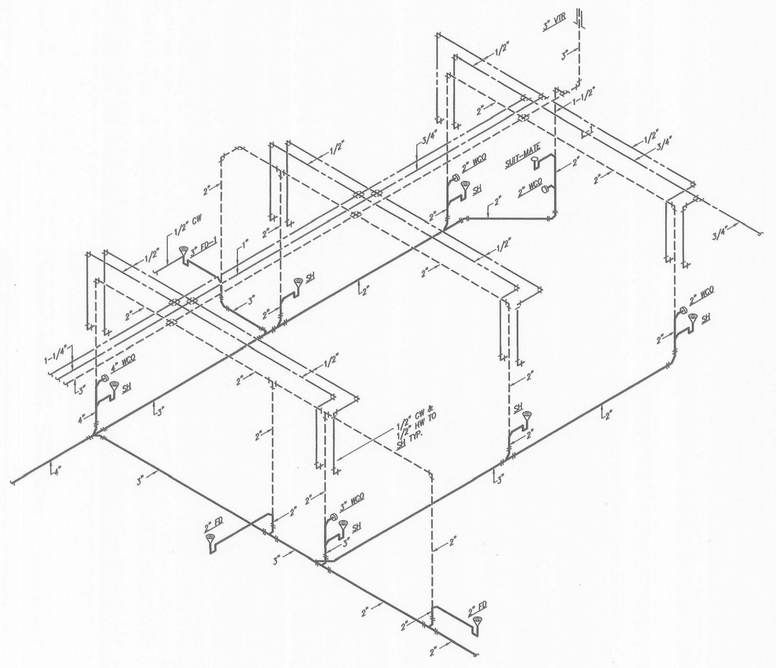
3 P6.00 PLUMBING ISOMETRIC
SCALE: NONE



4 P6.00 PLUMBING ISOMETRIC
SCALE: NONE



5 P6.00 PLUMBING ISOMETRIC
SCALE: NONE



6 P6.00 PLUMBING ISOMETRIC
SCALE: NONE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NOTICE OF EXTENDED PAYMENT PROVISION: THIS CONTRACT ALLOWS THE OWNER TO MAKE PAYMENT WITHIN 45 DAYS AFTER SUBMISSION OF AN UNDISPUTED REQUEST FOR PAYMENT

STEVEN D. FRANZ
NEW MEXICO
16515
6-25-07
LICENSED PROFESSIONAL ENGINEER

| Issues/Revisions: | Date: |
|---|---|
| Bid Document | 6-24-07 |

Raton Aquatics Center
Raton, New Mexico

MCA Project No.: RAT 051-12

PLUMBING ISOMETRICS

PROJECT ARCHITECT: John Quinn Pate, RA

Drawn by: TRH
Checked by: TRH

P6.00

PLOT DATE: June 25, 2007 @ 11:17am
FILE LOCATION: N:\05141\P6-00.dwg LAYOUT NAME: P6.00

## FEEDER SCHEDULE

25-Jun-07

| FEEDER NO. | FEEDER CONDUCTORS | PHASE | AMPS |
|---|---|---|---|
| SERVICE ENTRANCE FEEDERS | | | |
| S1 | 3[4-400KCMIL, 3" SCHED. 40 PVC] | 3-4W | 800 [4] |
| EQUIPMENT FEEDERS | | | |
| E1 | 2[3-250KCMIL, 1#1G, 2-1/2"C] | 3-3W+G | 400 |
| E2 | 2[4-250KCMIL, 1#1G, 2-1/2"C] | 3-4W+G | 400 |
| E3 | 2[3-4/0, 1#1G, 2-1/2"C] | 3-3W+G | 360 |
| E4 | 2[4-4/0, 1#1G, 2-1/2"C] | 3-4W+G | 360 |
| E5 | 2[3-3/0, 1#2G, 2"C] | 3-3W+G | 300 |
| E6 | 2[4-3/0, 1#2G, 2-1/2"C] | 3-4W+G | 300 |
| E7 | 2[3-2/0, 1#2G, 2"C] | 3-3W+G | 270 |
| E8 | 2[4-2/0, 1#2G, 2"C] | 3-4W+G | 270 |
| E9 | 3-350KCMIL, 1#2G, 2-1/2"C | 3-3W+G | 250 |
| E10 | 4-350KCMIL, 1#2G, 3"C | 3-4W+G | 250 |
| E11 | 3-250KCMIL, 1#4G, 2-1/2"C | 3-3W+G | 200 |
| E12 | 4-250KCMIL, 1#4G, 2-1/2"C | 3-4W+G | 200 |
| E13 | 3-4/0, 1#4G, 2"C | 3-3W+G | 180 |
| E14 | 4-4/0, 1#4G, 2-1/2"C | 3-4W+G | 180 |
| E15 | 3-3/0, 1#4G, 2"C | 3-3W+G | 155 |
| E16 | 4-3/0, 1#4G, 2"C | 3-4W+G | 155 |
| E17 | 3-2/0, 1#4G, 2"C | 3-3W+G | 135 |
| E18 | 4-2/0, 1#4G, 2"C | 3-4W+G | 135 |
| E19 | 3-1/0, 1#4G, 2"C | 3-3W+G | 120 |
| E20 | 4-1/0, 1#6G, 2"C | 3-4W+G | 100 |
| E21 | 3#1, 1#6G, 1-1/2"C | 3-3W+G | 85 |
| E22 | 4#1, 1#6G, 2"C | 3-4W+G | 85 |
| E23 | 3#2, 1#6G, 1-1/4"C | 3-3W+G | 75 |
| E24 | 4#2, 1#6G, 1-1/2"C | 3-4W+G | 75 |
| E25 | 3#3, 1#6G, 1-1/4"C | 3-3W+G | 65 |
| E26 | 4#3, 1#6G, 1-1/4"C | 3-4W+G | 65 |
| E27 | 3#4, 1#8G, 1-1/4"C | 3-3W+G | 55 |
| E28 | 4#4, 1#8G, 1-1/4"C | 3-4W+G | 55 |
| E29 | 3#6, 1#8G, 1"C | 3-3W+G | 40 |
| E30 | 4#6, 1#8G, 1-1/4"C | 3-4W+G | 40 |
| E31 | 3#8, 1#8G, 1"C | 3-3W+G | 30 |
| E32 | 4#8, 1#8G, 1"C | 3-4W+G | 30 |
| E33 | 3#10, 1#10G, 3/4"C | 3-3W+G | 20 |
| E34 | 4#10, 1#10G, 3/4"C | 3-4W+G | 20 |
| E35 | 3#12, 1#12G, 3/4"C | 3-3W+G | 15 |
| E36 | 4#12, 1#12G, 3/4"C | 3-4W+G | 15 |
| E37 | UNASSIGNED | | |
| E38 | UNASSIGNED | | |
| GROUNDING ELECTRODE CONDUCTORS [3] | | | |
| G1 | 1#8, 1/2"C | G | |
| G2 | 1#6, 1/2"C | G | |
| G3 | 1#4, 3/4"C | G | |
| G4 | 1#2, 3/4"C | G | |
| G5 | 1-1/0, 3/4"C | G | |
| G6 | 1-2/0, 3/4"C | G | |
| G7 | 1-3/0, 3/4"C | G | |

NOTE:

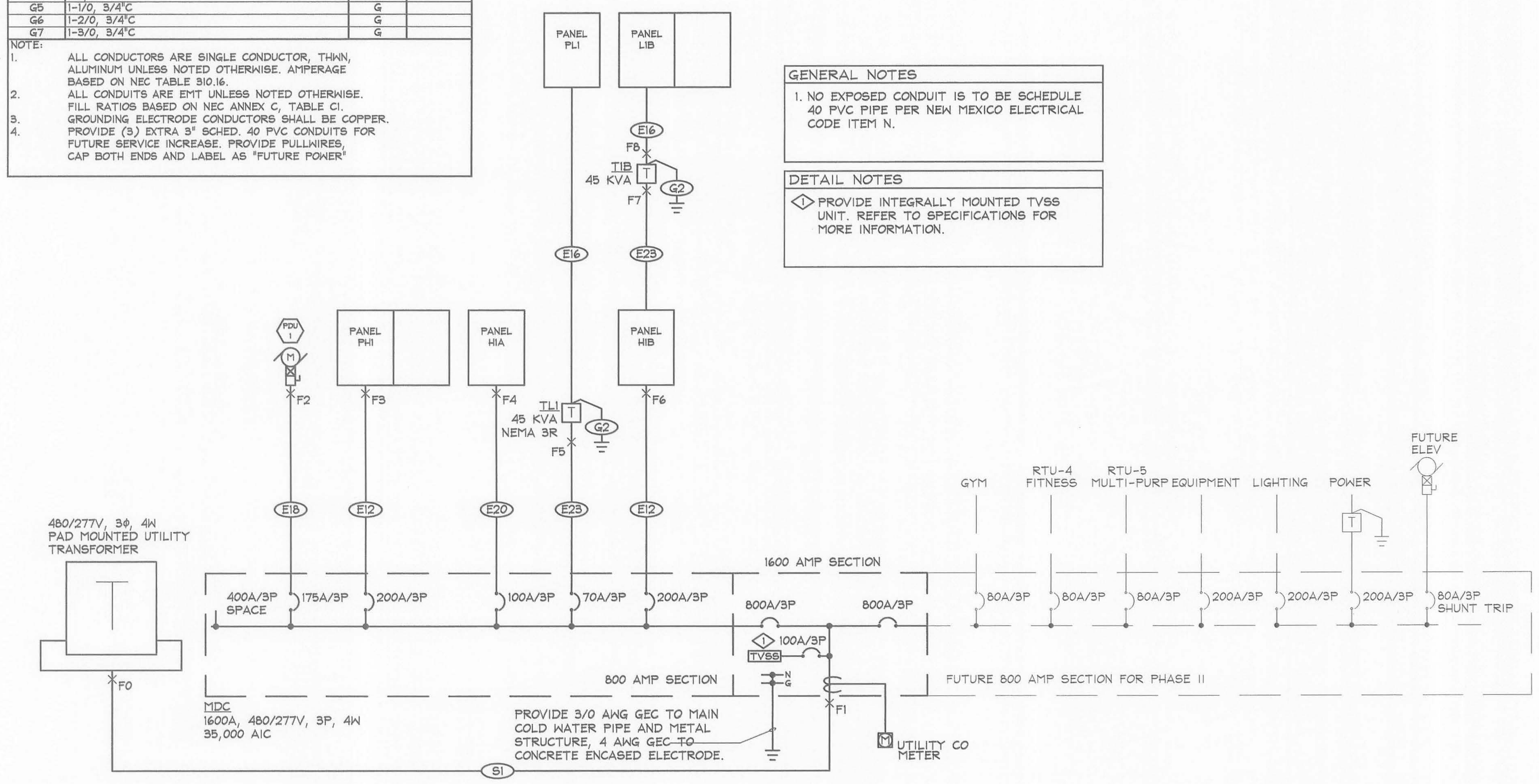
1. ALL CONDUCTORS ARE SINGLE CONDUCTOR, THWN, ALUMINUM UNLESS NOTED OTHERWISE. AMPERAGE BASED ON NEC TABLE 310.16.
2. ALL CONDUITS ARE EMT UNLESS NOTED OTHERWISE. FILL RATIOS BASED ON NEC ANNEX C, TABLE C1.
3. GROUNDING ELECTRODE CONDUCTORS SHALL BE COPPER.
4. PROVIDE (3) EXTRA 3" SCHED. 40 PVC CONDUITS FOR FUTURE SERVICE INCREASE. PROVIDE PULLWIRES, CAP BOTH ENDS AND LABEL AS "FUTURE POWER"

### GENERAL NOTES

1. NO EXPOSED CONDUIT IS TO BE SCHEDULE 40 PVC PIPE PER NEW MEXICO ELECTRICAL CODE ITEM N.

### DETAIL NOTES

(1) PROVIDE INTEGRALLY MOUNTED TVSS UNIT. REFER TO SPECIFICATIONS FOR MORE INFORMATION.




1 / E1.00 ELECTRICAL ONE-LINE DIAGRAM

NO SCALE

## 'MDC' DEMAND LOAD CALCULATION

6/25/2007

480 V SERVICE VOLTAGE LINE-TO-LINE
277 V SERVICE VOLTAGE LINE-TO-NEUTRAL
3 φ SERVICE PHASE
800 A SERVICE SIZE

PANEL LOADS

| LOAD TYPE* | PDU-1 | PH1 | H1A | PL1 | H1B | L1B | LOAD TYPE | TOTAL LOAD | | MULTIPLIER | | DEMAND LOAD | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | PANELS AND ADDITIONAL LOADS | | | | | | | | | | | | |
| CONTINUOUS LOAD | 0 | 37,270 | 14,670 | 0 | 22,478 | 0 | CONTINUOUS LOAD | 74,418 | x | 1.25 | = | 93,023 | VA |
| RECEPTACLE | | | | | | | RECEPTACLE | 10,150 | | | | | |
| FIRST 10,000 VA: | 0 | 0 | 0 | 1,440 | 0 | 8,710 | FIRST 10,000 VA: | 10,000 | x | 1.00 | = | 10,000 | VA |
| ADDITIONAL VA: | 0 | 0 | 0 | 0 | 0 | 0 | ADDITIONAL VA: | 150 | x | 0.50 | = | 75 | VA |
| LARGEST MOTOR | 110,075 | 28,266 | 0 | 1,656 | 0 | 1,176 | LARGEST MOTOR | 110,075 | x | 1.25 | = | 137,594 | VA |
| MOTOR | 0 | 77,064 | 0 | 5,304 | 57,948 | 4,115 | MOTOR | 175,529 | x | 1.00 | = | 175,529 | VA |
| EQUIPMENT | 0 | 0 | 0 | 18,431 | 37,225 | 22,930 | EQUIPMENT | 78,586 | x | 1.00 | = | 78,586 | VA |
| KITCHEN EQUIPMENT LOAD | 0 | 0 | 0 | 0 | 0 | 0 | KITCHEN EQUIPMENT LOAD | 0 | x | 1.00 | = | 0 | VA |
| PIECES OF EQUIPMENT | 0 | 0 | 0 | 0 | 0 | 0 | PIECES OF EQUIPMENT | 0 | | | | | |
| | | | | | | | TOTAL PANEL DEMAND LOAD: | | | | | 494,806 | VA |

TOTAL DEMAND LOAD

494,806 VA
595 A @ 277/480V, 3φ

SPARE CAPACITY

170,301 VA
205 A @ 277/480V, 3φ

NOTES:

* THE LOAD TYPES SHOWN RELATE DIRECTLY TO THE LOAD TYPES SHOWN IN THE PANEL (FEEDER) DEMAND LOAD CALCULATION SECTION OF EACH PANEL SCHEDULE. THE LOADS SHOWN ON THIS SCHEDULE ARE FROM THE PANEL SCHEDULES BEFORE THE DEMAND FACTOR WAS APPLIED.

## FAULT CURRENT CALCULATION TABLE

6/26/2007

| POINT | LENGTH (FT) | ISC AVAILABLE UPSTREAM | ISC AT EQUIP (I3ph) OR (IL-L) | ISC AT EQUIP (IL-N) | VOLTAGE AT START (VL-L) | VOLTAGE AT END (VL-L) | % V.D. OF FEEDER | TOTAL % V.D. AT BUS |
|---|---|---|---|---|---|---|---|---|
| F0 | - | -- | 13,498 | 20247 | -- | -- | -- | -- |
| F1 | 30 | 13,498 | 13,332 | N/A | 480.0 | 479.6 | 0.08% | 0.08% |
| F2 | 70 | 13,332 | 9,134 | N/A | 479.6 | 477.1 | 0.53% | 0.61% |
| F3 | 115 | 13,332 | 9,308 | N/A | 479.6 | 476.5 | 0.66% | 0.74% |
| F4 | 110 | 13,332 | 7,001 | N/A | 479.6 | 476.5 | 0.65% | 0.72% |
| F5 | 120 | 13,332 | 5,236 | N/A | 479.6 | 476.0 | 0.76% | 0.83% |
| F6 | 20 | 13,332 | 12,400 | N/A | 479.6 | 479.1 | 0.12% | 0.19% |
| F7 | 20 | 12,400 | 10,002 | N/A | 479.1 | 478.5 | 0.13% | 0.39% |
| F8 | -- | 10,002 | 3,527 | N/A | 208.0 | | | 0.00% |

NOTES:

1. CALCULATIONS WERE PERFORMED USING BUSSMANN "POINT-TO-POINT" METHOD.
2. CALCULATIONS WERE BASED ON A 500KVA TRANSFORMER WITH AN AVAILABLE FAULT OF 13,498 PROVIDED BY RATON PUBLIC SERVICE.
3. CALCULATIONS WERE BASED ON THE CURRENT BUILDING PLUS THE FUTURE PHASES TO ENSURE PANELS AND OTHER ELECTRICAL EQUIPMENT ARE PROPERLY BRACED FOR FUTURE SERVICE CONDITIONS.

## ABBREVIATIONS AND NOTATIONS

| | |
|---|---|
| AC | ABOVE COUNTER - VERIFY HEIGHT |
| AFC | ABOVE FINISHED CEILING |
| AFF | ABOVE FINISHED FLOOR |
| AFG | ABOVE FINISHED GRADE |
| AIC | AMPS INTERRUPTING CAPACITY |
| AL | ALUMINUM |
| AWG | AMERICAN WIRE GAGE |
| BFG | BELOW FINISHED GRADE |
| CB | CIRCUIT BREAKER |
| CCT | CIRCUIT |
| CPT | CONTROL POWER TRANSFORMER |
| CT | CURRENT TRANSFORMER |
| CU | COPPER |
| EC | ELECTRICAL CONTRACTOR |
| EF | EXHAUST FAN |
| EM | EMERGENCY |
| EWC | ELECTRIC WATER COOLER |
| FLA | FULL LOAD AMPS |
| G | GROUND |
| GEC | GROUNDING ELECTRODE CONDUCTOR |
| GFI | GROUND FAULT INTERRUPTER |
| GRMC | GALVANIZED RIGID METAL CONDUIT |
| HP | HORSEPOWER |
| IDF | INTERMEDIATE DISTRIBUTION FACILITY |
| IG | ISOLATED GROUND |
| MCA | MINIMUM CIRCUIT AMPACITY |
| MCB | MAIN CIRCUIT BREAKER |
| MDF | MAIN DISTRIBUTION FACILITY |
| MLO | MAIN LUGS ONLY |
| N | NEUTRAL |
| NC | NORMALLY CLOSED |
| NL | NIGHT LIGHT |
| NO | NORMALLY OPEN |
| NTS | NOT TO SCALE |
| OCP | OVERCURRENT PROTECTION |
| OL | OVERLOAD |
| OSP | OUTSIDE PLANT |
| SC | SHORT CIRCUIT |
| TR | TAMPER RESISTANT |
| TTB | TELEPHONE TERMINAL BOARD |
| UG | UNDERGROUND |
| UON | UNLESS OTHERWISE NOTED |
| VFD | VARIABLE FREQUENCY DRIVE |
| WP | WEATHERPROOF |
| WPIU | WEATHERPROOF IN-USE |
| XFMR | TRANSFORMER |
| (E) | EXISTING TO REMAIN |
| (ER) | EXISTING TO BE REMOVED |
| (N) | NEW DEVICE |
| (R) | EXISTING TO BE RELOCATED |
| (RL) | RELOCATED LOCATION |
| (X) | KITCHEN EQUIPMENT SCHEDULE NOTATION |
| [X] | ELECTRICAL EQUIPMENT SCHEDULE NOTATION |
| ⟨X⟩ | MECHANICAL EQUIPMENT SCHEDULE NOTATION |
| X | POOL EQUIPMENT SCHEDULE NOTATION |
| ◇X | DETAIL NOTE |
| △X | DELTA REVISION NOTE |
| —(X)— | ELECTRICAL FEEDER SIZE |

## SCHEMATIC WIRING SYMBOLS

- GROUND
- CURRENT TRANSFORMER
- CIRCUIT BREAKER, MOLDED-CASE, THERMAL-MAGNETIC
- FUSED DISCONNECT SWITCH
- 100A ENCLOSED CIRCUIT BREAKER, MOLDED-CASE, THERMAL-MAGNETIC
- NORMALLY CLOSED CONTACT
- NORMALLY OPEN CONTACT
- HP MOTOR
- G GENERATOR
- M METER

## POWER

- DUPLEX RECEPTACLE
- FOUR PLEX RECEPTACLE
- SINGLE RECEPTACLE
- COMBO RECEPTACLE/SWITCH
- SWITCHED DUPLEX RECEPTACLE
- SPLIT-WIRED RECEPTACLE
- CEILING RECEPTACLE (DUPLEX, FOURPLEX)
- SPECIAL PURPOSE RECEPTACLE
- FLOOR MOUNTED SPECIAL PURPOSE RECEPTACLE
- FLOOR RECEPTACLE (DUPLEX, FOURPLEX)
- FLOOR MOUNTED COMBINATION OUTLET BOX
- —WM— WIREMOLD SURFACE RACEWAY
- —PM— PLUGMOLD SURFACE RACEWAY
- CLOCK RECEPTACLE
- JUNCTION BOX
- WALL MOUNTED J-BOX
- FLOOR MOUNTED JUNCTION BOX
- ENCLOSED CIRCUIT BREAKER
- NON-FUSED DISCONNECT SWITCH
- FUSED DISCONNECT SWITCH
- MAGNETIC CONTROLLER (STARTER)
- COMBINATION STARTER/DISCONNECT SWITCH
- MOTOR CONNECTION
- POWER POLE

## SYSTEMS

- TTB
- TELECOMMUNICATION OUTLET (BLANK-STANDARD)
- TELECOMMUNICATION OUTLET - EXISTING
- TELEPHONE OUTLET (BLANK-STANDARD, F-FIRE, E-ELEVATOR, L-LIGHTING CONTROL)
- W WALL MOUNTED TELEPHONE OUTLET (W9-911 CONNECTION)
- DATA OUTLET (BLANK-STANDARD, P-POOL EQUIPMENT)
- FLOOR MOUNTED OUTLET (DATA, TELECOMMUNICATIONS, TELEPHONE)
- BROADBAND (TELEVISION) OUTLET
- S SPEAKER - PAGING AND OR SOUND SYSTEM
- MICROPHONE INPUT
- VOLUME CONTROL
- B DOOR BELL OR BUZZER
- Ø DOME LIGHT
- INTERCOM STATION
- A ANTENNA

## SWITCHING AND CONTROLS

- \$ SINGLE POLE SWITCH
- \$3 3-WAY SWITCH
- \$4 4-WAY SWITCH
- \$D DIMMER SWITCH
- \$K KEY OPERATED SWITCH
- \$P SWITCH WITH PILOT LIGHT
- \$TO THERMAL OVERLOAD SWITCH
- (T) THERMOSTAT
- (R) RELAY
- TC TIME CLOCK
- PHOTOCELL
- PUSH BUTTON

## LUMINAIRES

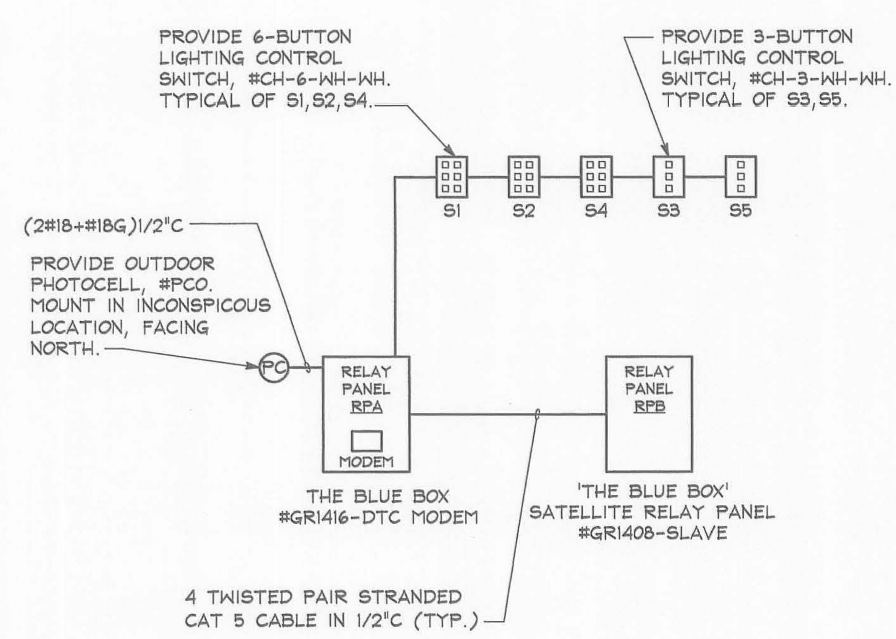
- LUMINAIRE TYPE, REFERENCING LUMINAIRE SCHEDULE, TYPICAL ALL FIXTURES. SUBSCRIPT, IF SHOWN, REFERENCES WALL SWITCH (A) = ALL TYPE "A" LUMINAIRES IN ROOM OR AREA UON.
- WALL MOUNTED LUMINAIRE
- SURFACE MOUNTED LUMINAIRE
- RECESSED LUMINAIRE
- DOWNLIGHT, EXTERIOR UPLIGHT
- SURFACE CEILING FIXTURE
- SMALL PENDANT LUMINAIRE
- EXTERIOR BOLLARD, SURFACE CEILING FIXTURE
- LARGE PENDANT LUMINAIRE
- WALLWASH LUMINAIRE
- ACCENT LUMINAIRE
- STEP LUMINAIRE
- STRIP LIGHT FIXTURE
- SURFACE OR PENDANT LIGHTING TRACK
- EXIT LIGHT - SHADED INDICATES FACE/ DIRECTIONAL ARROWS AS SHOWN
- BATTERY PACK EMERGENCY LIGHT
- EM EMERGENCY FIXTURE - SHADED
- (K) PORCELAIN LAMP HOLDER
- EXTERIOR AREA LIGHT
- EXTERIOR WALL PACK
- POOL LUMINAIRE
- EXTERIOR AREA LIGHT, ARROW INDICATES DIRECTION OF OPTICS

## FIRE ALARM

- FACP FIRE ALARM CONTROL PANEL
- FAAP FIRE ALARM ANNUNCIATOR/GRAPHIC MAP
- FA-RPS FIRE ALARM REMOTE POWER SUPPLY
- C CONTROL MODULE
- M MONITOR MODULE
- R HEAVY DUTY RELAY
- F MANUAL PULL STATION
- WALL MOUNTED ADA STROBE
- H WALL MOUNTED ADA STROBE WITH HORN
- S WALL MOUNTED ADA STROBE WITH SPEAKER
- H WALL MOUNTED HORN
- S WALL MOUNTED SPEAKER
- S FA CEILING MOUNTED SPEAKER
- AMP AMPLIFIER
- MH ELECTROMAGNETIC DOOR HOLD OPEN
- SPRINKLER FLOW SWITCH
- SPRINKLER TAMPER SWITCH
- T THERMAL DETECTOR
- P PHOTOELECTRIC SMOKE DETECTOR
- D DUCT SMOKE DETECTOR
- S SINGLE STATION SMOKE DETECTOR
- REMOTE INDICATING LIGHT
- TS REMOTE INDICATING LIGHT WITH TEST SWITCH
- D 120V. MOTORIZED SMOKE DAMPER
- RA RESCUE ASSISTANCE PHONE
- F FIRE FIGHTERS PHONE JACK

## DISTRIBUTION AND RACEWAY

- SURFACE MOUNTED PANELBOARD
- RECESSED PANELBOARD
- T TRANSFORMER
- BRANCH CIRCUIT HOMERUN
- CONDUIT CONCEALED IN FLOOR OR UNDERGROUND
- CONDUIT EXPOSED OR CONCEALED IN WALL OR CEILING
- RACEWAY UP
- RACEWAY DOWN
- CAPPED CONDUIT




NOTES:

1. ALL PRODUCT NUMBERS REFER TO LC&D LIGHTING CONTROLS EQUIPMENT.
2. THE ELECTRICAL CONTRACTOR IS RESPONSIBLE FOR FURNISHING AND INSTALLING ALL NECESSARY COMPONENTS FOR A COMPLETE AND OPERATING LIGHTING CONTROL SYSTEM.
3. ALL INSTALLATIONS AND CONNECTIONS SHALL BE MADE PER THE MANUFACTURER'S INSTALLATION INSTRUCTIONS.
4. REFER TO LIGHTING CONTROL SWITCH SCHEDULE AND RELAY PANEL SCHEDULES ON SHEET E1.20 FOR MORE INFORMATION.
5. PROVIDE TELEPHONE CONNECTION TO MASTER RELAY PANEL MODEM.

2 / E1.00 LIGHTING CONTROLS ONE-LINE DIAGRAM

NO SCALE


Molzen-Corbin & Associates
2701 Miles Road S.E.
Albuquerque, New Mexico 87106
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303.984.8603 fax
ies@iesystems-inc.com



NOTICE OF EXTENDED PAYMENT PROVISION: THIS CONTRACT ALLOWS THE OWNER TO MAKE PAYMENT WITHIN 45 DAYS AFTER SUBMISSION OF AN UNDISPUTED REQUEST FOR PAYMENT


CRAIG M. PERRY
NEW MEXICO
17328
LICENSED PROFESSIONAL ENGINEER
6-26-07

| Issues/Revisions: | Date: |
|---|---|
| Bid Document | 6-24-07 |

Raton Aquatics Center
Raton, New Mexico

MCA Project No.: RAT 051-12

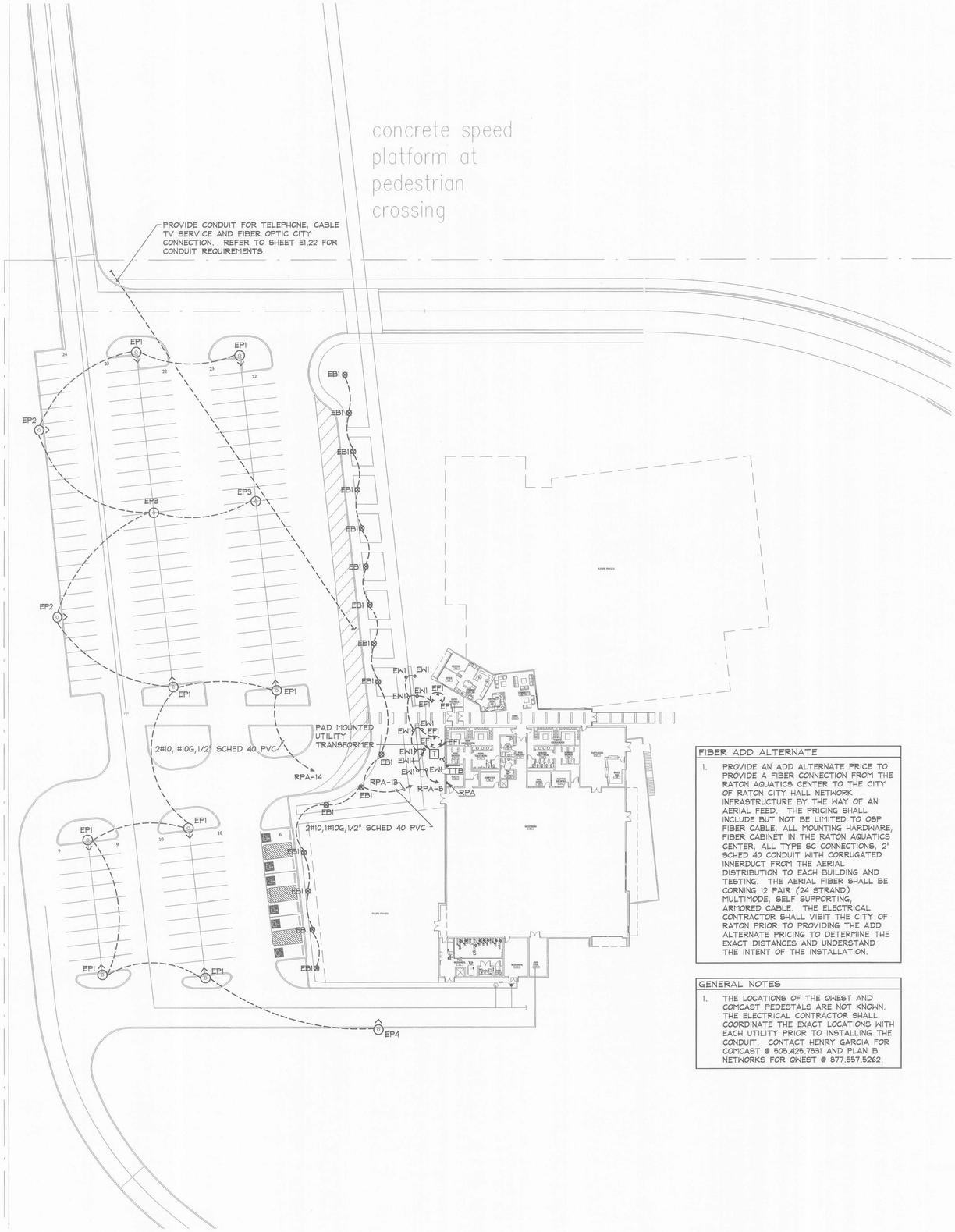
ELECTRICAL ONE-LINES/ LEGEND

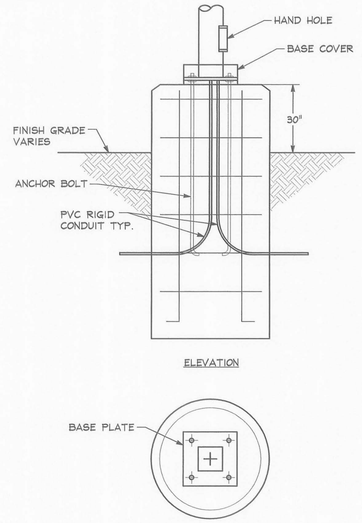
PROJECT ARCHITECT: John Quinn Pate, RA

Drawn by: KLY
Checked by: LEY/CMP

E1.00


M:\26038-01 Aquatic Center-Raton,N.M\Elec\E1.00-One-Line.dwg, 6/26/2007 1:21:38 PM, KLY, ARCH expand E1 (30.00 x 42.00 Inches), 1:1




2 / E1.10 **POLE BASE DETAIL**

NO SCALE

NOTE:
COORDINATE DIMENSIONS, AND STRUCTURAL REQUIREMENTS WITH STRUCTURAL ENGINEER.

**FIBER ADD ALTERNATE**

1. PROVIDE AN ADD ALTERNATE PRICE TO PROVIDE A FIBER CONNECTION FROM THE RATON AQUATICS CENTER TO THE CITY OF RATON CITY HALL NETWORK INFRASTRUCTURE BY THE WAY OF AN AERIAL FEED. THE PRICING SHALL INCLUDE BUT NOT BE LIMITED TO OSP FIBER CABLE, ALL MOUNTING HARDWARE, FIBER CABINET IN THE RATON AQUATICS CENTER, ALL TYPE SC CONNECTIONS, 2" SCHED 40 CONDUIT WITH CORRUGATED INNERDUCT FROM THE AERIAL DISTRIBUTION TO EACH BUILDING AND TESTING. THE AERIAL FIBER SHALL BE CORNING 12 PAIR (24 STRAND) MULTIMODE, SELF SUPPORTING, ARMORED CABLE. THE ELECTRICAL CONTRACTOR SHALL VISIT THE CITY OF RATON PRIOR TO PROVIDING THE ADD ALTERNATE PRICING TO DETERMINE THE EXACT DISTANCES AND UNDERSTAND THE INTENT OF THE INSTALLATION.

**GENERAL NOTES**

1. THE LOCATIONS OF THE QWEST AND COMCAST PEDESTALS ARE NOT KNOWN. THE ELECTRICAL CONTRACTOR SHALL COORDINATE THE EXACT LOCATIONS WITH EACH UTILITY PRIOR TO INSTALLING THE CONDUIT. CONTACT HENRY GARCIA FOR COMCAST @ 505.425.7531 AND PLAN B NETWORKS FOR QWEST @ 877.557.5262.

NORTH

1 / E1.10 **ELECTRICAL SITE PLAN**

1"=30'-0"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| Issues/Revisions: | Date: |
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Raton Aquatics Center
Raton, New Mexico

MCA Project No.: RAT 051-12

ELECTRICAL SITE PLAN

PROJECT ARCHITECT: John Quinn Pate, RA

Drawn by: KLY
Checked by: LEY/CMP

E1.10

## LIGHTING RELAY PANEL SCHEDULE

25-Jun-07

| | | | |
|---|---|---|---|
| RELAY PANEL NAME: | RPA (MASTER) | LOCATION: MAIN ELECTRICAL ROOM |
| DESCRIPTION: | 16-CONTACTOR ENCLOSURE | |
| MOUNTING: | SURFACE | |
| CONTROL CIRCUIT: | LIB-38 | |

| RELAY # | RELAY VOLT | RELAY AMP | DESCRIPTION OF CONTROL | SWITCH | CIRCUIT | NOTES |
|---|---|---|---|---|---|---|
| 1 | 277 | 20 | LOBBY | S1 | H1B-1 | |
| 2 | 277 | 20 | CONTROL DESK | S1 | H1B-1 | |
| 3 | 277 | 20 | LOUNGE | S1 | H1B-1 | |
| 4 | 277 | 20 | LOUNGE | S1 | H1B-1 | |
| 5 | 277 | 20 | MENS LOCKER ROOM | S2 | H1B-3 | |
| 6 | 277 | 20 | WOMENS LOCKER ROOM | S2 | H1B-3 | |
| 7 | 277 | 20 | POOL CORRIDOR | S2 | H1B-1 | |
| 8 | 277 | 20 | EXTERIOR WALL AND COURTYARD | -- | H1B-19 | 2 |
| 9 | 277 | 20 | STAIR LIGHTS | -- | H1B-5 | 2 |
| 10 | 277 | 20 | EXTERIOR SCONCES/CANOPY | S2 | H1B-5 | 2 |
| 11 | 277 | 20 | PARTY ROOM | S3 | H1B-5 | |
| 12 | 277 | 20 | PARTY ROOM | S3 | H1B-5 | |
| 13 | 277 | 20 | EXTERIOR BOLLARDS | -- | H1B-19 | 2 |
| 14 | 277 | 20 | PARKING LOT | -- | H1B-21 | 2 |
| 15 | 277 | 20 | SPARE | | | |
| 16 | 277 | 20 | SPARE | | | |

NOTES
1. REFER TO LIGHTING CONTROL SWITCH SCHEDULE FOR MORE INFORMATION.
2. PHOTOCELL ON, ASTRONOMICAL TIMECLOCK OFF CONTROL.

## LIGHTING RELAY PANEL SCHEDULE

25-Jun-07

| | | | |
|---|---|---|---|
| RELAY PANEL NAME: | RPB (SLAVE) | LOCATION: POOL MECHANICAL ROOM |
| DESCRIPTION: | 8-CONTACTOR ENCLOSURE, NEMA 3R | |
| MOUNTING: | SURFACE | |
| CONTROL CIRCUIT: | PL1-2 | |

| RELAY # | RELAY VOLT | RELAY AMP | DESCRIPTION OF CONTROL | SWITCH | CIRCUIT | NOTES |
|---|---|---|---|---|---|---|
| 1 | 277 | 20 | WEST POOL | S2,S5 | H1A-1 | |
| 2 | 277 | 20 | WEST POOL | S2,S5 | H1A-3 | |
| 3 | 277 | 20 | EAST POOL | S2,S5 | H1A-5 | |
| 4 | 277 | 20 | EAST POOL | S2,S5 | H1A-7 | |
| 5 | 277 | 20 | WALL PACKS | -- | H1A-9 | 2 |
| 6 | 277 | 20 | SPARE | | | |
| 7 | 277 | 20 | SPARE | | | |
| 8 | 277 | 20 | SPARE | | | |

NOTES
1. REFER TO LIGHTING CONTROL SWITCH SCHEDULE FOR MORE INFORMATION.
2. PHOTOCELL ON, ASTRONOMICAL TIMECLOCK OFF CONTROL.

## LIGHTING CONTROL SWITCH SCHEDULE

6/25/2007

| SWITCH # | BUTTON | FUNCTION | BUTTON COLOR | RELAY | ENGRAVING | NOTES |
|---|---|---|---|---|---|---|
| S1 | 1 | ON/OFF | WHITE | RPA-1 | LOBBY | |
| | 2 | ON/OFF | WHITE | RPA-2 | DESK | |
| | 3 | ON/OFF | WHITE | RPA-3 | LOUNGE A | |
| | 4 | ON/OFF | WHITE | RPA-4 | LOUNGE B | |
| | 5 | ON/OFF | BLACK | RPA-1-3,5-7,11 RPB-1-4 | CLEANING | |
| | 6 | OFF | RED | ALL INTERIOR RELAYS | BUILDING OFF | |
| S2 | 1 | ON/OFF | WHITE | RPA-5 | MENS LOCKER | |
| | 2 | ON/OFF | WHITE | RPA-6 | WOMENS LOCKER | |
| | 3 | ON/OFF | WHITE | RPA-7 | POOL HALL | |
| | 4 | ON/OFF | WHITE | RPB-1,2 | POOL WEST | |
| | 5 | ON/OFF | WHITE | RPB-3,4 | POOL EAST | |
| | 6 | ON/OFF | WHITE | RPA-10 | PORCH | |
| S3 | 1 | ON/OFF | WHITE | RPA-11 | DOWNLIGHTS A | |
| | 2 | ON/OFF | WHITE | RPA-12 | DOWNLIGHTS B | |
| | 3 | OFF | RED | RPA-11,12 | OFF | |
| S4 | 1 | ON/OFF | WHITE | -- | | 1 |
| | 2 | ON/OFF | WHITE | -- | | |
| | 3 | ON/OFF | WHITE | -- | | |
| | 4 | ON/OFF | WHITE | -- | | |
| | 5 | ON/OFF | WHITE | -- | | |
| | 6 | ON/OFF | WHITE | -- | | |
| S5 | 1 | ON/OFF | WHITE | RPB-1,2 | POOL WEST | |
| | 2 | ON/OFF | WHITE | RPB-3,4 | POOL EAST | |
| | 3 | OFF | RED | RPB-1,2,3,4 | OFF | |

NOTES
1. SWITCH IS FOR FUTURE EXPANSIONS

## OCCUPANCY SENSOR SCHEDULE

| KEY | DESCRIPTION | MFR. & CAT. NO. | Notes |
|---|---|---|---|
| ⊞1 | WALL MOUNTED, DUAL TECHNOLOGY, MOTION SENSOR, DUAL LEVEL, USER OFF | NOVITAS 01-DL401 | |
| ⊞2 | CEILING MOUNTED, INFRARED MOTION SENSOR | NOVITAS 01-110 | 1 |
| ⊞3 | WALL MOUNTED, DUAL TECHNOLOGY, MOTION SENSOR, USER OFF | NOVITAS 01-250 | |

NOTES:
1. PROVIDE SWITCH PACK, NOVITAS #13-051

## LUMINAIRE SCHEDULE

25-Jun-07

| KEY | DESCRIPTION | MANUFACTURER CATALOG NUMBER | LAMP QTY | LAMP TYPE | VOLTS | MOUNTING INFORMATION | NOTES | MAX VA |
|---|---|---|---|---|---|---|---|---|
| D1 | COMPACT FLUORESCENT, 6" DIA RECESSED CAN W/LENS, ELEC BALLAST | LITHONIA LF6 2/26DTT MVOLT GEB10 WLP F6L4 | 2 | CFQ26W/G24Q/835 | 277 | RECESSED | | 56 |
| D2 | COMPACT FLUORESCENT, 6" DIA RECESSED CAN W/LENS, ELEC BALLAST | LITHONIA LF6 1/26DTT MVOLT GEB10 WLP F6L4 | 1 | CFQ26W/G24Q/835 | 277 | RECESSED | | 28 |
| D3 | COMPACT FLUORESCENT, 6" DIA RECESSED CAN, ELEC BALLAST | LITHONIA LF6 1/26DTT MVOLT GEB10 WLP F601AZ | 1 | CFQ26W/G24Q/835 | 277 | RECESSED | | 28 |
| D4 | COMPACT FLUORESCENT, 6" DIA RECESSED CAN W/LENS, ELEC BALLAST | LITHONIA LP6F 18DTT MVOLT GEB10 WLP 6L4 | 1 | CFQ18W/G24Q/835 | 277 | RECESSED | | 22 |
| D5 | COMPACT FLUORESCENT, 6" DIA RECESSED CAN, ELEC BALLAST | LITHONIA LF6 2/13DTT MVOLT GEB10 WLP F602AZ DS | 2 | CFQ13W/G24Q/835 | 277 | RECESSED | 2 | 32 |
| F1 | FLUORESCENT, 2'X4' RECESSED TROFFER ELEC. BALLAST | LITHONIA 2RT5 28T5 GEB95S LPM835P | 2 | F28W/T5/835 | 277 | RECESSED | | 65 |
| F2 | FLUORESCENT, 4' STRIP, ELEC BALLAST | LITHONIA MS5 2 28T5 MVOLT GEB10PS WG | 2 | F28W/T5/835 | 277 | SURFACE | | 65 |
| F5 | FLUORESCENT, 4' RECESSED LINEAR ACRYLIC STRIP, ELEC. BALLAST | PINNACLE E4A-1T5HO-4'-FL-277-WH | 1 | F54W/T5/835 | 277 | RECESSED GYPSUM | | 65 |
| F6 | FLUORESCENT, 8' PENDANT LINEAR ACRYLIC STRIP, ELEC. BALLAST | PINNACLE EX4-A-N-2T5-8'-AC48ST-277-2-W | 4 | F28W/T5/835 | 277 | PENDANT +9'-0" AFF | 2 | 130 |
| J | COMPACT FLUORESCENT, JELLY JAR WALL MOUNT, ELECTRONIC BALLAST | CANLET 6802FCF-22-OG-01 | 1 | CFQ26W/G24Q/835 | 277 | SURFACE | | 28 |
| LP1 | METAL HALIDE, 28 METER LONG LIGHT PIPE, DUAL ILLUMINATORS, MAG. BALLAST | INSIGHT WL10-1000/28M/90/AC-6"/277/TW/TEX | 2 | MVR1000/U/BT37 | 277 | UNISTRUT | 4 | 2200 |
| P2 | COMPACT FLUORESCENT, 11" DIA BLUE GLASS PENDANT, ELEC. BALLAST | TRANSLITE SONOMA ATC1-UB-PN-F26-WC | 1 | CFTR26W/GX24Q/835 | 277 | PENDANT 7' AFF TO BOF | | 28 |
| X1 | LED, GREEN LETTERS ON WHITE BACKGROUND, THERMOPLASTIC | LITHONIA LQM S W 3 G 120/277 EL N | | FURNISHED W/ UNIT | 120/277 | UNIVERSAL | | 1 |
| XY1 | LED/HALOGEN GREEN LETTERS, WHITE BACKGROUND, NICKEL CADMIUM BATTERY | LITHONIA LHGM S W 1 G 120/277 N | | FURNISHED W/ UNIT | 120/277 | UNIVERSAL | | 5 |
| XY2 | LED/HALOGEN GREEN LETTERS, WHITE BKG., WET LOC., LEAD BATTERY -30F | EELP INC CWLEXGWEM MOD-LEAD BATTERY (-30F) | | FURNISHED W/ UNIT | 120/277 | UNIVERSAL | | 25 |
| Y1 | HALOGEN, NICKLE CADMIUM FROG EYE BATTERY PACK | LITHONIA ELM DL | | FURNISHED W/ UNIT | 120/277 | UNIVERSAL | 1 | 5 |
| YY1 | HALOGEN, EXTERIOR EGRESS BATTERY PACK, NICKEL CADMIUM BATTERY | LITHONIA AFN DB EXT | | FURNISHED W/ UNIT | 120/277 | UNIVERSAL | | 6 |
| EB1 | METAL HALIDE, EXTERIOR BOLLARD MAGNETIC BALLAST | KIM VRB1/70MH277/LG-P | 1 | MXR70/U/MED/O | 277 | GROUND | | 90 |
| EC1 | COMPACT FLUORESCENT, LOW PROFILE SURFACE LIGHT, ELEC. BALLAST | PACE ILLUMINATION EUWS 4050 SMALL PLT42 277 TAL | 1 | CFTR42W/GX24Q/830 | 277 | SURFACE | | 48 |
| EF1 | METAL HALIDE, FLOOD LIGHT MAG. BALLAST | LUMASCAPE LS461-35WMH-AW-CS | 1 | CMH35/T/U/830/G12 | 277 | GRADE | | 55 |
| EP1 | METAL HALIDE, POLE MOUNTED PUCK LIGHT, TYPE 3 DIST., MAG. BALLAST | KIM FM/CC17P3/150MH277/LG-P | 1 | MXR150/U/MED/O | 277 | POLE 18' PH | 3 | 190 |
| EP2 | METAL HALIDE, POLE MOUNTED PUCK LIGHT, TYPE 3 DIST., HSS, MAG. BALLAST | KIM FM/CC17P3/150MH277/LG-P/HS | 1 | MXR150/U/MED/O | 277 | POLE 18' PH | 3 | 190 |
| EP3 | METAL HALIDE, POLE MOUNTED PUCK LIGHT, TYPE 5 DIST., MAG. BALLAST | KIM FM/CC17P5/150MH277/LG-P | 1 | MXR150/U/MED/O | 277 | POLE 18' PH | 3 | 190 |
| EP4 | METAL HALIDE, POLE MOUNTED PUCK LIGHT, TYPE 2 DIST., MAG. BALLAST | KIM FM/CC17P2/150MH277/LG-P/HS | 1 | MXR150/U/MED/O | 277 | POLE 18' PH | 3 | 190 |
| ES1 | COMPACT FLUORESCENT, EXTERIOR WALL SCONCE, ELEC. BALLAST | PACE ILLUMINATION EUWS 4050 SMALL PLT42 277 TAL | 1 | CFTR42W/GX24Q/830 | 277 | SURFACE +7'-0" BOF | | 48 |
| ESL | METAL HALIDE, RECESSED STEP LIGHT WITH LOUVER, MAG. BALLAST | HYDRELL 4456 50M 277 LLV LPI DDB | 1 | MXR50/U/MED | 277 | RECESSED +2'-6" | | 70 |
| EW1 | METAL HALIDE, UPLIGHT WALLWASH MAGNETIC BALLAST | LUMASCAPE LS343-223 A 1 82 AY 27 N 9 LS692 | 1 | CMH35/T/U/830/G12 | 277 | RECESSED IN GRADE | 5 | 55 |
| EWP | METAL HALIDE, FULL CUTOFF EXTERIOR WALL PACK, MAG. BALLAST | LITHONIA WFL2 70M RW 277 LPI DNA | 1 | MXR70/U/MED | 277 | SURFACE +11'-0" BOF | | 90 |

MOUNTING ABBREVIATIONS

AFF - ABOVE FINISHED FLOOR
BFC - BELOW FINISHED CEILING
RFD - RECESSED FIXTURE DEPTH
BOF - BOTTOM OF FIXTURE
COF - CENTER OF FIXTURE
TOF - TOP OF FIXTURE
PL - PENDANT LENGTH
PH - POLE HEIGHT

NOTES:
1. DAMP LOCATION IN POOL AREA ONLY.
2 FIXTURE IS TO BE DUAL LEVEL SWITCHED.
3 POLE SHALL BE KRS16-4120/FM/LG-P. POLE IS TO BE MOUNTED ON A 30" CONCRETE BASE. REFER TO SHEET E1.10 DETAIL 2.
4. MANUFACTURER TO PROVIDE PROPER HARDWARE THAT WILL ALLOW 6" OF AIRCRAFT CABLE TO BE MOUNTED FROM THE TOP OF THE LIGHT PIPE TO THE BOTTOM OF THE UNISTRUT.
5. PROVIDE HUMAN TOUCH TECHNOLOGY FOR ALL EXTERIOR INGRADE UPLIGHTS.


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| Bid Document | 6-24-07 |

Raton Aquatics Center
Raton, New Mexico

MCA Project No.: RAT 051-12

LIGHTING/
CONTROL
SCHEDULES

PROJECT ARCHITECT: John Quinn Pate, RA

Drawn by: KLY
Checked by: LEY/CMP

E1.20


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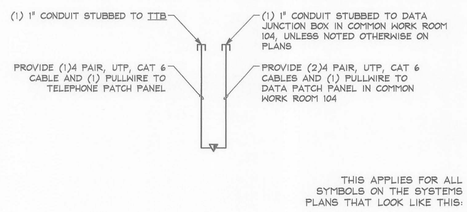
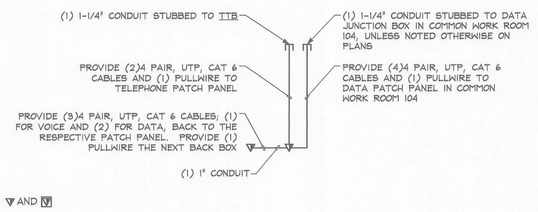
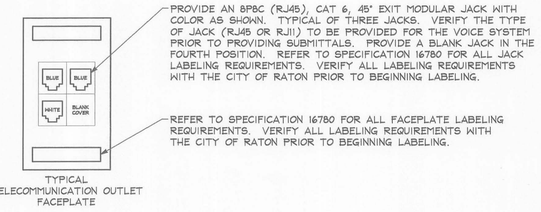


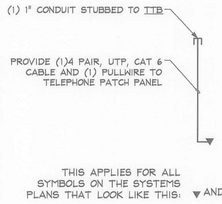



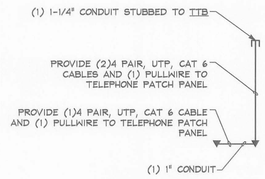



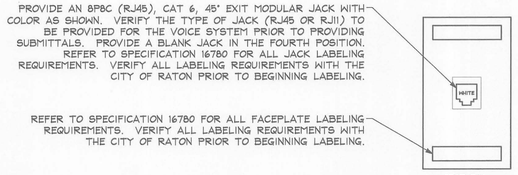

## 1 / E1.21 TELECOMMUNICATION OUTLET

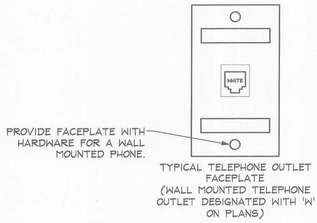
NO SCALE

NOTES:
1. ALL CABLING SHALL BE PLENUM RATED.
2. ROUTE CABLING FROM DEVICE TO APPROPRIATE DISTRIBUTION FACILITY.
3. PROVIDE PLASTIC BUSHING ON END OF STUBBED OUT CONDUIT.
4. THE MAXIMUM NUMBER OF OUTLETS ON ONE CONDUIT HOMERUN IS (2) AS SHOWN.
5. PROVIDE 1-1/4" TO 1" REDUCING COUPLERS AT THE JUNCTION BOXES WHERE REQUIRED.



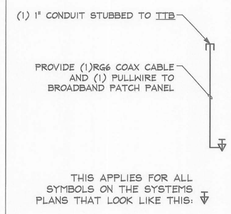



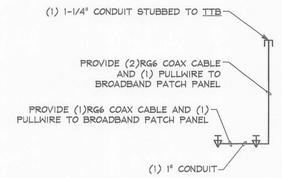



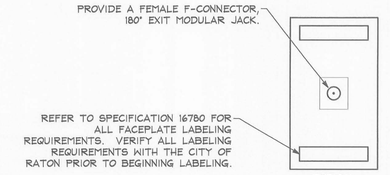

## 2 / E1.21 TELEPHONE OUTLET

NO SCALE

NOTES:
1. ALL CABLING SHALL BE PLENUM RATED.
2. ROUTE CABLING FROM DEVICE TO APPROPRIATE DISTRIBUTION FACILITY.
3. PROVIDE PLASTIC BUSHING ON END OF STUBBED OUT CONDUIT.
4. PROVIDE A WALL PLATE SUITABLE FOR MOUNTING A WALL PHONE FOR DEVICES MARKED WITH A 'W'.
5. THE MAXIMUM NUMBER OF OUTLETS ON ONE CONDUIT HOMERUN IS (2) AS SHOWN.
6. PROVIDE 1-1/4" TO 1" REDUCING COUPLERS AT THE JUNCTION BOXES WHERE REQUIRED.



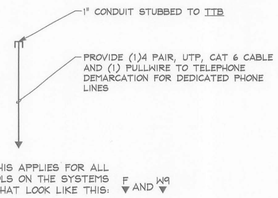




## 3 / E1.21 BROADBAND OUTLET

NO SCALE

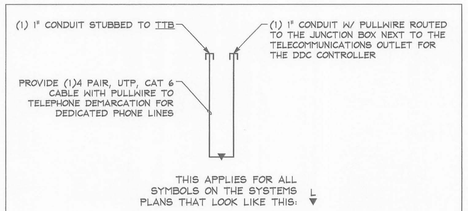
NOTES:
1. ALL CABLING SHALL BE PLENUM RATED.
2. ROUTE CABLING FROM DEVICE TO APPROPRIATE DISTRIBUTION FACILITY.
3. PROVIDE PLASTIC BUSHING ON END OF STUBBED OUT CONDUIT.
4. PROVIDE A WALL PLATE SUITABLE FOR MOUNTING A WALL PHONE FOR DEVICES MARKED WITH A 'W'.
5. THE MAXIMUM NUMBER OF OUTLETS ON ONE CONDUIT HOMERUN IS (2) AS SHOWN.
6. PROVIDE 1-1/4" TO 1" REDUCING COUPLERS AT THE JUNCTION BOXES WHERE REQUIRED.




## 4 / E1.21 DEDICATED TELEPHONE OUTLET

NO SCALE

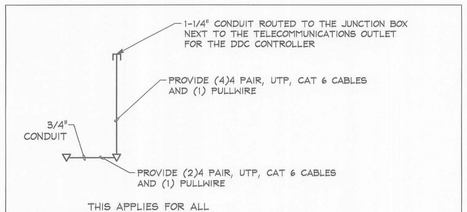
NOTES:
1. THIS DETAIL IS FOR THE (2) FIRE ALARM TELEPHONE LINES AND THE 911 EMERGENCY TELEPHONE LINE.
2. ALL CABLING SHALL BE PLENUM RATED.
3. ROUTE CABLING FROM ASSOCIATED EQUIPMENT TO QWEST DEMARCATION.
4. PROVIDE PLASTIC BUSHING ON END OF STUBBED OUT CONDUIT.




## 5 / E1.21 DEDICATED LIGHTING RELAY PANEL OUTLET

NO SCALE

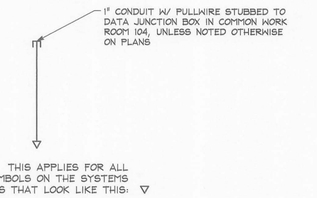
NOTES:
1. THIS DETAIL IS FOR THE LIGHTING CONTROL PANEL TELEPHONE LINE.
2. ALL CABLING SHALL BE PLENUM RATED.
3. ROUTE CABLING FROM ASSOCIATED EQUIPMENT TO QWEST DEMARCATION.
4. PROVIDE PLASTIC BUSHING ON END OF STUBBED OUT CONDUIT.




## 6 / E1.21 DEDICATED DATA OUTLET

NO SCALE

NOTES:
1. THIS DETAIL IS FOR THE WATER CHEMISTRY CONTROL AND MONITORING SYSTEMS. ALL REQUIREMENTS TO BE VERIFIED WITH THE POOL CONTRACTOR. PROVIDE CONNECTIONS ON BOTH ENDS OF CABLES AS REQUIRED.
2. ALL CABLING SHALL BE PLENUM RATED.
3. ROUTE CABLING FROM ASSOCIATED EQUIPMENT TO DDC CONTROLLER.
4. PROVIDE PLASTIC BUSHING ON END OF STUBBED OUT CONDUIT.
5. THE MAXIMUM NUMBER OF OUTLETS ON ONE CONDUIT HOMERUN IS (2) AS SHOWN.
6. PROVIDE 1-1/4" TO 1" REDUCING COUPLERS AT THE JUNCTION BOXES WHERE REQUIRED.




## 7 / E1.21 EMPTY DATA OUTLET

NO SCALE

NOTES:
1. PROVIDE A BLANK COVERPLATE.
2. PROVIDE PLASTIC BUSHING ON END OF STUBBED OUT CONDUIT.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303.984.8603 fax
les@lesystems-inc.com


NOTICE OF EXTENDED PAYMENT PROVISION: THIS CONTRACT ALLOWS THE OWNER TO MAKE PAYMENT WITHIN 45 DAYS AFTER SUBMISSION OF AN UNDISPUTED REQUEST FOR PAYMENT

CRAIG M. PERRY NEW MEXICO 17328 LICENSED PROFESSIONAL ENGINEER
6-26-07

| Issues/Revisions: | Date: |
|---|---|
| Bid Document | 6-24-07 |

Raton Aquatics Center
Raton, New Mexico

MCA Project No.: RAT 051-12

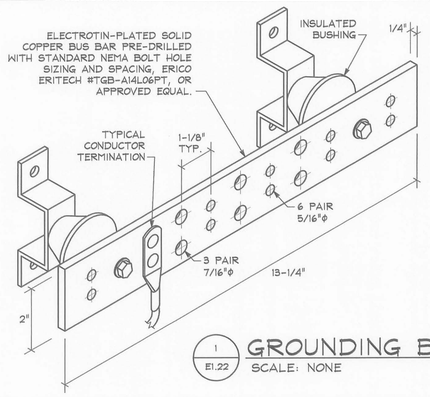
ELECTRICAL TELE/DATA DETAILS

PROJECT ARCHITECT: John Quinn Pate, RA

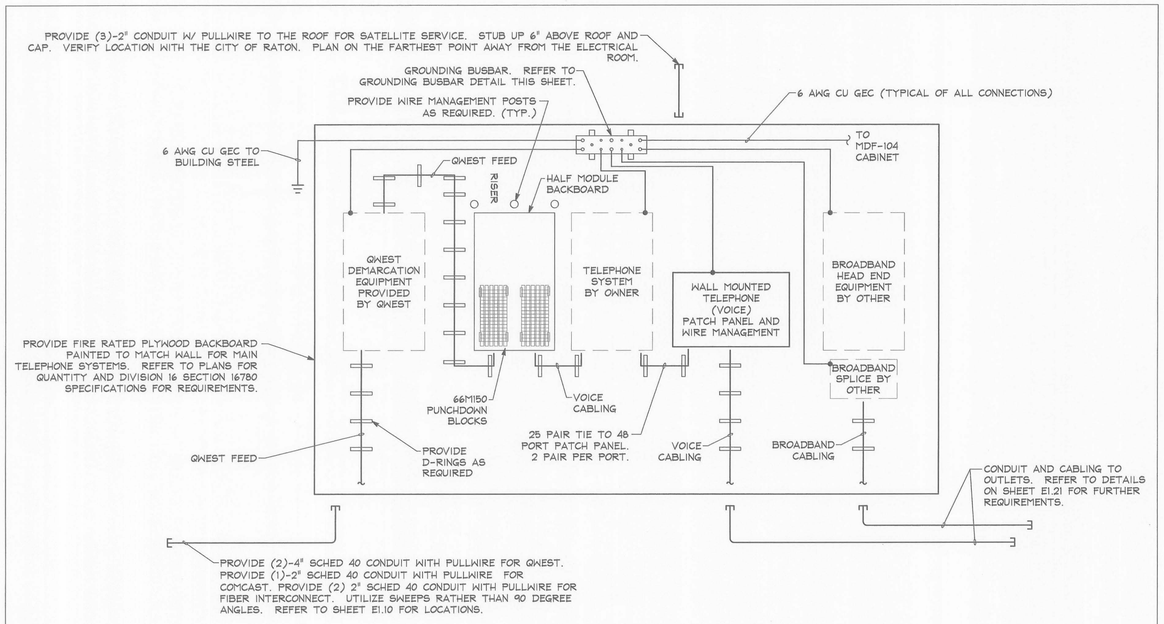
Drawn by: CJM
Checked by: LEY/CMP

E1.21


I:\2006\06-RAT Aquatic Center\Arch\ACP\Sht\E1.21-SYSTEMS DETAILS.dwg, 6/25/2007 4:38:31 PM, ACI, ANSI expand E1 (30.00 x 42.00) Portrait, 1:1

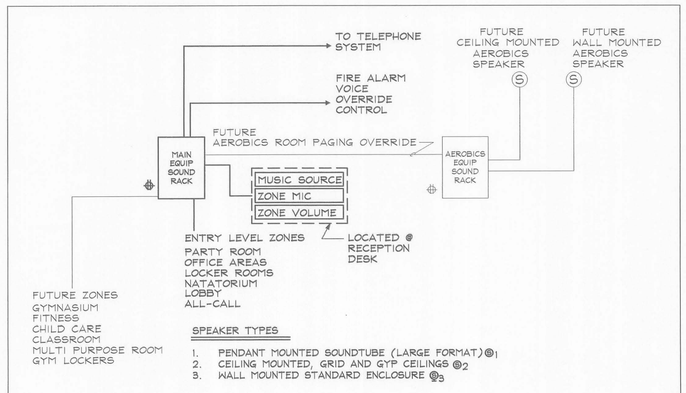



1 / E1.22 GROUNDING BUSBAR DETAIL
SCALE: NONE



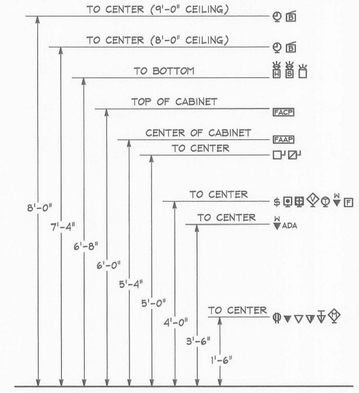

2 / E1.22 TELEPHONE TERMINAL BACKBOARD (TTB) ELEVATION
SCALE: NONE

NOTES:
1. REFER TO DIVISION 16-ELECTRICAL SPECIFICATIONS FOR REQUIRED EQUIPMENT AND SPECIFICATIONS.
2. PROVIDE EMT CONDUIT FOR CABLING ROUTED THROUGH AREAS WITH EXPOSED STRUCTURAL CEILINGS AND THROUGH INACCESSIBLE CEILINGS. COORDINATE CONDUIT SIZES WITH CABLE INSTALLER. PLENUM RATED CABLE SHALL BE PERMITTED ABOVE ACCESSIBLE CEILINGS.
3. ALL EXPOSED CONDUIT SHALL BE CONCEALED TO THE EXTENT POSSIBLE AND SHALL BE INSTALLED PARALLEL AND CLOSE TO STRUCTURAL MEMBERS. PAINT CONDUIT TO MATCH ADJACENT FINISHES.
4. PROVIDE BUSHINGS AND PULLCORDS FOR ALL CONDUITS.
5. PROVIDE PULLBOXES AS REQUIRED.




3 / E1.22 SOUND ONE-LINE DIAGRAM
SCALE: NONE

NOTES:
1. REFER TO SPEC SECTION 16770 FOR EQUIPMENT SPECIFICATIONS.
2. PROVIDE (2) 22 TWISTED PAIR FOR ALL SOUND WIRING IN A ¾"C WHERE EXPOSED.




4 / E1.22 TYPICAL DEVICE MOUNTING HEIGHTS
SCALE: NONE

NOTES:
1. MOUNT ELECTRICAL DEVICES AT HEIGHTS SHOWN UNLESS OTHERWISE NOTED ON THE DRAWINGS.
2. VERIFY DEVICE MOUNTING HEIGHTS WITH ARCHITECT PRIOR TO ROUGH-IN.

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CRAIG M. PERRY NEW MEXICO 17328 LICENSED PROFESSIONAL ENGINEER
6-26-07

| Issues/Revisions: | Date: |
|---|---|
| Bid Document | 6-24-07 |

Raton Aquatics Center
Raton, New Mexico

MCA Project No.: RAT 051-12

ELECTRICAL DETAILS

PROJECT ARCHITECT: John Quinn Pate, RA

Drawn by: CJM/KLY
Checked by: LEY/CMP

E1.22

M:\2005\RAT 051 Aquatic Center-Raton,N_M\Rat051_E-2-Details.dwg, 6/25/2007 4:37:45 PM, KLY, ARCH expand E1 (30.00) = 42.00 (Initials), 1:1

## PANEL ' H1A '

26-Jun-07

PROJECT: Aquatic Center Raton New Mexico — JOB NUMBER: 26038.01
LOCATION: POOL MECH — COMMENTS: NEMA 3R
FED FROM: MDC

VOLTAGE L-L: 480 V — BUS RATING: 100 AMPS
VOLTAGE L-G: 277 V — O.C. PROTECTION: M.L.O.
TYPE: 3PH/4W — S.C.RMS RATING: 14,000 A.I.C. FULLY RATED
MOUNTING: SURFACE

| CIR NO. | CIRCUIT BREAKER RATING | CIRCUIT BREAKER POLES | LOAD VA | LOAD TYPE | LOAD SERVED | BUS | LOAD SERVED | LOAD TYPE | LOAD VA | CIRCUIT BREAKER POLES | CIRCUIT BREAKER RATING | CIR NO. |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | 20 | 1 | 3300 | L | WEST POOL LTG | A | SPARE | | | 1 | 20 | 2 |
| 3 | 20 | 1 | 3373 | L | WEST POOL LTG | B | SPARE | | | 1 | 20 | 4 |
| 5 | 20 | 1 | 3300 | L | EAST POOL LTG | C | SPARE | | | 1 | 20 | 6 |
| 7 | 20 | 1 | 3300 | L | EAST POOL LTG | A | SPARE | | | 1 | 20 | 8 |
| 9 | 20 | 1 | 1397 | L | POOL STG, WALLPACKS | B | SPARE | | | 1 | 20 | 10 |
| 11 | 20 | 1 | | | SPARE | C | SPARE | | | 1 | 20 | 12 |
| 13 | | | | | SPACE | A | SPACE | | | | | 14 |
| 15 | | | | | SPACE | B | SPACE | | | | | 16 |
| 17 | | | | | SPACE | C | SPACE | | | | | 18 |

LOAD TYPE DESCRIPTIONS
L - LIGHTING, H - HEAT, R - RECEPTACLE, LM - LARGEST MOTOR, M - MOTOR, E - EQUIPMENT, KE - KITCHEN EQUIPMENT, S - SUBFEED

| TOTAL CONNECTED LOADS | PHASE A | PHASE B | PHASE C | PANEL |
|---|---|---|---|---|
| PANEL VA | 6,600 | 4,770 | 3,300 | 14,670 |
| PANEL A | 24 | 17 | 12 | 18 |
| PHASE BALANCING (BASED ON CONNECTED LOADS ABOVE) | A - B | B - C | C - A | |
| | 72% | 69% | 50% | |
| TOTAL DEMANDED LOADS | PHASE A | PHASE B | PHASE C | PANEL |
| PANEL VA | 8,250 | 5,963 | 4,125 | |
| FEED THRU VA | | | | |
| TOTAL VA | 8,250 | 5,963 | 4,125 | 18,338 |
| TOTAL A | 30 | 22 | 15 | 22 |

| PANEL (FEEDER) DEMAND LOAD CALCULATIONS — LOAD TYPE | LOAD | MULTIPLIER | DEMANDED LOAD |
|---|---|---|---|
| CONTINUOUS (L OR H) | 14,670 | x 1.25 | = 18,338 VA |
| RECEPTACLE | | | |
| FIRST 10,000 VA: | 0 | x 1.00 | = 0 VA |
| ADDITIONAL VA: | 0 | x 0.50 | = 0 VA |
| LARGEST MOTOR | 0 | x 1.25 | = 0 VA |
| MOTOR | 0 | x 1.00 | = 0 VA |
| EQUIPMENT | 0 | x 1.00 | = 0 VA |
| KITCHEN EQUIPMENT | 0 | x 1.00 | = 0 VA |
| PIECES OF EQUIPMENT: 0 | | | |
| SUBFEED | 0 | x 1.00 | = 0 VA |

NOTES:

## PANEL ' H1B '

26-Jun-07

PROJECT: Aquatic Center Raton New Mexico — JOB NUMBER: 26038.01
LOCATION: MAIN ELECTRICAL ROOM — COMMENTS:
FED FROM: MDC

VOLTAGE L-L: 480 V — BUS RATING: 200 AMPS
VOLTAGE L-G: 277 V — O.C. PROTECTION: M.L.O.
TYPE: 3PH/4W — S.C.RMS RATING: 14,000 A.I.C. FULLY RATED
MOUNTING: SURFACE

| CIR NO. | CIRCUIT BREAKER RATING | CIRCUIT BREAKER POLES | LOAD VA | LOAD TYPE | LOAD SERVED | BUS | LOAD SERVED | LOAD TYPE | LOAD VA | CIRCUIT BREAKER POLES | CIRCUIT BREAKER RATING | CIR NO. |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | 20 | 1 | 2638 | L | LOBBY,FAM LKR,OFF LTG | A | RTU-1 | M | 10392 | 3 | 45[1] | 2 |
| 3 | 20 | 1 | 3124 | L | LOCKER ROOM LTG | B | | M | 10392 | | | 4 |
| 5 | 20 | 1 | 2782 | L | PARTY,OFFICE,ELEC,LTG | C | | M | 10392 | | | 6 |
| 7 | 15 | 3 | 3048 | H | CUH-1 | A | RTU-2 | M | 4462 | 3 | 25 | 8 |
| 9 | | | 3048 | H | WEST VESTIBULE | B | | M | 4462 | | | 10 |
| 11 | | | 3048 | H | | C | | M | 4462 | | | 12 |
| 13 | 20 | 1 | | | SPARE | A | RTU-3 | M | 4462 | 3 | 25 | 14 |
| 15 | 20 | 1 | | | SPARE | B | | M | 4462 | | | 16 |
| 17 | 20 | 1 | | | SPARE | C | | M | 4462 | | | 18 |
| 19 | 20 | 1 | 2320 | L | BOLLARDS, COURTYARD | A | SPARE | | | 1 | 20 | 20 |
| 21 | 20 | 1 | 2470 | L | PARKING LOT | B | SPARE | | | 1 | 20 | 22 |
| 23 | 20 | 1 | | | SPARE | C | SPARE | | | 1 | 20 | 24 |
| 25 | 20 | 1 | | | SPARE | A | SPARE | | | 1 | 20 | 26 |
| 27 | 20 | 1 | | | SPARE | B | SPARE | | | 1 | 20 | 28 |
| 29 | 20 | 1 | | | SPARE | C | SPARE | | | 1 | 20 | 30 |
| 31 | | | | | SPACE | A | SPACE | | | | | 32 |
| 33 | | | | | SPACE | B | SPACE | | | | | 34 |
| 35 | | | | | SPACE | C | SPACE | | | | | 36 |
| 37 | | | | | SPACE | A | PANEL L1B VIA | E | 12853 | 3 | 70 | 38 |
| 39 | | | | | SPACE | B | TRANSFORMER | E | 11966 | | | 40 |
| 41 | | | | | SPACE | C | T1B | E | 12406 | | | 42 |

LOAD TYPE DESCRIPTIONS
L - LIGHTING, H - HEAT, R - RECEPTACLE, LM - LARGEST MOTOR, M - MOTOR, E - EQUIPMENT, KE - KITCHEN EQUIPMENT, S - SUBFEED

| TOTAL CONNECTED LOADS | PHASE A | PHASE B | PHASE C | PANEL |
|---|---|---|---|---|
| PANEL VA | 40,175 | 39,924 | 37,552 | 117,651 |
| PANEL A | 145 | 144 | 136 | 142 |
| PHASE BALANCING (BASED ON CONNECTED LOADS ABOVE) | A - B | B - C | C - A | |
| | 99% | 94% | 93% | |
| TOTAL DEMANDED LOADS | PHASE A | PHASE B | PHASE C | PANEL |
| PANEL VA | 42,177 | 42,085 | 39,010 | |
| FEED THRU VA | | | | |
| TOTAL VA | 42,177 | 42,085 | 39,010 | 123,271 |
| TOTAL A | 152 | 152 | 141 | 148 |

| PANEL (FEEDER) DEMAND LOAD CALCULATIONS — LOAD TYPE | LOAD | MULTIPLIER | DEMANDED LOAD |
|---|---|---|---|
| CONTINUOUS (L OR H) | 22,478 | x 1.25 | = 28,098 VA |
| RECEPTACLE | | | |
| FIRST 10,000 VA: | 0 | x 1.00 | = 0 VA |
| ADDITIONAL VA: | 0 | x 0.50 | = 0 VA |
| LARGEST MOTOR | 0 | x 1.25 | = 0 VA |
| MOTOR | 57,948 | x 1.00 | = 57,948 VA |
| EQUIPMENT | 37,225 | x 1.00 | = 37,225 VA |
| KITCHEN EQUIPMENT | 0 | x 1.00 | = 0 VA |
| PIECES OF EQUIPMENT: 0 | | | |
| SUBFEED | 0 | x 1.00 | = 0 VA |

NOTES:
[1] LOAD SHOWN INCLUDES 125% TIMES LARGEST MOTOR.

## PANEL ' L1B '

26-Jun-07

PROJECT: Aquatic Center Raton New Mexico — JOB NUMBER: 26038.01
LOCATION: MAIN ELECTRICAL ROOM — COMMENTS:
FED FROM: TRANSFORMER T1B

VOLTAGE L-L: 208 V — BUS RATING: 150 AMPS
VOLTAGE L-G: 120 V — O.C. PROTECTION: 150 A/3P M.C.B.
TYPE: 3PH/4W — S.C.RMS RATING: 10,000 A.I.C. FULLY RATED
MOUNTING: SURFACE

| CIR NO. | CIRCUIT BREAKER RATING | CIRCUIT BREAKER POLES | LOAD VA | LOAD TYPE | LOAD SERVED | BUS | LOAD SERVED | LOAD TYPE | LOAD VA | CIRCUIT BREAKER POLES | CIRCUIT BREAKER RATING | CIR NO. |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | 20 | 1 | 1440 | R | ELEC, M. LKR., LOBBY,COMP | A | CONTROL DESK | E | 760 | 1 | 20 | 2 |
| 3 | 20 | 1 | 1920 | E | MENS SUITMATE | B | CONTROL DESK | E | 760 | 1 | 20 | 4 |
| 5 | 20 | 1 | 180 | R | FAMILY SINK | C | CONTROL DESK | E | 760 | 1 | 20 | 6 |
| 7 | 20 | 1 | 1000 | E | SOUND | A | OFFICE 106 | E | 940 | 1 | 20 | 8 |
| 9 | 20 | 1 | 360 | R | COMPUTER | B | OFFICE 105 | E | 940 | 1 | 20 | 10 |
| 11 | 20 | 1 | 360 | R | COMPUTER | C | EMPLOYEE COUNTER | R | 360 | 1 | 20 | 12 |
| 13 | 20 | 1 | 360 | E | COMPUTER | A | COPY MACHINE | E | 1500 | 1 | 20 | 14 |
| 15 | 20 | 1 | 360 | E | COMPUTER | B | PRINTER | E | 680 | 1 | 20 | 16 |
| 17 | 30 | 1 | 2300 | E | MENS HAND | C | COMMON WORK AREA | E | 1160 | 1 | 20 | 18 |
| 19 | 20 | 1 | 180 | R | MENS SINK | A | LOUNGE | R | 1150 | 1 | 20 | 20 |
| 21 | 20 | 1 | 180 | R | MENS SINK | B | SNACK BAR | R | 180 | 1 | 20 | 22 |
| 23 | 20 | 1 | 180 | R | FAMILY SINK | C | SNACK BAR | R | 360 | 1 | 20 | 24 |
| 25 | 20 | 1 | 900 | R | LOBBY, W. LKR.,POOL HALL | A | SNACK BAR | R | 180 | 1 | 20 | 26 |
| 27 | 20 | 1 | 1920 | E | WOMENS SUITMATE | B | SNACK BAR | R | 360 | 1 | 20 | 28 |
| 29 | 30 | 1 | 2300 | E | WOMENS HAND | C | SNACK GDU-1 | M | 1176 | 1 | 20 | 30 |
| 31 | 20 | 1 | 180 | R | WOMENS SINK | A | SNACK BAR | R | 360 | 1 | 20 | 32 |
| 33 | 20 | 1 | 180 | R | WOMENS SINK | B | DECK | R | 720 | 1 | 20 | 34 |
| 35 | 20 | 1 | 940 | E | POOL OFFICE | C | EMPLOYEE GDU | LM | 1176 | 1 | 20 | 36 |
| 37 | 20 | 1 | 940 | E | AQUATICS OFFICE | A | RELAY PANEL RPA | E | 200 | 1 | 20 | 38 |
| 39 | 20 | 1 | 1330 | E | W. LKR, PARTY | B | COMPUTER | R | 360 | 1 | 20 | 40 |
| 41 | 20 | 1 | 500 | E | FACP | C | SPARE | | | 1 | 20 | 42 |
| 43 | 20 | 1 | 1000 | E | EMP. REFRIG. | A | AUTOMATIC DOORS | M | 1392 | 1 | 20 | 44 |
| 45 | 20 | 1 | 1176 | M | EF-1 | B | SPARE | | | 1 | 20 | 46 |
| 47 | 20 | 1 | 360 | E | COMPUTER | C | SPARE | | | 1 | 20 | 48 |
| 49 | 20 | 1 | 371 | M | EF-2 AND EF-5 | A | SPARE | | | 1 | 20 | 50 |
| 51 | 20 | 1 | 540 | R | ROOF RECEPS | B | SPARE | | | 1 | 20 | 52 |
| 53 | 20 | 1 | | | SPARE | C | SPARE | | | 1 | 20 | 54 |
| 55 | 20 | 1 | | | SPARE | A | SPARE | | | 1 | 20 | 56 |
| 57 | 20 | 1 | | | SPARE | B | SPARE | | | 1 | 20 | 58 |
| 59 | 20 | 1 | | | SPARE | C | SPARE | | | 1 | 20 | 60 |

LOAD TYPE DESCRIPTIONS
L - LIGHTING, H - HEAT, R - RECEPTACLE, LM - LARGEST MOTOR, M - MOTOR, E - EQUIPMENT, KE - KITCHEN EQUIPMENT, S - SUBFEED

| TOTAL CONNECTED LOADS | PHASE A | PHASE B | PHASE C | PANEL |
|---|---|---|---|---|
| PANEL VA | 12,853 | 11,966 | 12,112 | 36,931 |
| PANEL A | 107 | 100 | 101 | 103 |
| PHASE BALANCING (BASED ON CONNECTED LOADS ABOVE) | A - B | B - C | C - A | |
| | 93% | 99% | 94% | |
| TOTAL DEMANDED LOADS | PHASE A | PHASE B | PHASE C | PANEL |
| PANEL VA | 12,853 | 11,966 | 12,406 | |
| FEED THRU VA | | | | |
| TOTAL VA | 12,853 | 11,966 | 12,406 | 37,225 |
| TOTAL A | 107 | 100 | 103 | 103 |

| PANEL (FEEDER) DEMAND LOAD CALCULATIONS — LOAD TYPE | LOAD | MULTIPLIER | DEMANDED LOAD |
|---|---|---|---|
| CONTINUOUS (L OR H) | 0 | x 1.25 | = 0 VA |
| RECEPTACLE | | | |
| FIRST 10,000 VA: | 8,710 | x 1.00 | = 8,710 VA |
| ADDITIONAL VA: | 0 | x 0.50 | = 0 VA |
| LARGEST MOTOR | 1,176 | x 1.25 | = 1,470 VA |
| MOTOR | 4,115 | x 1.00 | = 4,115 VA |
| EQUIPMENT | 22,930 | x 1.00 | = 22,930 VA |
| KITCHEN EQUIPMENT | 0 | x 1.00 | = 0 VA |
| PIECES OF EQUIPMENT: 0 | | | |
| SUBFEED | 0 | x 1.00 | = 0 VA |

NOTES:

## PANEL ' PH1 '

26-Jun-07

PROJECT: Aquatic Center Raton New Mexico — JOB NUMBER: 26038.01
LOCATION: POOL MECH — COMMENTS: NEMA 3R
FED FROM: MDC

VOLTAGE L-L: 480 V — BUS RATING: 200 AMPS
VOLTAGE L-G: 277 V — O.C. PROTECTION: M.L.O.
TYPE: 3PH/4W — S.C.RMS RATING: 14,000 A.I.C. FULLY RATED
MOUNTING: SURFACE

| CIR NO. | CIRCUIT BREAKER RATING | CIRCUIT BREAKER POLES | LOAD VA | LOAD TYPE | LOAD SERVED | BUS | LOAD SERVED | LOAD TYPE | LOAD VA | CIRCUIT BREAKER POLES | CIRCUIT BREAKER RATING | CIR NO. |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | 50 | 3 | 5820 | M | PP-1 | A | PP-5 | M | 2106 | 3 | 15 | 2 |
| 3 | | | 5820 | M | LEISURE POOL | B | LEISURE POOL | M | 2106 | | | 4 |
| 5 | | | 5820 | M | WATER SLIDE | C | FEATURE PUMP | M | 2106 | | | 6 |
| 7 | 15 | 3 | 2106 | M | PP-2 | A | PP-6 | M | 3048 | 3 | 25 | 8 |
| 9 | | | 2106 | M | LESISURE POOL | B | SPA | M | 3048 | | | 10 |
| 11 | | | 2106 | M | HYDROTHERAPY PUMP | C | HYDROTHERAPY PUMP | M | 3048 | | | 12 |
| 13 | 80 | 3 | 9422 | LM | PP-3 | A | PP-7 | M | 3048 | 3 | 25 | 14 |
| 15 | | | 9422 | LM | LEISURE POOL | B | SPA | M | 3048 | | | 16 |
| 17 | | | 9422 | LM | RECIRCULATION PUMP | C | RECIRCULATION PUMP | M | 3048 | | | 18 |
| 19 | 15 | 3 | 2106 | M | PP-4 | A | AIR COOLED | M | 2854 | 3 | 20 | 20 |
| 21 | | | 2106 | M | LEISURE POOL | B | CONDENSING UNIT | M | 2854 | | | 22 |
| 23 | | | 2106 | M | VORTEX PUMPS | C | ACU-1 | M | 2854 | | | 24 |
| 25 | 20 | 1 | 3047 | H | UH-2 MECHANICAL | A | UH-3,4 | H | 3492 | 3 | 20 | 26 |
| 27 | 20 | 1 | 3047 | H | UH-3 POOL STORAGE | B | CHEMICAL ROOMS | H | 3492 | | | 28 |
| 29 | 20 | 1 | | | SPARE | C | | H | 3492 | | | 30 |
| 31 | 20 | 1 | | | SPARE | A | FAN COIL UNIT | H | 6900 | 3 | 30 | 32 |
| 33 | 20 | 1 | | | SPARE | B | FCU-1 | H | 6900 | | | 34 |
| 35 | 15 | 3 | 831 | M | DRAIN PUMP | C | | H | 6900 | | | 36 |
| 37 | | | 831 | M | PP-8 | A | AIR COMPRESSOR | M | 2106 | 3 | 20 | 38 |
| 39 | | | 831 | M | | B | PUMP | M | 2106 | | | 40 |
| 41 | 15 | 3 | 1663 | M | SE-C | C | PP-9 | M | 2106 | | | 42 |
| 43 | | | 1663 | M | SEWAGE EJECTOR | A | SPARE | | | 1 | 20 | 44 |
| 45 | | | 1663 | M | CONTROLLER | B | SPARE | | | 1 | 20 | 46 |
| 47 | 20 | 1 | | | SPARE | C | SPARE | | | 1 | 20 | 48 |
| 49 | 20 | 1 | | | SPARE | A | SPARE | | | 1 | 20 | 50 |
| 51 | 20 | 1 | | | SPARE | B | SPARE | | | 1 | 20 | 52 |
| 53 | 20 | 1 | | | SPARE | C | SPARE | | | 1 | 20 | 54 |
| 55 | | | | | SPACE | A | SPACE | | | | | 56 |
| 57 | | | | | SPACE | B | SPACE | | | | | 58 |
| 59 | | | | | SPACE | C | SPACE | | | | | 60 |

LOAD TYPE DESCRIPTIONS
L - LIGHTING, H - HEAT, R - RECEPTACLE, LM - LARGEST MOTOR, M - MOTOR, E - EQUIPMENT, KE - KITCHEN EQUIPMENT, S - SUBFEED

| TOTAL CONNECTED LOADS | PHASE A | PHASE B | PHASE C | PANEL |
|---|---|---|---|---|
| PANEL VA | 48,549 | 48,549 | 45,502 | 142,600 |
| PANEL A | 175 | 175 | 164 | 172 |
| PHASE BALANCING (BASED ON CONNECTED LOADS ABOVE) | A - B | B - C | C - A | |
| | 100% | 94% | 94% | |
| TOTAL DEMANDED LOADS | PHASE A | PHASE B | PHASE C | PANEL |
| PANEL VA | 54,264 | 54,264 | 50,456 | |
| FEED THRU VA | | | | |
| TOTAL VA | 54,264 | 54,264 | 50,456 | 158,984 |
| TOTAL A | 196 | 196 | 182 | 191 |

| PANEL (FEEDER) DEMAND LOAD CALCULATIONS — LOAD TYPE | LOAD | MULTIPLIER | DEMANDED LOAD |
|---|---|---|---|
| CONTINUOUS (L OR H) | 37,270 | x 1.25 | = 46,588 VA |
| RECEPTACLE | | | |
| FIRST 10,000 VA: | 0 | x 1.00 | = 0 VA |
| ADDITIONAL VA: | 0 | x 0.50 | = 0 VA |
| LARGEST MOTOR | 28,266 | x 1.25 | = 35,333 VA |
| MOTOR | 77,064 | x 1.00 | = 77,064 VA |
| EQUIPMENT | 0 | x 1.00 | = 0 VA |
| KITCHEN EQUIPMENT | 0 | x 1.00 | = 0 VA |
| PIECES OF EQUIPMENT: 0 | | | |
| SUBFEED | 0 | x 1.00 | = 0 VA |

NOTES:

## PANEL ' PL1 '

26-Jun-07

PROJECT: Aquatic Center Raton New Mexico — JOB NUMBER: 26038.01
LOCATION: POOL MECH — COMMENTS: NEMA 3R
FED FROM: TRANSFORMER TL1

VOLTAGE L-L: 208 V — BUS RATING: 225 AMPS
VOLTAGE L-G: 120 V — O.C. PROTECTION: 150 A/3P M.C.B.
TYPE: 3PH/4W — S.C.RMS RATING: 10,000 A.I.C. FULLY RATED
MOUNTING: SURFACE

| CIR NO. | CIRCUIT BREAKER RATING | CIRCUIT BREAKER POLES | LOAD VA | LOAD TYPE | LOAD SERVED | BUS | LOAD SERVED | LOAD TYPE | LOAD VA | CIRCUIT BREAKER POLES | CIRCUIT BREAKER RATING | CIR NO. |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | 20 | 1 | 1260 | R | POOL MECH,MECH,STG | A | RELAY PANEL RPB | E | 100 | 1 | 20 | 2 |
| 3 | 20 | 1 | 400 | E | DDC | B | WATER LEVEL CONTRLLER | E | 180 | 1 | 20 | 4 |
| 5 | 20[1] | 1 | 500 | E | ROBOTIC POOL CLEANING | C | CHEMICAL CONTROLLER | E | 720 | 1 | 20 [1] | 6 |
| 7 | 50 | 3 | 1800 | E | LEISURE POOL | A | CHEMICAL CONTROLLER | E | 720 | 1 | 20 [1] | 8 |
| 9 | | | 1800 | E | UV SYSTEM | B | PORTABLE POOL CLEANER | E | 2400 | 1 | 30 [1] | 10 |
| 11 | | | 1800 | E | | C | PP-1, WATER HEATER CIRC | M | 528 | 1 | 20 | 12 |
| 13 | 25 | 3 | 833 | E | SPA | A | SPARE | | | 1 | 20 | 14 |
| 15 | | | 833 | E | UV SYSTEM | B | CHLORINE PUMP | LM | 1656 | 1 | 30 | 16 |
| 17 | | | 833 | E | | C | CHLORINE PUMP | M | 1656 | 1 | 30 | 18 |
| 19 | 20 | 1 | 1392 | M | EF-3,EF-4 | A | SPARE | | | 1 | 20 | 20 |
| 21 | 20 | 1 | 240 | E | BOILER 1,2 IGNITION | B | SPARE | | | 1 | 20 | 22 |
| 23 | 20 | 1 | 1176 | E | BOILER 1 PUMP | C | CHEMICAL CONTROLLER | E | 720 | 1 | 20 [1] | 24 |
| 25 | 30 | 1 | 1656 | E | BOILER 2 PUMP | A | CHEMICAL CONTROLLER | E | 720 | 1 | 20 [1] | 26 |
| 27 | 20 | 1 | 864 | M | GWH-1 PUMP | B | SPARE | | | 1 | 20 | 28 |
| 29 | 20 | 1 | 864 | M | GWH-2 PUMP | C | SPARE | | | 1 | 20 | 30 |
| 31 | 20 | 1 | 500 | E | GWH-1 CONTROL | A | SPARE | | | 1 | 20 | 32 |
| 33 | 20 | 1 | 500 | E | GWH-2 CONTROL | B | SPARE | | | 1 | 20 | 34 |
| 35 | 20 | 1 | 180 | R | ROOF RECEP | C | SPARE | | | 1 | 20 | 36 |
| 37 | 20 | 1 | | | SPARE | A | SPARE | | | 1 | 20 | 38 |
| 39 | 20 | 1 | | | SPARE | B | SPARE | | | 1 | 20 | 40 |
| 41 | 20 | 1 | | | SPARE | C | SCARE | | | 1 | 20 | 42 |

LOAD TYPE DESCRIPTIONS
L - LIGHTING, H - HEAT, R - RECEPTACLE, LM - LARGEST MOTOR, M - MOTOR, E - EQUIPMENT, KE - KITCHEN EQUIPMENT, S - SUBFEED

| TOTAL CONNECTED LOADS | PHASE A | PHASE B | PHASE C | PANEL |
|---|---|---|---|---|
| PANEL VA | 8,981 | 8,873 | 8,977 | 26,831 |
| PANEL A | 75 | 74 | 75 | 74 |
| PHASE BALANCING (BASED ON CONNECTED LOADS ABOVE) | A - B | B - C | C - A | |
| | 99% | 99% | 100% | |
| TOTAL DEMANDED LOADS | PHASE A | PHASE B | PHASE C | PANEL |
| PANEL VA | 8,981 | 9,287 | 8,977 | |
| FEED THRU VA | | | | |
| TOTAL VA | 8,981 | 9,287 | 8,977 | 27,245 |
| TOTAL A | 75 | 77 | 75 | 76 |

| PANEL (FEEDER) DEMAND LOAD CALCULATIONS — LOAD TYPE | LOAD | MULTIPLIER | DEMANDED LOAD |
|---|---|---|---|
| CONTINUOUS (L OR H) | 0 | x 1.25 | = 0 VA |
| RECEPTACLE | | | |
| FIRST 10,000 VA: | 1,440 | x 1.00 | = 1,440 VA |
| ADDITIONAL VA: | 0 | x 0.50 | = 0 VA |
| LARGEST MOTOR | 1,656 | x 1.25 | = 2,070 VA |
| MOTOR | 5,304 | x 1.00 | = 5,304 VA |
| EQUIPMENT | 18,431 | x 1.00 | = 18,431 VA |
| KITCHEN EQUIPMENT | 0 | x 1.00 | = 0 VA |
| PIECES OF EQUIPMENT: 0 | | | |
| SUBFEED | 0 | x 1.00 | = 0 VA |

NOTES:
[1] PROVIDE GFI BREAKER.

## MECHANICAL EQUIPMENT SCHEDULE

25-Jun-07

| KEY | EQUIPMENT | LOAD (VA) | VOLTS | PH | BRANCH CIRCUIT CONDUCTORS | COND. | DISCONNECT SWITCH | DISCONNECT FUSE | CIRCUIT BREAKER | CIRCUIT | NOTES |
|---|---|---|---|---|---|---|---|---|---|---|---|
| ACU 1 | AIR COOLED CONDENSING UNIT, 10.3 MCA | 8563 | 480 | 3 | 3#12,1#12G | 1/2" | 30A/3P | | 20A/3P | PH1-20,22,24 | |
| B 1 | BOILER, IGNITION<br>1/2HP PUMP | 120<br>1176 | 120<br>120 | 1<br>1 | 2#12,1#12G | 1/2" | TOGGLE<br>THERMAL OL | | 20A/1P<br>20A/1P | PL1-21 (PART)<br>PL1-23 | |
| B 2 | BOILER, IGNITION | 120 | 120 | 1 | 2#12,1#12G | 1/2" | TOGGLE THERMAL OL | | 20A/1P | PL1-21 (PART) | |
| CUH 1 | CABINET UNIT HEATER 11 FLA | 9145 | 480 | 3 | 4#12,1#12G | 1/2" | INTEGRAL | | 15A/3P | H1B-7,9,11 | |
| EF 1 | EXHAUST FAN 1/2 HP | 1176 | 120 | 1 | 2#12,1#12G | 1/2" | THERMAL OL SWITCH | | 20A/1P | L1B-45 | |
| EF 2 | EXHAUST FAN 250W | 250 | 120 | 1 | 2#12,1#12G | 1/2" | THERMAL OL SWITCH | | 20A/1P | L1B-49 PART | |
| EF 3 | EXHAUST FAN 1/4 HP | 696 | 120 | 1 | 2#12,1#12G | 1/2" | INTEGRAL | | 20A/1P | PL1-19 PART | |
| EF 4 | EXHAUST FAN 1/4 HP | 696 | 120 | 1 | 2#12,1#12G | 1/2" | INTEGRAL | | 20A/1P | PL1-19 PART | |
| EF 5 | EXHAUST FAN 121W | 121 | 120 | 1 | 2#12,1#12G | 1/2" | THERMAL OL SWITCH | | 20A/1P | L1B-49 PART | |
| FCU 1 | FAN COIL UNIT 24.9 MCA | 20701 | 480 | 3 | 3#10,1#10G | 3/4" | 30A/3P | | 30A/3P | PH1-32,34,36 | |
| GDU 1 | GARBAGE DISPOSER 1/2 HP | 1176 | 120 | 1 | 2#12,1#12G | 1/2" | NEMA 5-20R | | 20A/1P | SEE DRAWINGS | |
| GWH 1 | WATER HEATER, CONTROL PUMP, 1/3 HP | 500<br>864 | 120<br>120 | 1<br>1 | 2#12,1#12G<br>2#12,1#12G | 1/2"<br>1/2" | TOGGLE<br>THERMAL OL | | 20A/1P<br>20A/1P | PL1-31<br>PL1-27 | |
| GWH 2 | WATER HEATER, CONTROL PUMP, 1/3 HP | 500<br>864 | 120<br>120 | 1<br>1 | 2#12,1#12G<br>2#12,1#12G | 1/2"<br>1/2" | TOGGLE<br>THERMAL OL | | 20A/1P<br>20A/1P | PL1-33<br>PLA-29 | |
| P 1 | BOILER B-2 PUMP 3/4HP | 1656 | 120 | 1 | 2#12,1#12G | 1/2" | THERMAL OL SWITCH | | 30A/1P | PL1-25 | |
| PDU 1 | POOL DEHUMIDIFICATION 132.4 MCA | 110075 | REFER TO ONE-LINE DIAGRAM | | | | | | | | |
| PP 1 | WATER HEATER CIRC. PUMP 1/6 HP | 528 | 120 | 1 | 2#12,1#12G | 1/2" | THERMAL OL SWITCH | | 20A/1P | PL1-12 | |
| RTU 1 | ROOF TOP UNIT 37.5 MCA | 31177 | 480 | 3 | 3#8,1#10G | 3/4" | 60A/3P | | 45A/3P | H1B-2,4,6 | |
| RTU 2 | ROOF TOP UNIT 18.5 MCA | 13385 | 480 | 3 | 3#12,1#12G | 1/2" | 30A/3P | | 25A/3P | H1B-8,10,12 | |
| RTU 3 | ROOF TOP UNIT 18.5 MCA | 13385 | 480 | 3 | 3#12,1#12G | 1/2" | 30A/3P | | 25A/3P | H1B-14,16,18 | |
| SE C | SEWAGE EJECTOR CONTROLLER, (2) 1-1/2 HP | 4988 | 480 | 3 | 3#12,1#12G | 1/2" | 30A/3P | | 15A/3P | PH1-41,43,45 | 1 |
| UH 1 | UNIT HEATER 11 FLA | 3047 | 277 | 1 | 2#12,1#12G | 1/2" | INTEGRAL | | 20A/1P | PH1-25 | |
| UH 2 | UNIT HEATER 11 FLA | 3047 | 277 | 1 | 2#12,1#12G | 1/2" | INTEGRAL | | 20A/1P | PH1-27 | |
| UH 3 | UNIT HEATER 6.3 FLA | 5238 | 480 | 3 | 4#12,1#12G | 1/2" | INTEGRAL | | 20A/3P | PH1-26,28,30 PART | |
| UH 4 | UNIT HEATER 6.3 FLA | 5238 | 480 | 3 | 4#12,1#12G | 1/2" | INTEGRAL | | 20A/3P | PH1-26,28,30 PART | |

GENERAL NOTES (FOR ALL SCHEDULED EQUIPMENT):
A. FIELD VERIFY ALL EQUIPMENT LOADS, VOLTAGES, AND RECOMMENDED OCP SIZING PRIOR TO ENERGIZING CIRCUIT.
B. PROVIDE 120V CONTROL WIRING AS REQUIRED PER MECHANICAL EQUIPMENT SCHEDULE.
C. FURNISH DISCONNECT SWITCHES LOCATED EXTERIOR TO THE STRUCTURE WITH NEMA 3R ENCLOSURES UNLESS OTHERWISE SPECIFIED.
D. PROVIDE 120V, WEATHER-PROOF, GFCI SERVICE RECEPTACLE WITHIN 25'0" OF ALL HEATING, AIR-CONDITIONING AND VENTILATING EQUIPMENT.
E. PROVIDE DUCT DETECTION FOR ALL AIR SUPPLY SYSTEMS OF GREATER THAN 2000 CFM CAPACITY, AND FOR ALL RETURN AIR SYSTEMS OF GREATER THAN 15,000 CFM CAPACITY SERVING MULTIPLE FLOORS, AND ADDITIONALLY AS REQUIRED BY LOCAL CODES AND AMENDMENTS.
F. REFER TO MECHANICAL PLANS FOR EXACT LOCATIONS OF ALL MECHANICAL EQUIPMENT AND ASSOCIATED CONTROLS.

NOTES SPECIFIC TO SCHEDULED EQUIPMENT (REFER TO NOTES COLUMN WITHIN SCHEDULE):
1. PROVIDE 480V, 3 PHASE CONNECTION TO CONTROLLER. CONNECTIONS TO PUMPS ARE BY OTHERS.

## GENERAL EQUIPMENT SCHEDULE (EQUIPMENT FURNISHED BY OTHERS)

25-Jun-07

| KEY | EQUIPMENT | LOAD (VA) | VOLTS | PH | BRANCH CIRCUIT CONDUCTORS | COND. | DISCONNECT | CIRCUIT BREAKER | CIRCUIT | NOTES |
|---|---|---|---|---|---|---|---|---|---|---|
| ADO | AUTOMATIC DOORS | 696 | 120 | 1 | 2#12,1#12G | 1/2" | | 20A/1P | SEE PLANS | 1 |
| CLN1 | ROBOTIC POOL CLEANER | 500 | 120 | 1 | 2#12,1#12G | 1/2" | -- | 20A/1P | SEE PLANS | |
| CLN2 | PORTABLE POOL CLEANER | 2400 | 120 | 1 | 2#10,1#10G | 1/2" | NEMA L5-30R | 30A/1P | SEE PLANS | |
| COMP | COMPUTER | 400 | 120 | 1 | 2#12,1#12G | 1/2" | -- | 20A/1P | SEE PLANS | |
| COPY | COPY MACHINE | 1500 | 120 | 1 | 2#12,1#12G | 1/2" | -- | 20A/1P | SEE PLANS | |
| DDC | MECANICAL DIGITAL CONTROLLER | 400 | 120 | 1 | 2#12,1#12G | 1/2" | -- | 20A/1P | SEE PLANS | |
| HDRY | HAIR DRYER | 2300 | 120 | 1 | 2#10,1#10G | 1/2" | -- | 30A/1P | SEE PLANS | |
| PRINT | PRINTER | 500 | 120 | 1 | 2#12,1#12G | 1/2" | -- | 20A/1P | SEE PLANS | |
| REF | REFRIGERATOR | 1000 | 120 | 1 | 2#12,1#12G | 1/2" | -- | 20A/1P | SEE PLANS | |
| SND | SOUND EQUIPMENT | 1000 | 120 | 1 | 2#12,1#12G | 1/2" | -- | 20A/1P | SEE PLANS | |
| SUIT | SUITMATE | 1920 | 120 | 1 | 2#12,1#12G | 1/2" | -- | 20A/1P | SEE PLANS | |
| TV | TELEVISION | 250 | 120 | 1 | 2#12,1#12G | 1/2" | -- | 20A/1P | SEE PLANS | |

GENERAL NOTES (FOR ALL SCHEDULED EQUIPMENT):
A. FIELD VERIFY ALL EQUIPMENT LOADS, VOLTAGES, AND RECOMMENDED OCP SIZING PRIOR TO ENERGIZING CIRCUIT.
B. PROVIDE DEDICATED NEUTRAL CONDUCTORS FOR EACH PIECE OF EQUIPMENT THAT REQUIRES A NEUTRAL CONDUCTOR.
C. FURNISH DISCONNECT SWITCHES LOCATED EXTERIOR TO THE STRUCTURE WITH NEMA 3R ENCLOSURES UNLESS OTHERWISE SPECIFIED.

NOTES SPECIFIC TO SCHEDULED EQUIPMENT (REFER TO NOTES COLUMN WITHIN SCHEDULE):
1. COORDINATE EXACT LOCATION OF DOOR MOTOR AND PUSH BUTTON WITH OWNER/ARCHITECT PRIOR TO INSTALL. PROVIDE 1/2" CONDUIT WITH PULLWIRE BETWEEN EACH PUSH BUTTON AND DOOR MOTOR.


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NOTICE OF EXTENDED PAYMENT PROVISION: THIS CONTRACT ALLOWS THE OWNER TO MAKE PAYMENT WITHIN 45 DAYS AFTER SUBMISSION OF AN UNDISPUTED REQUEST FOR PAYMENT


CRAIG M. PERRY — NEW MEXICO — 17328 — LICENSED PROFESSIONAL ENGINEER
6-26-07

| Issues/Revisions: | Date: |
|---|---|
| Bid Document | 6-24-07 |

Raton Aquatics Center
Raton, New Mexico

MCA Project No.: RAT 051-12

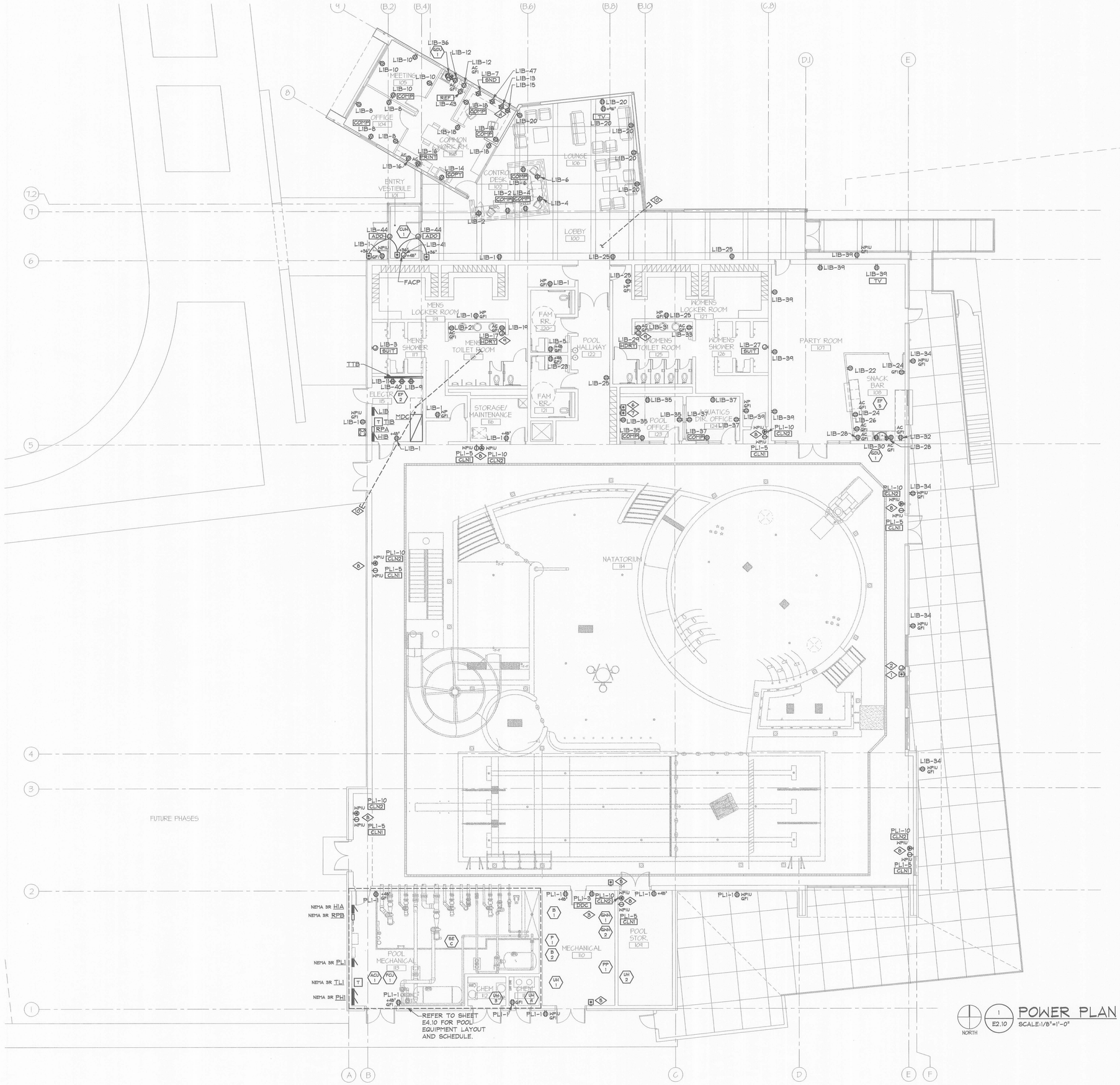
PANEL/EQUIPMENT SCHEDULES

PROJECT ARCHITECT: John Quinn Pate, RA

Drawn by: KLY
Checked by: LEY/CMP

E1.30

M:\26038-01 Aquatic Center-Raton,N.M\Elec\E1.30-Panel and Equip Sched.dwg, 6/26/2007 11:21:59 AM, KLY, ARCH expand E1 (30.00 x 42.00 Inches), 1:1




## DETAIL NOTES

1. PROVIDE NEMA 4X RED MUSHROOM HEAD MAINTAINED-CONTACT, NORMALLY CLOSED EPO PUSHBUTTON WITH COVER, FLUSH-MOUNTED. EPO SWITCH IS TO SHUT DOWN THE SPA RECIRCULATION PUMP (PP-7) AND SPA HYDROTHERAPY PUMP (PP-6). LABEL AS "SPA EMERGENCY POWER OFF". MOUNT SWITCH AT STANDARD SWITCH HEIGHT.
2. PROVIDE A 15 MINUTE TIMER FOR THE SPA HYDROTHERAPY PUMP (PP-6). THE SWITCH SHALL BE INTERMATIC DPST #FD41BM. VERIFY WITH SPA PROVIDER PRIOR TO ROUGH-IN.
3. COORDINATE EXACT LOCATION OF DDC RECEPTACLE AND PHONE OUTLET WITH OWNER PRIOR TO ROUGH-IN. LOCATE WHERE THE OWNER WANTS THE DDC.
4. VERIFY NETWORK EQUIPMENT REQUIREMENTS WITH THE CITY OF RATON.
5. PROVIDE 120V CIRCUIT AS SHOWN AND JUNCTION BOX. THIS IS FOR REMOTE BOILER DISCONNECT SWITCHES. COORDINATE WITH MECHANICAL CONTROLS CONTRACTOR PRIOR TO ROUGH-IN.
6. PROVIDE NEMA 4X RED MUSHROOM HEAD MAINTAINED-CONTACT, NORMALLY CLOSED EPO PUSHBUTTON WITH COVER, FLUSH-MOUNTED. EPO SWITCH IS TO SHUT DOWN THE LEISURE POOL FEATURE PUMPS (PP-1, PP-2, PP-4, PP-5, PP-9). LABEL AS "POOL EMERGENCY POWER OFF". MOUNT SWITCH AT STANDARD SWITCH HEIGHT.
7. PROVIDE (5) REMOTE START-STOP SWITCHES WITH PILOT LIGHT FOR PUMPS PP-1, PP-2, PP-4, PP-5, PP-9.
8. MOUNT BOTH POOL CLEANING RECEPTACLES IN THE SAME JUNCTION BOX UNDER A SINGLE COVER PLATE.
9. MOUNTING HEIGHT TO BE PER MANUFACTURER'S RECOMMENDATIONS.
10. STUB (4) 3" PVC CONDUITS W/ PULLWIRES FOR FUTURE ADDITION. STUB THE CONDUIT APPROXIMATELY 1'-0" OUTSIDE THE FOUNDATION OF THE BUILDING. CAP AND STAKE CONDUITS. PROVIDE A STEEL CAP ON THE END OF EACH CONDUIT FOR FUTURE AID IN LOCATING. PROVIDE A TYPED LABEL ATTACHED TO THE PULLWIRE DESCRIBING THE LOCATION OF THE OTHER END AND THAT CONDUIT IS FOR "POWER". REFER TO THE DIVISION 16 SPECIFICATIONS FOR DEPTH REQUIREMENTS.

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NOTICE OF EXTENDED PAYMENT PROVISION: THIS CONTRACT ALLOWS THE OWNER TO MAKE PAYMENT WITHIN 45 DAYS AFTER SUBMISSION OF AN UNDISPUTED REQUEST FOR PAYMENT

CRAIG M. PERRY NEW MEXICO 17328 LICENSED PROFESSIONAL ENGINEER
6-26-07

| Issues/Revisions: | Date: |
|---|---|
| Bid Document | 6-24-07 |

# Raton Aquatics Center

Raton, New Mexico

MCA Project No.: RAT 051-12

## POWER PLAN

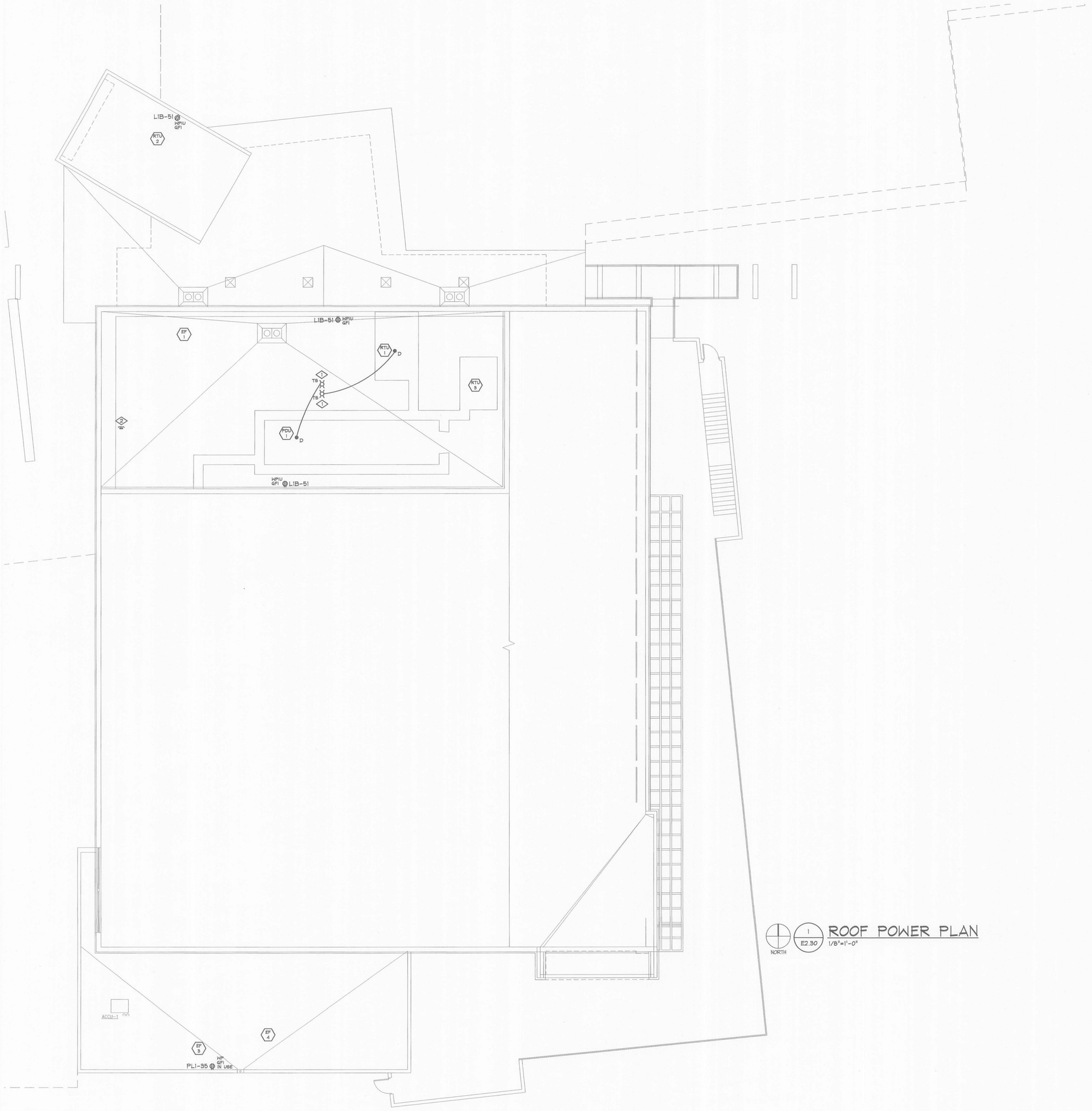
PROJECT ARCHITECT: John Quinn Pate, RA

Drawn by: KLY

Checked by: LEY/CMP

E2.10

R:\2005\05-02 Raton Aquatic Center-Sales\A-Arch\05-02-10-Power.dwg, 6/25/2007 4:20:31 PM, KLY, AIArch expand 51.2(MB), x 43.2(IB 3rd Party), 1:1




NORTH

1 / E2.30 ROOF POWER PLAN
1/8"=1'-0"

DETAIL NOTES

1. MOUNT REMOTE TEST SWITCHES IN AN ACCESSIBLE LOCATION BELOW THE ROOF.
2. LOCATION OF STUBBED CONDUITS FROM ELECTRICAL ROOM. REFER TO SHEET E3.10.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CRAIG M. PERRY
NEW MEXICO
17328
LICENSED PROFESSIONAL ENGINEER
6-26-07

| Issues/Revisions: | Date: |
|---|---|
| Bid Document | 6-24-07 |

Raton Aquatics Center
Raton, New Mexico

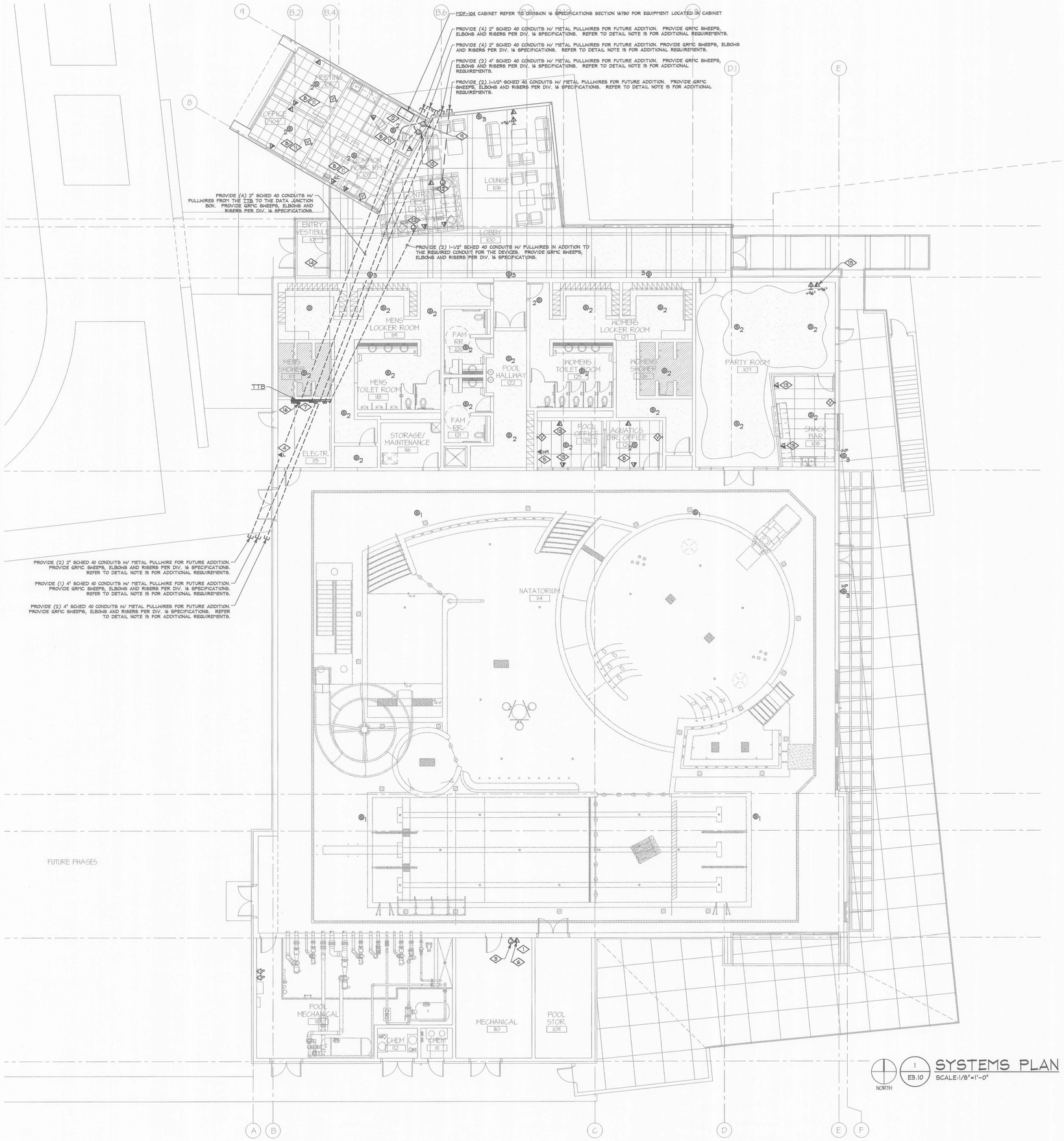
MCA Project No.: RAT 051-12

ROOF POWER PLAN

PROJECT ARCHITECT: John Quinn Pate, RA

Drawn by: KLY
Checked by: LEY/CMP

E2.30




## DETAIL NOTES

1. COORDINATE EXACT LOCATION OF DDC RECEPTACLE AND PHONE OUTLET WITH OWNER PRIOR TO ROUGH-IN. LOCATE WHERE THE OWNER WANTS THE DDC.
2. VERIFY SERVER EQUIPMENT REQUIREMENTS WITH BRIAN AINSWORTH OF PLAN B NETWORKS, INC.
3. PROVIDE A RECESSED FOUR-SQUARE, DEEP JUNCTION BOX NEXT TO THE TELECOMMUNICATION OUTLET FOR THE DDC CONTROLLER DATA CABLING.
4. PROVIDE IN-LINE SURGE SUPPRESSION PROTECTION ON THE LINE SIDE OF THE MODEM FROM TRIPP-LITE OR APPROVED EQUAL. PROVIDE SHOP DRAWINGS OF DEVICE.
5. PROVIDE DIRECT CONNECTION TO 911 SERVICE FOR EMERGENCIES. COORDINATE IF THIS SERVICE IS REQUIRED WITH THE CITY OF RATON RISK MANAGEMENT CONSULTANT.
6. TELECOMMUNICATIONS OUTLET FOR DDC CONTROLS.
7. PROVIDE BACKBOARDS TO COVER THE ENTIRE WALL UP TO 8'-6" AFF. LOCATE THE BACKBOARDS 6" AFF.
8. PROVIDE FACEPLATE, JACKS AND CABLING FOR (1) OF THE TELECOMMUNICATIONS OUTLETS IN THIS ROOM, UNLESS DIRECTED OTHERWISE BY THE CITY OF RATON. COORDINATE WHICH OUTLET TO ACTIVATE WITH THE CITY OF RATON. PROVIDE THE CONDUIT AND PULLWIRE FOR THE EMPTY OUTLET PER THE DETAILS ON SHEET E1.21. PROVIDE A BLANK FACEPLATE ON THE OTHER OUTLET. LABEL THE INSIDE OF THE BLANK COVERPLATE WITH THE LOCATIONS OF OTHER ENDS OF THE EMPTY CONDUIT. PROVIDE THE JUNCTION BOX AND CONDUIT AT BOTH OUTLET LOCATIONS.
9. PROVIDE A RECESSED JUNCTION BOX FOR THE SOUND SYSTEM WIRING AND CONNECTIONS. STUB ANY CONDUIT FOR THE SOUND SYSTEM INTO THIS JUNCTION BOX. STUB (4) 2" CONDUITS W/ PULLWIRES FROM THIS THE JUNCTION BOX UP ABOVE ACCESSIBLE CEILING. SIZE THE JUNCTION BOX AS REQUIRED.
10. PROVIDE A RECESSED JUNCTION BOX FOR THE LOW VOLTAGE DATA WIRING AND CONNECTIONS. STUB ANY CONDUIT FOR THE LOW VOLTAGE DATA SYSTEM INTO THIS JUNCTION BOX. STUB (4) 2" CONDUITS W/ PULLWIRES FROM THIS THE JUNCTION BOX UP ABOVE ACCESSIBLE CEILING. SIZE THE JUNCTION BOX AS REQUIRED. PROVIDE ADDITIONAL JUNCTION BOXES AS REQUIRED.
11. STUB LOW VOLTAGE DATA CONDUIT ONLY ABOVE ACCESSIBLE CEILING FOR THE TELECOMMUNICATIONS OUTLETS IN THIS ROOM. TELEPHONE CONDUIT SHALL BE ROUTED TO THE TTB. PROVIDE J-HOOKS ABOVE THE CEILING FOR ROUTING OF CABLING.
12. PROVIDE A RECESSED JUNCTION BOX WITH BLANK COVERPLATE FOR THE LOW VOLTAGE SPARE CONDUIT CONNECTIONS. SIZE THE JUNCTION BOX AS REQUIRED. LABEL THE INSIDE OF THE COVERPLATE WITH THE LOCATION OF THE OTHER END OF THE CONDUIT AND "LOW VOLTAGE".
13. THIS TELECOMMUNICATION OUTLET IS TO REMAIN EMPTY AT THIS TIME. PROVIDE THE CONDUIT AND PULLWIRE FOR THE EMPTY OUTLET PER THE DETAILS ON SHEET E1.21. PROVIDE A BLANK COVERPLATE AND LABEL THE INSIDE OF THE BLANK COVERPLATE WITH THE LOCATIONS OF OTHER ENDS OF THE EMPTY CONDUIT.
14. SEE SHEET FP2.10 FOR FIRE DETECTION PLAN.
15. STUB THE CONDUIT APPROXIMATELY 1'-0" OUTSIDE THE FOUNDATION OF THE BUILDING. REFER TO THE DIVISION 16 SPECIFICATIONS FOR DEPTH REQUIREMENTS. PROVIDE A STEEL CAP ON THE END OF EACH CONDUIT FOR FUTURE AID IN LOCATING. PROVIDE A TYPED LABEL ATTACHED TO THE PULLWIRE DESCRIBING THE LOCATION OF THE OTHER END OF THIS CONDUIT AND THAT IT IS FOR LOW-VOLTAGE OR SOUND SYSTEM USE.
16. PROVIDE (3) 2" CONDUITS FROM ELECTRICAL ROOM TO THE MECHANICAL ROOF WELL. PROVIDE PULL WIRE AND STUB BOTH ENDS OF THE CONDUIT.

## GENERAL NOTES

1. THE ELECTRICAL CONTRACTOR IS ULTIMATELY RESPONSIBLE FOR PROVIDING ALL CONDUIT AND BACKBOXES REQUIRED FOR ALL OF THE LOW VOLTAGE SYSTEMS INCLUDING THE PUBLIC ADDRESS SYSTEM WHETHER THE ELECTRICAL CONTRACTOR INSTALLS IT OR THEY INSTRUCT THE LOW VOLTAGE CONTRACTOR TO PROVIDE IT. THE ELECTRICAL CONTRACTOR SHALL DISCUSS THIS WITH THEIR SUBCONTRACTORS PRIOR TO PROVIDING A BID FOR THE PROJECT. REFER TO DETAILS ON SHEET E1.21 AND DIVISION 16 SPECIFICATIONS FOR CONDUIT AND BACKBOX REQUIREMENTS.
2. COORDINATE ALL DEVICE LOCATIONS WITH ADJACENT RECEPTACLES SHOWN ON POWER PLANS.
3. LABEL ALL LOW VOLTAGE EQUIPMENT INCLUDING PUBLIC ADDRESS SYSTEM PER SPECIFICATION 16780.
4. THERE SHALL BE NO EXPOSED CABLING IN AREAS OF EXPOSED STRUCTURAL CEILING. IN EXPOSED STRUCTURAL CEILING AREAS PROVIDE EMT CONDUIT TO THE NEAREST ACCESSIBLE CEILING OR WIRE BASKET.
5. REFER TO SHEET E1.21 FOR ALL CONDUIT, CABLING, FACEPLATE AND JACK REQUIREMENTS.
6. PROVIDE A LAMINATED HALF SIZE COPY OF THIS PLAN WITH ALL AS-BUILT REDLINES TO AID IN LOCATION OF SPARE CONDUIT. SECURELY FASTEN THE PLAN TO THE TTB.

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NOTICE OF EXTENDED PAYMENT PROVISION: THIS CONTRACT ALLOWS THE OWNER TO MAKE PAYMENT WITHIN 45 DAYS AFTER SUBMISSION OF AN UNDISPUTED REQUEST FOR PAYMENT

CRAIG M. PERRY NEW MEXICO 17328 LICENSED PROFESSIONAL ENGINEER
6-26-07

| Issues/Revisions: | Date: |
|---|---|
| Bid Document | 6-24-07 |

# Raton Aquatics Center

Raton, New Mexico

MCA Project No.: RAT 051-12

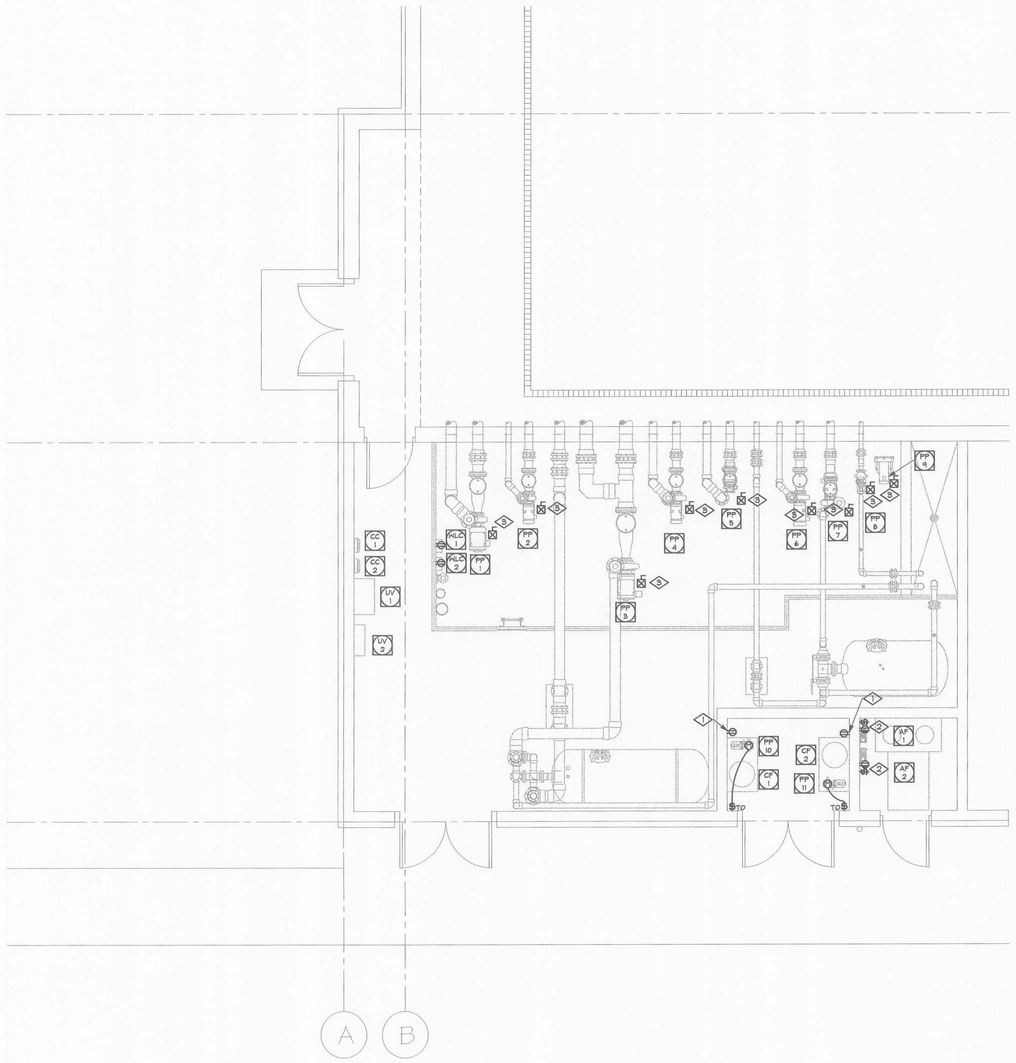
## SYSTEMS PLAN

PROJECT ARCHITECT: John Quinn Pate, RA

Drawn by: CJM/KLY
Checked by: LEY/CMP

E3.10

2005-01 Aquatic Center-Raton,NM\Rat051-10-Systems.dwg, 6/25/2007 4:23:54 PM, KLY, ARCH expand E1 (36.00 x 42.00 Inches), 1:1




NORTH

1 / E4.10

## POOL EQUIPMENT POWER PLAN

SCALE: 1/4" = 1'-0"

### DETAIL NOTES

1. PROVIDE RECEPTACLE FOR POOL CHLORINE SOLENOID. CONNECT RECEPTACLE TO THE POOL/SPA CHEMICAL CONTROLLERS.
2. MOUNT RECEPTACLE AND ITS SWITCH IN THE SAME JUNCTION BOX AND UNDER THE SAME COVER PLATE. CONNECT TO THE POOL/SPA CHEMICAL CONTROLLERS. REFER TO DETAIL 15 ON SHEET SP4.2.
3. PROVIDE COMBINATION STARTER/DISCONNECTS FOR PUMPS PP-1 THRU PP-9 MOUNTED TO A UNISTRUT FRAME NEXT TO PUMP. SIZE AS SHOWN ON THE POOL EQUIPMENT SCHEDULE.

### POOL EQUIPMENT SCHEDULE

25-Jun-07

| KEY | EQUIPMENT | LOAD (VA) | VOLTS | PH | BRANCH CIRCUIT CONDUCTORS | COND. | DISCONNECT SWITCH | DISCONNECT FUSE | CIRCUIT BREAKER | STARTER | CIRCUIT | NOTES |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| AF 1 | ACID FEEDER | 120 | 120 | 1 | 2#12, 1#12G | 1/2" | NEMA 5-20R | | 20A/1P | -- | FED FROM CC-1 | 2 |
| AF 2 | ACID FEEDER | 120 | 120 | 1 | 2#12, 1#12G | 1/2" | NEMA 5-20R | | 20A/1P | -- | FED FROM CC-2 | 2 |
| CC 1 | CHEMICAL CONTROLLER | 720 | 120 | 1 | 2#12, 1#12G | 1/2" | -- | | 20A/1P | -- | PLI-6 PLI-8 | 3 |
| CC 2 | CHEMICAL CONTROLLER | 720 | 120 | 1 | 2#12, 1#12G | 1/2" | -- | | 20A/1P | -- | PLI-24 PLI-26 | 3 |
| CF 1 | CHLORINE FEEDER 5 FLA SOLENOID | 600 | 120 | 1 | 2#12, 1#12G | 1/2" | NEMA 5-20R | | 20A/1P | -- | FED FROM CC-1 | 1 |
| CF 2 | CHLORINE FEEDER 5 FLA SOLENOID | 600 | 120 | 1 | 2#12, 1#12G | 1/2" | NEMA 5-20R | | 20A/1P | -- | FED FROM CC-2 | 1 |
| PP 1 | LEISURE POOL WATER SLIDE, 15 HP | 17459 | 480 | 3 | 3#10, 1#10G | 3/4" | 30A/3P | | 50A/3P | NEMA-2 START-STOP | PHI-1, 3, 5 | 4, 5 |
| PP 2 | LEISURE POOL HYDROTHERAPY PUMP, 5 HP | 6319 | 480 | 3 | 3#12, 1#12G | 1/2" | 30A/3P | | 15A/3P | NEMA-0 START-STOP | PHI-7, 9, 11 | 4, 5 |
| PP 3 | LEISURE POOL RECIRCULATION PUMP, 25 HP | 28267 | 480 | 3 | 3#6, 1#8G | 3/4" | 60A/3P | | 80A/3P | NEMA-2 START-STOP | PHI-13, 15, 17 | 5 |
| PP 4 | LEISURE POOL VORTEX PUMP 5 HP | 6319 | 480 | 3 | 3#12, 1#12G | 1/2" | 30A/3P | | 15A/3P | NEMA-0 START-STOP | PHI-19, 21, 23 | 4, 5 |
| PP 5 | LEISURE POOL FEATURES PUMP 5 HP | 6319 | 480 | 3 | 3#12, 1#12G | 1/2" | 30A/3P | | 15A/3P | NEMA-0 START-STOP | PHI-2, 4, 6 | 4, 5 |
| PP 6 | SPA HYDROTHERAPY PUMP 7.5 HP | 9145 | 480 | 3 | 3#12, 1#12G | 1/2" | 30A/3P | | 25A/3P | NEMA-1 START-STOP | PHI-8, 10, 12 | 5 |
| PP 7 | SPA RECIRCULATION PUMP 7.5 HP | 9145 | 480 | 3 | 3#12, 1#12G | 1/2" | 30A/3P | | 25A/3P | NEMA-1 START-STOP | PHI-14, 16, 18 | 5 |
| PP 8 | DRAIN PUMP 1.5 HP | 2494 | 480 | 3 | 3#12, 1#12G | 1/2" | 30A/3P | | 15A/3P | NEMA-0 START-STOP | PHI-35, 37, 39 | 5 |
| PP 9 | AIR COMPRESSOR 5.0 HP | 6319 | 480 | 3 | 3#12, 1#12G | 1/2" | 30A/3P | | 20A/3P | NEMA-0 START-STOP | PHI-36, 40, 42 | 4, 5 |
| PP 10 | CHLORINE BOOSTER PUMP 3/4 HP | 1656 | 120 | 1 | 2#12, 1#12G | 1/2" | THERMAL OL SWITCH | | 30A/1P | -- | PLI-16 | 1 |
| PP 11 | CHLORINE BOOSTER PUMP 3/4 HP | 1656 | 120 | 1 | 2#12, 1#12G | 1/2" | THERMAL OL SWITCH | | 30A/1P | -- | PLI-18 | 1 |
| UV 1 | LEISURE POOL UV SYSTEM 5.4 KW | 5400 | 208 | 3 | 3#6, 1#10G | 3/4" | 60A/3P | | 50A/3P | -- | PLI-7, 9, 11 | |
| UV 2 | SPA UV SYSTEM 2.5 KW | 2500 | 208 | 3 | 3#10, 1#10G | 3/4" | 30A/3P | | 25A/3P | -- | PLI-13, 15, 17 | |
| WLC 1 | WATER LEVEL CONTROLLER .75A | 90 | 120 | 1 | 2#12, 1#12G | 1/2" | NEMA 5-20R | | 20A/1P | -- | PLI-4 PART | |
| WLC 2 | WATER LEVEL CONTROLLER .75A | 90 | 120 | 1 | 2#12, 1#12G | 1/2" | NEMA 5-20R | | 20A/1P | -- | PLI-4 PART | |

GENERAL NOTES (FOR ALL SCHEDULED EQUIPMENT):

A. FIELD-VERIFY ALL EQUIPMENT LOADS, VOLTAGES, AND RECOMMENDED OCP SIZING PRIOR TO ENERGIZING CIRCUIT.
B. REFER TO POOL EQUIPMENT DRAWINGS (SP SERIES) FOR EXACT EQUIPMENT SIZES, LOCATIONS, AND OTHER REQUIREMENTS.
C. PROVIDE DISCONNECT SWITCHES, FEEDERS, BRANCH CIRCUITS, AND POWER CONNECTIONS TO ALL POOL EQUIPMENT.
D. PROVIDE STARTERS FOR ALL POOL EQUIPMENT MOTORS. REFER TO POOL EQUIPMENT DRAWINGS FOR MOTOR SPECIFICATIONS.
E. PROVIDE CONTROL WIRING, INTERLOCKS, CONTACTORS, TIMERS, EMERGENCY POWER OFF SWITCHES, AND ANY OTHER CONTROL DEVICES AS REQUIRED PER THE POOL EQUIPMENT DRAWINGS TO PROVIDE A COMPLETE AND OPERATIONAL SYSTEM.
F. PROVIDE NEMA 4X NON-METALLIC ENCLOSURES WITH STAINLESS STEEL HARDWARE FOR ALL DISCONNECT SWITCHES AND MOTOR STARTERS.
G. PROVIDE LIQUIDTIGHT FLEXIBLE METAL CONDUIT (LFMC) CONNECTION, MINIMUM 18" LENGTH, TO ALL PUMP MOTORS.

NOTES SPECIFIC TO SCHEDULED EQUIPMENT (REFER TO NOTES COLUMN WITHIN SCHEDULE):

1. CHEMICAL FEED SYSTEMS SHALL BE INTERLOCKED WITH THE POOL RECIRCULATION PUMP TO SUSPEND CHEMICAL FEEDING IN THE EVENT THE MAIN RECIRCULATION PUMP IS SHUT DOWN.
2. ACID FEED SYSTEM SHALL BE INTERLOCKED WITH THE POOL RECIRCULATION PUMP TO SUSPEND CHEMICAL FEEDING IN THE EVENT THE MAIN RECIRCULATION PUMP IS SHUT DOWN. REFER TO DETAIL 13 ON SHEET SP4.2.
3. PROVIDE TWO DEDICATED 120V CIRCUITS. REFER TO DETAIL 13 ON SHEET SP4.2 FOR INFORMATION ON INTERLOCKING CONTROLLER WITH POOL CIRCULATION PUMP.
4. PROVIDE START-STOP ON STARTER AND A REMOTE START STOP IN THE POOL OFFICE. REFER TO SHEET E2.10 FOR LOCATION.
5. PROVIDE COMBINATION STARTER/DISCONNECT.

### POOL BONDING REQUIREMENTS

1. THE POOL CONCRETE REINFORCING STEEL REBAR SHALL BE BONDED WITH STEEL TIE WIRES, OR EQUAL, AND SHALL THEREBY SERVE AS A COMMON BONDING GRID FOR ALL PARTS REQUIRED BY N.E.C. 2005 680.26 TO BE BONDED TOGETHER. BONDING LUGS TO BE SUPPLIED BY POOL CONTRACTOR.
2. THE FOLLOWING PARTS SHALL BE BONDED TOGETHER AND CONNECTED TO THE COMMON BONDING GRID:
   A. ALL METALLIC PARTS OF THE POOL STRUCTURE, INCLUDING COPING STONES, DECK, PERMANENT PLAY STRUCTURES, PERMANENT EXERCISE STRUCTURES.
   B. ALL METAL FITTINGS WITHIN OR ATTACHED TO THE POOL STRUCTURE.
   C. METAL PARTS ASSOCIATED WITH THE POOL WATER CIRCULATING SYSTEM, INCLUDING PUMPS, FILTERS, AND HEATERS.
   D. METAL PARTS ASSOCIATED WITH POOL COVERS.
   E. METAL SHEATHED CABLES AND RACEWAYS, METAL PIPING, AND ALL FIXED METAL PARTS WITHIN 5 FEET HORIZONTALLY OF INSIDE WALLS OF POOL AND WITHIN 12 FEET ABOVE THE MAXIMUM WATER LEVEL OF THE POOL.
   F. METAL PARTS ASSOCIATED WITH OBSERVATION STANDS, TOWERS, PLATFORMS, AND DIVING STRUCTURES.
3. ISOLATED PARTS THAT ARE NOT MORE THAN 4" IN ANY DIMENSION AND DO NOT GENETRATE INTO THE POOL STRUCTURE MORE THAN 1" SHALL NOT REQUIRE BONDING.
4. BONDING CONDUCTORS SHALL BE MINIMUM #8 SOLID COPPER. E.C. SHALL COORDINATE APPROVED CONNECTOR TYPE AND METHOD WITH LOCAL ELECTRICAL AND/OR POOL INSPECTOR.
5. SPECIFIC MANUFACTURER'S INSTRUCTIONS REGARDING BONDING OR GROUNDING OF POOL EQUIPMENT, WHETHER INDICATED HEREIN OR NOT, SHALL BE STRICTLY FOLLOWED.
6. THE COMMON BONDING GRID SHALL NOT BE CONNECTED TO ANY ELECTRICAL DISTRIBUTION EQUIPMENT.
7. ANY PARTS IN ADDITION TO THOSE DESCRIBED HEREIN THAT ARE INDICATED BY POOL CONTRACTOR OR LOCAL INSPECTION AUTHORITY SHALL BE BONDED TO THE COMMON BONDING GRID WITH NO ADDITIONAL COSTS INCURRED BY THE OWNER.
8. ROPE ANCHORS WHICH ARE ATTACHED TO A STAINLESS STEEL GUTTER ARE INTERNALLY BONDED TO GUTTER AND SO DO NOT REQUIRE ADDITIONAL BONDING.
9. THE ELECTRICAL CONTRACTOR SHALL COORDINATE BONDING WITH POOL CONTRACTOR AND GENERAL CONTRACTOR.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NOTICE OF EXTENDED PAYMENT PROVISION: THIS CONTRACT ALLOWS THE OWNER TO MAKE PAYMENT WITHIN 45 DAYS AFTER SUBMISSION OF AN UNDISPUTED REQUEST FOR PAYMENT

CRAIG M. PERRY NEW MEXICO 17998 LICENSED PROFESSIONAL ENGINEER
10-26-07

| Issues/Revisions: | Date: |
|---|---|
| Bid Document | 6-24-07 |

Raton Aquatics Center
Raton, New Mexico

MCA Project No.: RAT 051-12

POOL EQUIPMENT PLAN

PROJECT ARCHITECT: John Quinn Pate, RA

Drawn by: KLY
Checked by: LEY/CMP

E4.10


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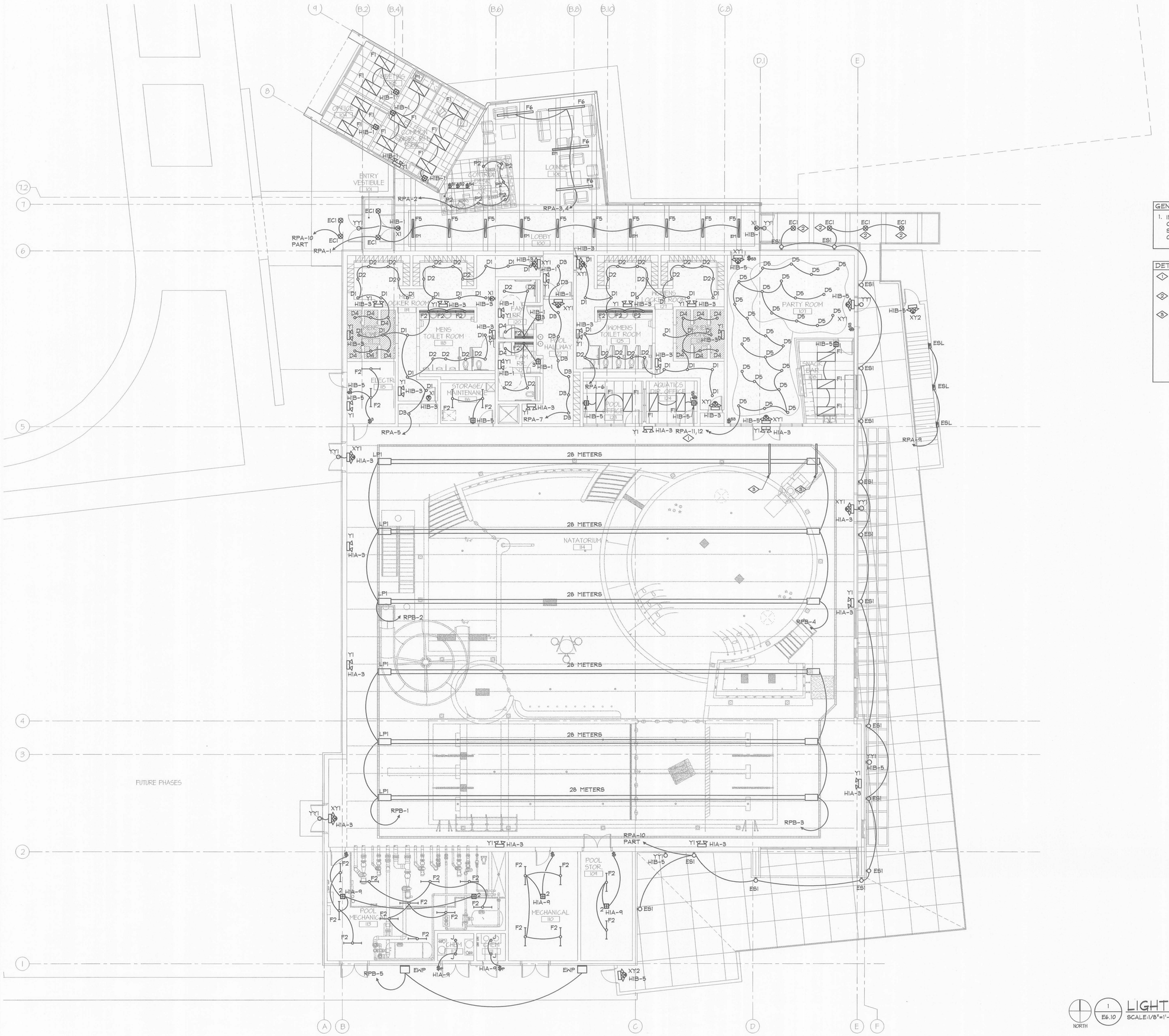


## GENERAL NOTES

1. IN ROOMS WITH A TOGGLE SWITCH AND A CEILING MOUNTED MOTION SENSOR CIRCUIT SO THAT THE TOGGLE SWITCH ONLY OPERATES WHEN MOTION IS SENSED.

## DETAIL NOTES

<1> CIRCUIT BOTH RELAYS TO EACH FIXTURE FOR DUAL LEVEL CONTROL.

<2> MOUNT TO UNDERSIDE OF DECK. CONDUIT IS EXPOSED UNDER DECK.

<3> MOUNT UNISTRUT BETWEEN TWO STRUCTURAL JOISTS. BOLT TO BOTTOM OF JOIST. LOCATE UNISTRUT OVER EACH LIGHT PIPE MOUNTING POINT SHOWN ON THE MANUFACTURER SHOP DRAWINGS. ATTACH LIGHT PIPE AIRCRAFT CABLE TO UNISTRUT. TYPICAL OF ALL LIGHT PIPES AND ALL LIGHT PIPE MOUNTING POINTS. UNISTRUT TO BE PAINTED TO MATCH CEILING.

NORTH

1 / E6.10 LIGHTING PLAN
SCALE: 1/8"=1'-0"


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CRAIG M. PERRY NEW MEXICO 17328 LICENSED PROFESSIONAL ENGINEER
6-26-07

| Issues/Revisions: | Date: |
|---|---|
| Bid Document | 6-24-07 |

# Raton Aquatics Center

Raton, New Mexico

MCA Project No.: RAT 051-12

## LIGHTING PLAN

PROJECT ARCHITECT: John Quinn Pate, RA

Drawn by: KLY

Checked by: LEY/CMP

E6.10


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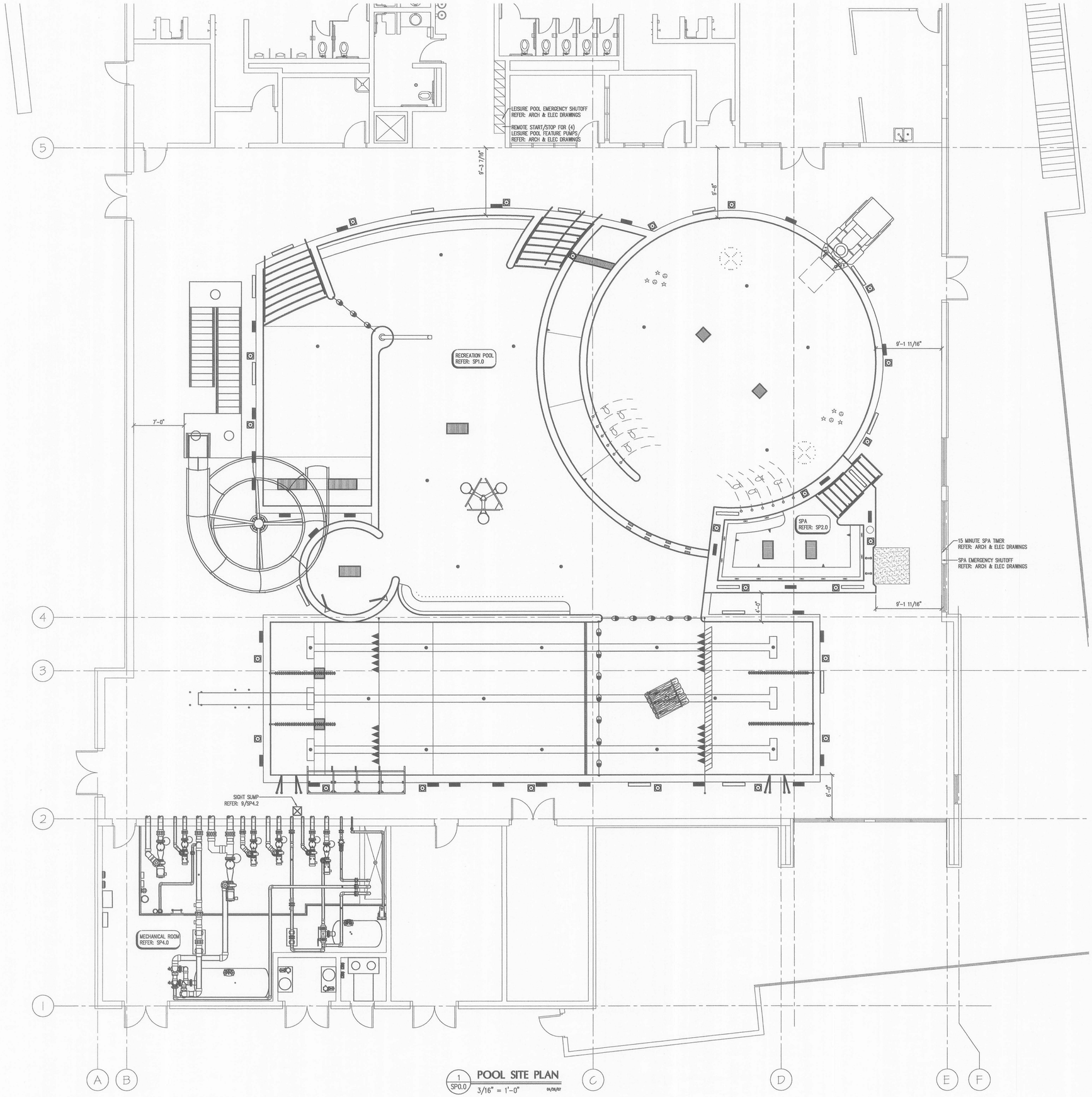


1 SP0.0 **POOL SITE PLAN**
3/16" = 1'-0" 04/26/07

## DESIGN DATA

| | RECREATION POOL | SPA |
|---|---|---|
| LENGTH | VARIES | VARIES |
| WIDTH | VARIES | VARIES |
| POOL WATER SURFACE AREA (SQ. FT.) | 5,546 SQ.FT. | 207 SQ.FT. |
| PERIMETER | 691'-0" | 61'-0" |
| VOLUME | 176,600 GAL | 3,165 GAL |
| BATHER LOAD | 341 PERSONS | 20 PERSONS |
| CIRCULATION SYSTEM & FILTERS | | |
| FILTER TYPE | HIGH RATE SAND | HIGH RATE SAND |
| POOL TURNOVER | 2.9 HOURS | 12 MIN |
| RECIRCULATION RATE | 1,000 GPM | 265 GPM |
| FILTRATION RATE (DESIGN MAX.) | 15.0 GPM/SQ.FT. | 15.0 GPM/SQ.FT. |
| FILTER AREA (REQUIRED) | 66.7 SQ.FT. | 17.7 SQ.FT. |
| FILTER AREA (ACTUAL) | 69.2 SQ.FT. | 20.4 SQ.FT. |
| FILTRATION RATE (ACTUAL) | 14.45 GPM/SQ.FT. | 13.0 GPM/SQ.FT. |
| BACKWASH RATE (ACTUAL) | 15.0 GPM/SQ.FT. | 15.0 GPM/SQ.FT. |
| BACKWASH FLOW RATE (ACTUAL) | 519 GPM | 306 GPM |
| SEWER CAPACITY | 150 GPM | 150 GPM |
| INITIAL FILL RATE | 123 GPM | 53 GPM |
| INITIAL FILL TIME | 24 HOURS | 1 HOUR |

## GENERAL POOL NOTES

1. ⊕ DENOTES WATER DEPTH FROM WATER LEVEL.

2. POOL FINISH TO BE DIAMOND BRITE/PEBBLE TEC WITH A 6" CERAMIC TILE BAND AND A 1'-4" PERIMETER TILE BAND WITH TILE DECK MARKINGS. SPA FINISH TO BE ALL CERAMIC TILE.

3. TYPICAL POOL DIMENSIONS SHOWN ARE FROM INSIDE FINISHED POOL WALL.

4. THE JUNCTION BETWEEN THE SWIMMING POOL WALL AND THE FLOOR SHALL BE COVED WITH A MINIMUM 6" RADIUS, OR AS NOTED.

5. DEPTH MARKERS AND WARNING SIGNS ARE SHOWN IN APPROXIMATE LOCATIONS. DEPTH MARKERS AND WARNING SIGNS MAY NOT EXCEED 25'-0" APART FROM EACH OTHER, OR SHALL BE PLACED AT EVEN FOOT INTERVALS PER LOCAL CODE.

6. ALL PROPRIETARY NAMES MENTIONED ARE TO DESIGNATE PERFORMANCE STANDARDS. EQUIVALENT PRODUCTS MUST BE SUBMITTED FOR APPROVAL.

7. SLIP RESISTANT DECK – REFER TO ARCHITECT

8. DECK DRAINS & HOSE BIBS – REFER TO PLUMBING

9. ALL SURFACE WATER SHALL DRAIN AWAY FROM THE POOL.

10. GFI OUTLETS – REFER TO ELECTRICAL

11. NO GROUND WATER SHALL BE ALLOWED TO RISE ABOVE ANY PORTION OF THE POOL BOTTOM DURING CONSTRUCTION.

## ALTERNATES

ALTERNATE #1 – PROVIDE THE TRAIN SLIDE

ALTERNATE #2 – PROVIDE THE CLIMBING WALL

ALTERNATE #4 – PROVIDE THE SPA PIPING AND ELECTRICAL. THE SPA IS BASE BID.

## SHEET INDEX


| SHEET | DESCRIPTION |
|---|---|
| SP0.0 | POOL SITE PLAN |
| SP1.0 | RECREATION POOL PLAN |
| SP1.1 | RECREATION POOL SECTIONS |
| SP1.2 | RECREATION POOL DETAILS |
| SP1.3 | RECREATION POOL DETAILS |
| SP1.4 | RECREATION POOL LOCATION POINT SCHEDULE |
| SP2.0 | SPA PLAN, SECTIONS, AND DETAILS |
| SP2.1 | SPA LOCATION POINT SCHEDULE |
| SP3.0 | POOL PIPING PLAN – SUCTION |
| SP3.1 | POOL PIPING PLAN – RETURN |
| SP4.0 | POOL MECHANICAL ROOM PLAN AND SECTIONS |
| SP4.1 | POOL MECHANICAL DETAILS |
| SP4.2 | POOL MECHANICAL DETAILS |
| SP5.0 | POOL SYSTEMS SCHEMATICS |
| SP6.0 | POOL STRUCTURAL PLAN |
| SP6.1 | STRUCTURAL GENERAL NOTES AND DETAILS |
| SP6.2 | STRUCTURAL SECTIONS AND DETAILS |



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NOTICE OF EXTENDED PAYMENT PROVISIONS: THIS CONTRACT ALLOWS THE OWNER TO MAKE PAYMENT WITHIN 45 DAYS AFTER SUBMISSION OF AN UNDISPUTED REQUEST FOR PAYMENT

JOHN DOUGLAS COOK NEW MEXICO 16885 LICENSED PROFESSIONAL ENGINEER
6/24/07

| Issues/Revisions: | Date: |
|---|---|
| Bid Document | 6-24-07 |

**Raton Aquatics Center**
Raton, New Mexico

MCA Project No.: RAT 051-12

**POOL SITE PLAN**

PROJECT ARCHITECT: John Quinn Pate, RA

Drawn by: EDW
Checked by: JDC

**SP0.0**

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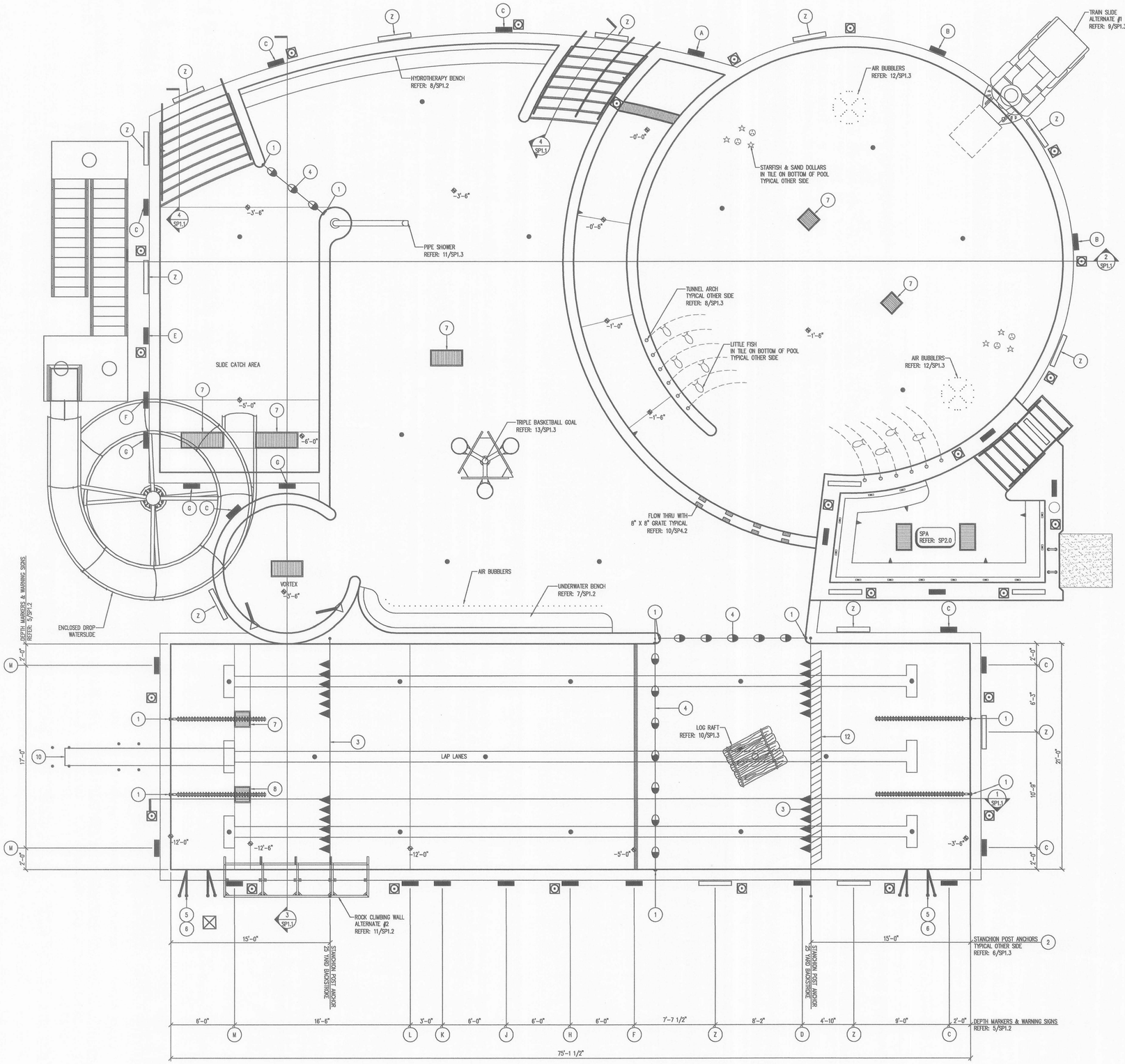


1 SP0.0 RECREATION POOL PLAN
1/4" = 1'-0"

## POOL EQUIPMENT SCHEDULE

| LEGEND | ID | ITEM |
|---|---|---|
| | 1 | CUP ANCHOR REFER: 1/SP1.2 |
| | 2 | STANCHION POST AND ANCHOR REFER: 6/SP1.3 |
| | 3 | BACKSTROKE PENNANT |
| | 4 | SAFETY ROPE |
| | 5 | GRAB RAIL AND RECESSED STEPS REFER: 4/SP1.2 |
| | 6 | COMPRESSION ANCHOR REFER: 3/SP1.3 |
| | 7 | MAIN DRAIN FRAME & GRATE REFER: 5/SP4.1 |
| | 8 | DEEP MAIN DRAIN FRAME & GRATE REFER: 4/SP4.1 |
| | 9 | PORTABLE POOL LIFT REFER: 4/SP1.3 |
| | 10 | 1 METER DIVING BOARD AND STAND REFER: 12/SP1.2 |
| N/A | 11 | PORTABLE LIFEGUARD CHAIR |
| | 12 | VOLLEYBALL NET |

## DEPTH MARKER SCHEDULE

| ID | SIGNAGE |
|---|---|
| A | 0 FT – 0 IN |
| B | 1 FT – 6 IN |
| C | 3 FT – 6 IN |
| D | 4 FT – 3 IN |
| E | 4 FT – 6 IN |
| F | 5 FT – 0 IN |
| G | 6 FT – 0 IN |
| H | 7 FT – 0 IN |
| J | 9 FT – 0 IN |
| K | 11 FT – 0 IN |
| L | 12 FT – 0 IN |
| M | 12 FT – 6 IN |
| Z | NO DIVING |


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NOTICE OF EXTENDED PAYMENT PROVISION: THIS CONTRACT ALLOWS THE OWNER TO MAKE PAYMENT WITHIN 45 DAYS AFTER SUBMISSION OF AN UNDISPUTED REQUEST FOR PAYMENT

JOHN DOUGLAS COOK
NEW MEXICO
16885
LICENSED PROFESSIONAL ENGINEER
6/24/07

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Raton, New Mexico

MCA Project No.: RAT 051-12

RECREATION POOL PLAN

PROJECT ARCHITECT: John Quinn Pate, RA

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Checked by: JDC

SP1.0

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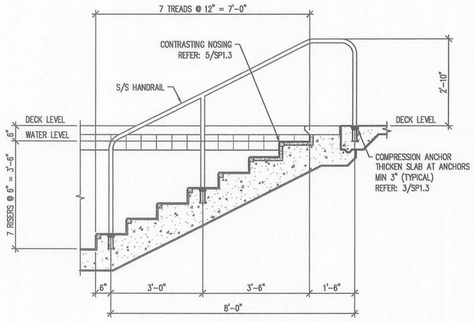
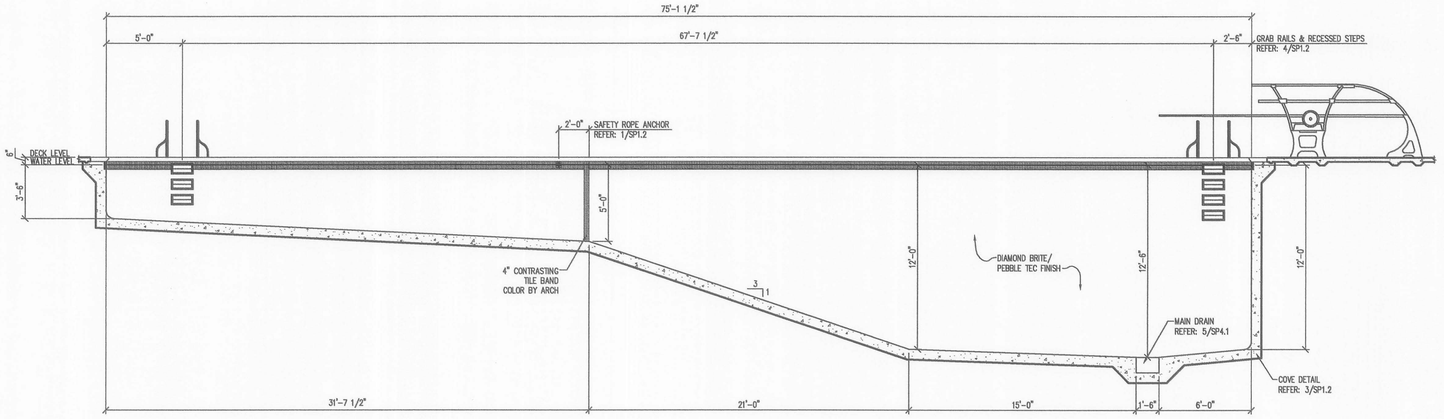
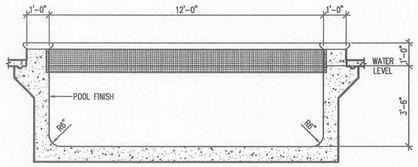


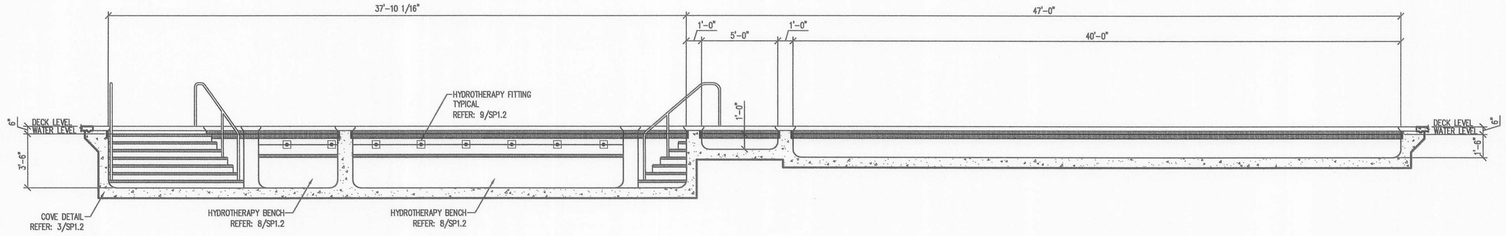

4 / SP1.1 **STAIR SECTION**
1/2" = 1'-0" 04/26/07




1 / SP1.1 **RECREATION POOL SECTION**
1/4" = 1'-0" 04/26/07




5 / SP1.1 **VORTEX SECTION**
1/2" = 1'-0" 04/26/07




2 / SP1.1 **RECREATION POOL SECTION**
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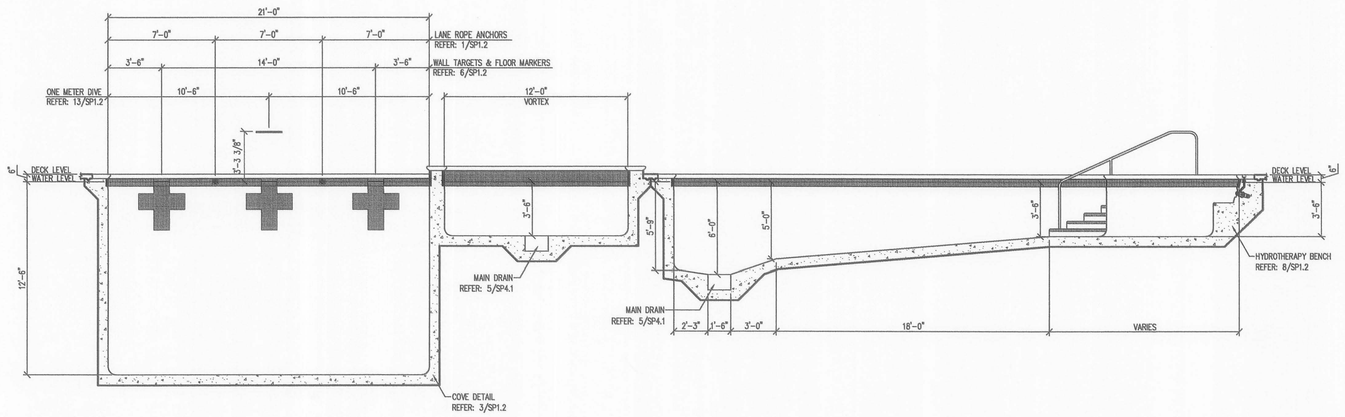


3 / SP1.1 **RECREATION POOL SECTION**
1/4" = 1'-0" 04/26/07


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Raton Aquatics Center
Raton, New Mexico

MCA Project No.: RAT 051-12

RECREATION POOL SECTIONS

PROJECT ARCHITECT: John Quinn Pate, RA

Drawn by: EDW
Checked by: JDC

SP1.1


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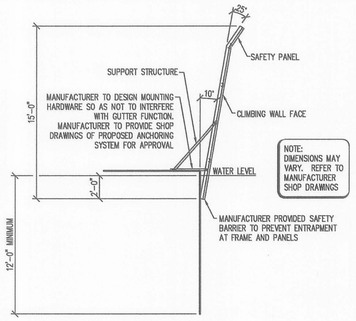
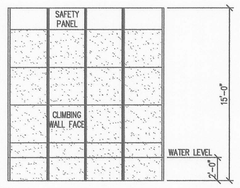
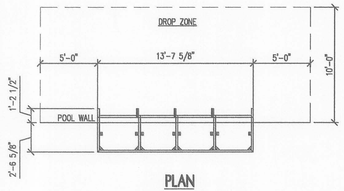



SECTION

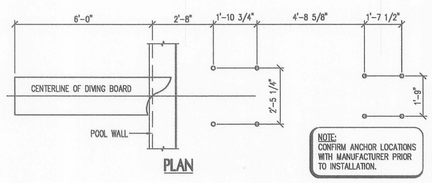



ELEVATION

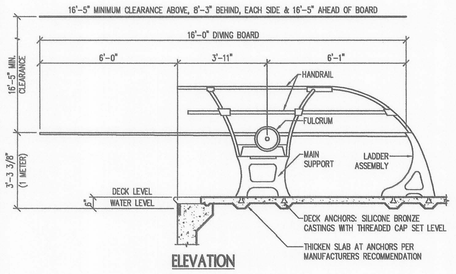



PLAN

11 SP1.2 **ROCK CLIMBING WALL (ALTERNATE #2)**
3/16" = 1'-0" 04/28/07

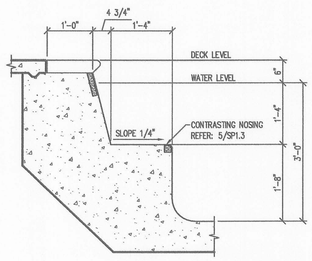



PLAN

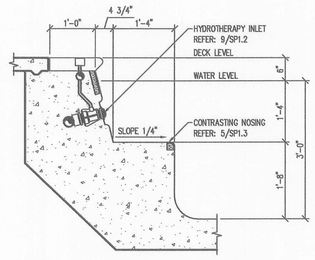



ELEVATION

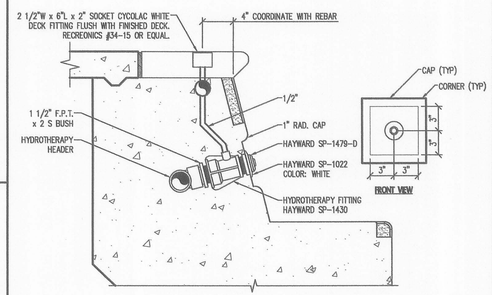
12 SP1.2 **ONE METER DIVING BOARD**
3/8" = 1'-0" 04/28/07



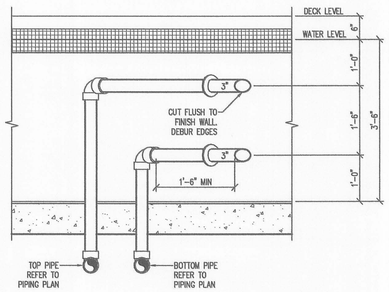

7 SP1.2 **UNDERWATER BENCH**
3/4" = 1'-0" 04/28/07



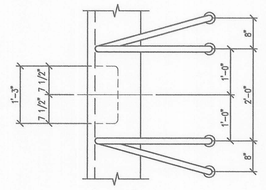

8 SP1.2 **HYDROTHERAPY BENCH**
3/4" = 1'-0" 04/28/07



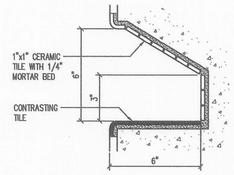

9 SP1.2 **HYDROTHERAPY FITTING**
1 1/2" = 1'-0" 04/28/07



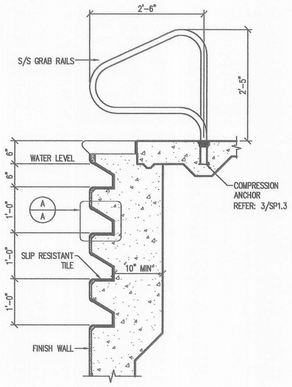

10 SP1.2 **VORTEX NOZZLES**
3/4" = 1'-0" 04/28/07



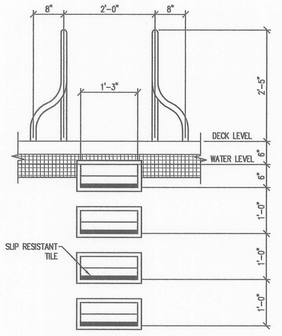

PLAN




DETAIL A-A
3" = 1'-0"

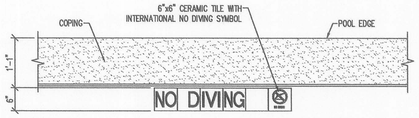



SECTION



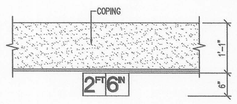

ELEVATION

4 SP1.2 **GRAB RAILS & RECESSED STEPS**
3/4" = 1'-0" 04/28/07




WARNING SIGN PLAN

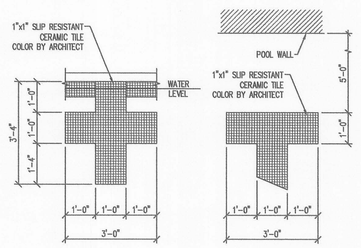
NOTE: DEPTH MARKERS & WARNING SIGNS ON DECK TO BE 6"x6" CERAMIC TILE




DEPTH MARKER PLAN

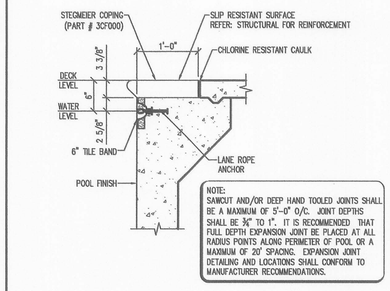
WARNING SIGN ELEVATION DEPTH MARKER ELEVATION

5 SP1.2 **DEPTH MARKERS & WARNING SIGNS**
3/4" = 1'-0" 04/28/07

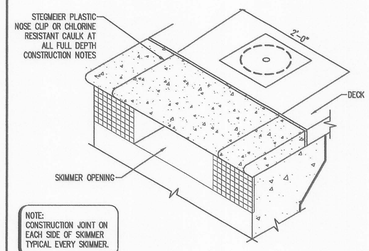



TARGET ELEVATION FLOOR MARKER PLAN

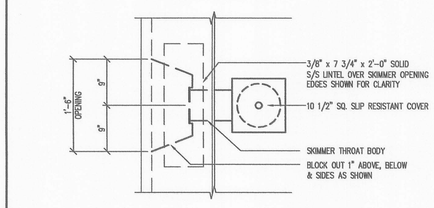
6 SP1.2 **WALL TARGETS & FLOOR MARKERS**
1/2" = 1'-0" 04/28/07



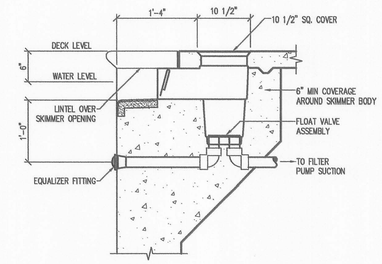

1 SP1.2 **POOL WALL SECTION**
1" = 1'-0" 04/28/07




ISOMETRIC

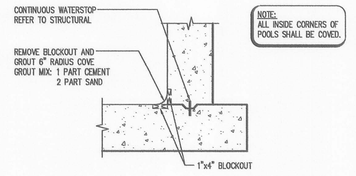



PLAN




SECTION

2 SP1.2 **SKIMMER DETAIL**
1" = 1'-0" 04/28/07




3 SP1.2 **COVE DETAIL**
3/4" = 1'-0" 04/28/07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Raton Aquatics Center
Raton, New Mexico

MCA Project No.: RAT 051-12

RECREATION POOL DETAILS

PROJECT ARCHITECT: John Quinn Pate, RA

Drawn by: EDW
Checked by: JDC

SP1.2


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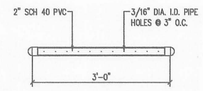
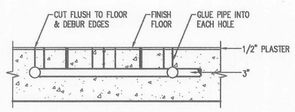
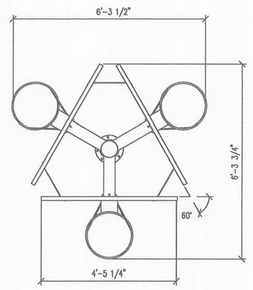



PLAN




SECTION

12 SP1.3 **BUBBLER DETAIL**
3/4" = 1'-0" 04/26/07

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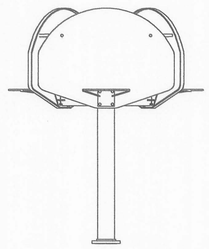
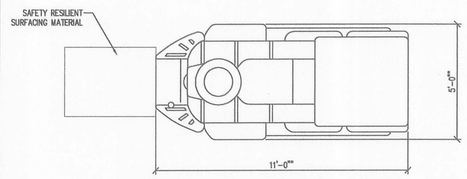
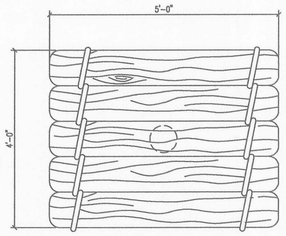


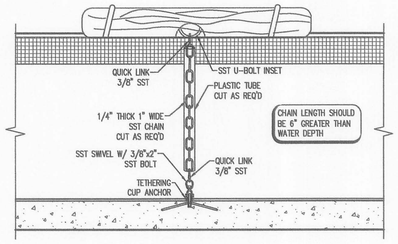
ELEVATION

13 SP1.3 **TRIPLE BASKETBALL GOAL**
1/2" = 1'-0" 04/26/07




9 SP1.3 **TRAIN SLIDE (ALTERNATE #1)**
3/8" = 1'-0" 04/26/07




10 SP1.3 **LOG RAFT FLOATABLE**
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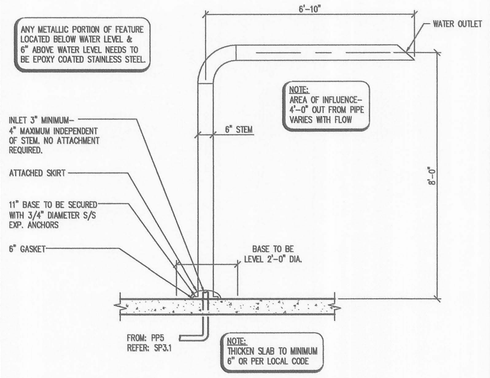
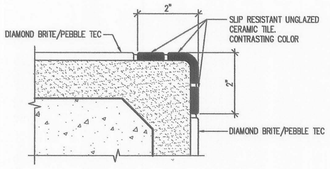
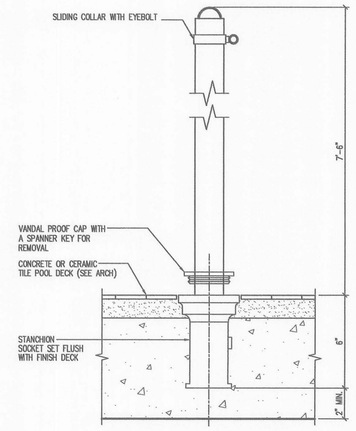


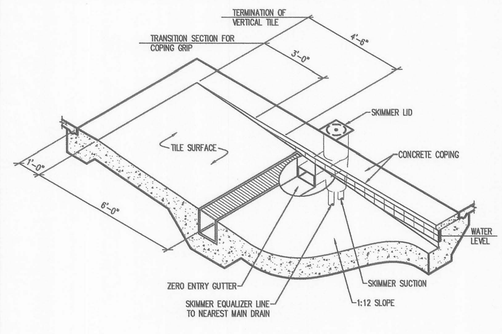

11 SP1.3 **PIPE SHOWER**
1/2" = 1'-0" 04/26/07



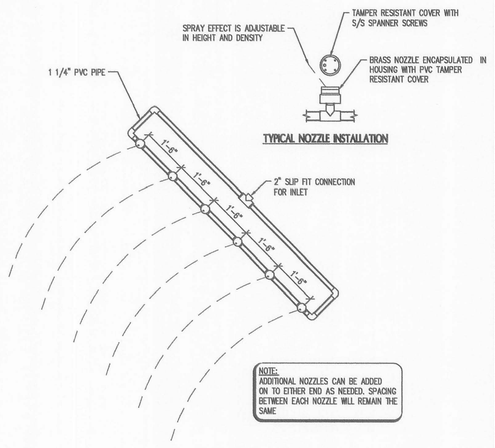

5 SP1.3 **CONTRASTING NOSING TILE**
6" = 1'-0" 04/26/07



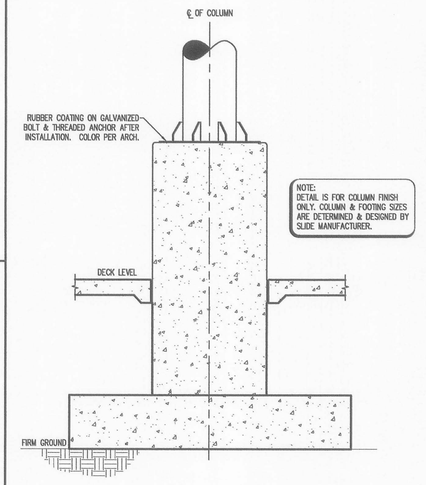

6 SP1.3 **STANCHION POST & ANCHOR**
3" = 1'-0" 04/26/07



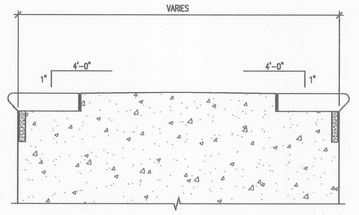

7 SP1.3 **ZERO ENTRY**
3/8" = 1'-0" 04/26/07



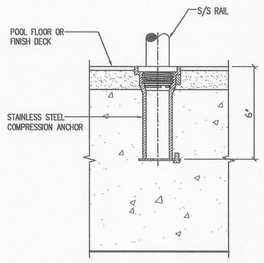

8 SP1.3 **TUNNEL ARCH**
1/2" = 1'-0" 04/26/07



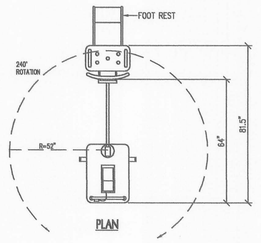

1 SP1.3 **WATERSLIDE FOOTING**
3/4" = 1'-0" 04/26/07



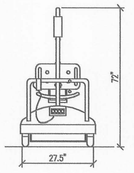

2 SP1.3 **CROWN DETAIL**
1" = 1'-0" 04/26/07




3 SP1.3 **COMPRESSION ANCHOR**
3" = 1'-0" 04/26/07




PLAN




ELEVATION

4 SP1.3 **PORTABLE POOL LIFT**
3/8" = 1'-0" 04/26/07

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Albuquerque, New Mexico 87106
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NOTICE OF EXTENDED PAYMENT PROVISIONS: THIS CONTRACT ALLOWS THE OWNER TO MAKE PAYMENT WITHIN 45 DAYS AFTER SUBMISSION OF AN UNDISPUTED REQUEST FOR PAYMENT

JOHN DOUGLAS COOK NEW MEXICO 16885 LICENSED PROFESSIONAL ENGINEER
6/24/07

| Issues/Revisions: | Date: |
|---|---|
| Bid Document | 6-24-07 |

Raton Aquatics Center
Raton, New Mexico

MCA Project No.: RAT 051-12

RECREATION POOL DETAILS

PROJECT ARCHITECT: John Quinn Pate, RA

Drawn by: EDW
Checked by: JDC

SP1.3

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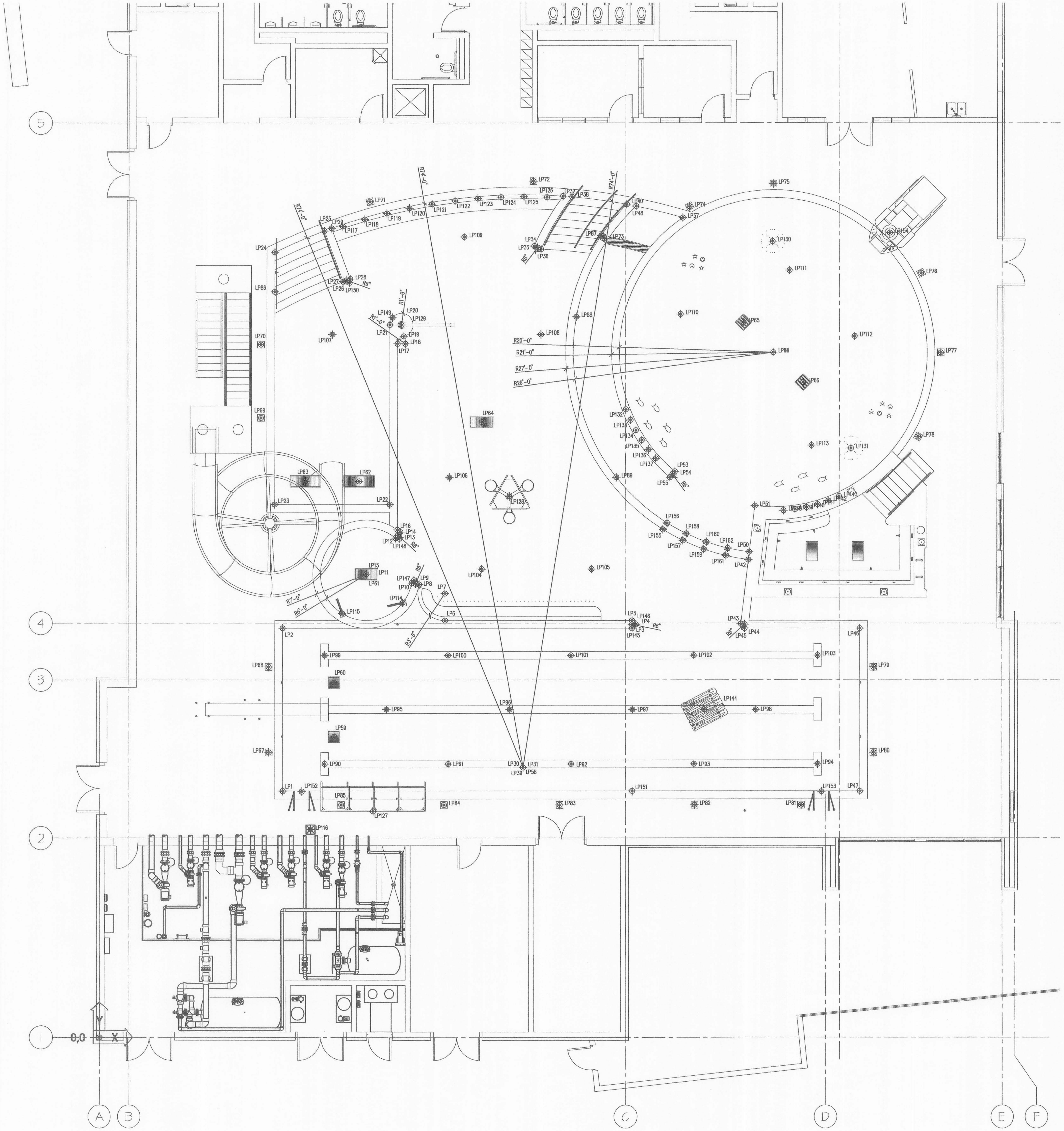


1 SP1.4 RECREATION POOL LOCATION POINT SCHEDULE
3/16" = 1'-0"
06/21/07

## LOCATION POINT SCHEDULE

| LP# | X | Y | DESCRIPTION | LP# | X | Y | DESCRIPTION |
|---|---|---|---|---|---|---|---|
| 1 | 24'-0 1/4" | 31'-8" | CONSTRUCTION POINT | 86 | 23'-0 1/4" | 96'-2 1/4" | WALL INLET |
| 2 | 24'-0 1/4" | 52'-8" | CONSTRUCTION POINT | 87 | 65'-6" | 103'-5 9/16" | WALL INLET |
| 3 | 69'-6 1/4" | 52'-8" | ARC END POINT | 88 | 62'-3 5/16" | 92'-11 1/2" | WALL INLET |
| 4 | 69'-6 1/4" | 53'-2" | ARC CENTER POINT | 89 | 67'-5 15/16" | 72'-2 1/16" | WALL INLET |
| 5 | 69'-6 1/4" | 53'-8" | ARC END POINT | 90 | 29'-6 1/4" | 35'-2" | FLOOR INLET |
| 6 | 45'-2 3/16" | 53'-8" | ARC END POINT | 91 | 45'-7" | 35'-2" | FLOOR INLET |
| 7 | 45'-2 3/16" | 57'-2" | ARC CENTER POINT | 92 | 61'-7" | 35'-2" | FLOOR INLET |
| 8 | 41'-10 5/16" | 58'-4 3/16" | ARC END POINT | 93 | 77'-7" | 35'-2" | FLOOR INLET |
| 9 | 41'-4 7/16" | 58'-5 5/16" | ARC CENTER POINT | 94 | 93'-7 3/4" | 35'-2" | FLOOR INLET |
| 10 | 40'-10 9/16" | 58'-6 7/16" | ARC END POINT | 95 | 37'-7" | 42'-2" | FLOOR INLET |
| 11 | 34'-11 13/16" | 59'-8" | ARC CENTER POINT | 96 | 53'-7" | 42'-2" | FLOOR INLET |
| 12 | 38'-9 5/16" | 64'-3 7/8" | ARC END POINT | 97 | 69'-7" | 42'-2" | FLOOR INLET |
| 13 | 39'-1 1/16" | 64'-8 1/2" | ARC CENTER POINT | 98 | 85'-7" | 42'-2" | FLOOR INLET |
| 14 | 39'-4 7/8" | 65'-1 1/8" | ARC END POINT | 99 | 29'-6 1/4" | 49'-2" | FLOOR INLET |
| 15 | 34'-11 13/16" | 59'-8" | ARC CENTER POINT | 100 | 45'-7" | 49'-2" | FLOOR INLET |
| 16 | 39'-0 1/4" | 65'-4 11/16" | CONSTRUCTION POINT | 101 | 61'-7" | 49'-2" | FLOOR INLET |
| 17 | 39'-0 1/4" | 89'-5 9/16" | ARC END POINT | 102 | 77'-7" | 49'-2" | FLOOR INLET |
| 18 | 40'-0 1/4" | 89'-5 9/16" | ARC CENTER POINT | 103 | 93'-7 3/4" | 49'-2" | FLOOR INLET |
| 19 | 39'-9 13/16" | 90'-5 5/16" | ARC END POINT | 104 | 49'-11 15/16" | 60'-3 7/8" | FLOOR INLET |
| 20 | 39'-6 1/4" | 91'-10 15/16" | ARC CENTER POINT | 105 | 64'-3 5/8" | 60'-3 7/8" | FLOOR INLET |
| 21 | 38'-0 1/4" | 91'-10 15/16" | ARC END POINT | 106 | 45'-9 1/16" | 72'-2 1/16" | FLOOR INLET |
| 22 | 38'-0 1/4" | 68'-7 15/16" | CONSTRUCTION POINT | 107 | 30'-6 1/4" | 90'-8" | FLOOR INLET |
| 23 | 23'-0 1/4" | 68'-7 15/16" | CONSTRUCTION POINT | 108 | 57'-8 3/16" | 90'-8" | FLOOR INLET |
| 24 | 23'-0 1/4" | 101'-3 1/2" | ARC END POINT | 109 | 47'-7 13/16" | 103'-3 1/4" | FLOOR INLET |
| 25 | 29'-5 1/2" | 104'-0 7/16" | ARC END POINT | 110 | 75'-10 1/16" | 93'-3 7/16" | FLOOR INLET |
| 26 | 31'-10 13/16" | 97'-5 13/16" | ARC END POINT | 111 | 89'-11 13/16" | 98'-11 5/16" | FLOOR INLET |
| 27 | 32'-4 7/16" | 97'-7 15/16" | ARC CENTER POINT | 112 | 98'-5 5/8" | 90'-5 1/2" | FLOOR INLET |
| 28 | 32'-10 1/16" | 97'-10" | ARC END POINT | 113 | 92'-9 3/4" | 76'-3 3/4" | FLOOR INLET |
| 29 | 30'-4 3/4" | 104'-4 5/8" | ARC END POINT | 114 | 39'-8 3/16" | 55'-11 9/16" | VORTEX NOZZLE |
| 30 | 55'-3 7/8" | 34'-8 9/16" | ARC CENTER POINT | 115 | 31'-9 5/8" | 54'-7 3/16" | VORTEX NOZZLE |
| 31 | 55'-3 7/8" | 34'-8 9/16" | ARC CENTER POINT | 116 | 27'-8" | 26'-9" | SIGHT SUMP |
| 32 | 60'-6 1/8" | 108'-6 3/8" | ARC END POINT | 117 | 31'-10 3/16" | 104'-7 1/2" | HYDROTHERAPY INLET |
| 33 | 87'-10 5/16" | 88'-4" | ARC CENTER POINT | 118 | 34'-8 1/2" | 105'-6 5/16" | HYDROTHERAPY INLET |
| 34 | 56'-9 1/8" | 102'-0 15/16" | ARC END POINT | 119 | 37'-7 5/16" | 106'-3 5/8" | HYDROTHERAPY INLET |
| 35 | 57'-2 5/8" | 101'-10 1/2" | ARC CENTER POINT | 120 | 40'-6 3/8" | 106'-11 9/16" | HYDROTHERAPY INLET |
| 36 | 57'-8 1/8" | 101'-8 1/16" | ARC END POINT | 121 | 43'-5 13/16" | 107'-6 1/16" | HYDROTHERAPY INLET |
| 37 | 87'-10 5/16" | 88'-4" | ARC CENTER POINT | 122 | 46'-5 7/16" | 107'-11 1/8" | HYDROTHERAPY INLET |
| 38 | 61'-8 5/16" | 108'-5 1/4" | ARC END POINT | 123 | 49'-5 1/4" | 108'-2 3/4" | HYDROTHERAPY INLET |
| 39 | 55'-3 7/8" | 34'-8 9/16" | ARC CENTER POINT | 124 | 52'-5 3/16" | 108'-4 7/8" | HYDROTHERAPY INLET |
| 40 | 68'-9 13/16" | 107'-5 11/16" | ARC END POINT | 125 | 55'-5 3/16" | 108'-5 9/16" | HYDROTHERAPY INLET |
| 41 | 87'-10 5/16" | 88'-4" | ARC CENTER POINT | 126 | 58'-5 3/16" | 108'-4 3/4" | HYDROTHERAPY INLET |
| 42 | 84'-7 3/4" | 61'-6 5/16" | ARC END POINT | 127 | 35'-10 1/16" | 29'-1 3/8" | ROCK CLIMBING WALL |
| 43 | 83'-7 13/16" | 53'-2 3/4" | ARC END POINT | 128 | 53'-6 13/16" | 69'-8 1/2" | TRIPLE BASKETBALL GOAL |
| 44 | 84'-1 3/4" | 53'-2" | ARC CENTER POINT | 129 | 39'-6 1/4" | 91'-10 15/16" | PIPE SHOWER |
| 45 | 84'-1 3/4" | 52'-8" | ARC END POINT | 130 | 87'-9 1/4" | 102'-8 3/16" | BUBBLERS |
| 46 | 99'-1 3/4" | 52'-8" | CONSTRUCTION POINT | 131 | 97'-11 13/16" | 75'-11 3/8" | BUBBLERS |
| 47 | 99'-1 3/4" | 31'-8" | CONSTRUCTION POINT | 132 | 68'-8 3/4" | 80'-11 11/16" | TUNNEL ARCH |
| 48 | 70'-0 1/8" | 107'-2 7/8" | ARC END POINT | 133 | 69'-3 13/16" | 79'-7 1/8" | TUNNEL ARCH |
| 49 | 87'-10 5/16" | 88'-4" | ARC CENTER POINT | 134 | 70'-0 1/16" | 78'-3 3/16" | TUNNEL ARCH |
| 50 | 84'-9 3/16" | 62'-6 1/4" | ARC END POINT | 135 | 70'-9 1/2" | 76'-11 13/16" | TUNNEL ARCH |
| 51 | 85'-5 3/4" | 68'-5 3/4" | ARC END POINT | 136 | 71'-8" | 75'-9 3/16" | TUNNEL ARCH |
| 52 | 87'-10 5/16" | 88'-4" | ARC CENTER POINT | 137 | 72'-7 1/2" | 74'-7 3/8" | TUNNEL ARCH |
| 53 | 75'-1 5/16" | 72'-11 1/8" | ARC END POINT | 138 | 89'-2 13/16" | 67'-10 9/16" | TUNNEL ARCH |
| 54 | 74'-9 1/2" | 72'-6 1/2" | ARC CENTER POINT | 139 | 90'-8 3/4" | 68'-0 7/16" | TUNNEL ARCH |
| 55 | 74'-5 11/16" | 72'-1 7/8" | ARC END POINT | 140 | 92'-2 7/16" | 68'-3 5/8" | TUNNEL ARCH |
| 56 | 87'-10 5/16" | 88'-4" | ARC CENTER POINT | 141 | 93'-7 7/8" | 68'-8 1/16" | TUNNEL ARCH |
| 57 | 76'-1 1/4" | 105'-8 13/16" | ARC END POINT | 142 | 95'-0 15/16" | 69'-1 3/4" | TUNNEL ARCH |
| 58 | 55'-3 7/8" | 34'-8 9/16" | ARC CENTER POINT | 143 | 96'-5 9/16" | 69'-8 11/16" | TUNNEL ARCH |
| 59 | 30'-9 1/4" | 38'-8" | CENTER OF MAIN DRAIN | 144 | 78'-11 1/8" | 42'-2" | LOG RAFT |
| 60 | 30'-9 1/4" | 45'-8" | CENTER OF MAIN DRAIN | 145 | 69'-6 1/4" | 52'-8" | SAFETY ROPE ANCHOR |
| 61 | 34'-11 13/16" | 59'-8" | CENTER OF MAIN DRAIN | 146 | 70'-0 1/4" | 53'-2" | SAFETY ROPE ANCHOR |
| 62 | 34'-0 1/4" | 71'-7 15/16" | CENTER OF MAIN DRAIN | 147 | 41'-2 3/8" | 58'-10 15/16" | SAFETY ROPE ANCHOR |
| 63 | 27'-0 1/4" | 71'-7 15/16" | CENTER OF MAIN DRAIN | 148 | 39'-3 1/8" | 64'-2 7/8" | SAFETY ROPE ANCHOR |
| 64 | 49'-11 5/16" | 79'-4" | CENTER OF MAIN DRAIN | 149 | 38'-4 3/16" | 92'-10 1/4" | SAFETY ROPE ANCHOR |
| 65 | 83'-11 11/16" | 92'-2 11/16" | CENTER OF MAIN DRAIN | 150 | 32'-9 1/8" | 97'-4 3/16" | SAFETY ROPE ANCHOR |
| 66 | 91'-9" | 84'-5 3/8" | CENTER OF MAIN DRAIN | 151 | 69'-6 1/4" | 31'-8" | SAFETY ROPE ANCHOR |
| 67 | 22'-3" | 36'-8" | SKIMMER | 152 | 26'-6 1/4" | 31'-7 1/4" | GRAB RAILS |
| 68 | 22'-3" | 47'-8" | SKIMMER | 153 | 94'-1 3/4" | 31'-7 1/4" | GRAB RAILS |
| 69 | 21'-3" | 79'-10 5/16" | SKIMMER | 154 | 103'-0 1/16" | 103'-9 5/8" | TRAIN SLIDE |
| 70 | 21'-3" | 89'-4 5/16" | SKIMMER | 155 | 73'-6 15/16" | 65'-5 1/16" | FLOW THRU GRATE |
| 71 | 35'-4 7/8" | 107'-9 13/16" | SKIMMER | 156 | 74'-1 1/4" | 66'-3 1/4" | FLOW THRU GRATE |
| 72 | 56'-8 3/16" | 110'-5 11/16" | SKIMMER | 157 | 76'-2" | 64'-0" | FLOW THRU GRATE |
| 73 | 65'-10 7/8" | 103'-0 13/16" | SKIMMER | 158 | 76'-7 3/16" | 64'-10 13/16" | FLOW THRU GRATE |
| 74 | 76'-11 11/16" | 107'-2 1/4" | SKIMMER | 159 | 78'-10 3/4" | 62'-10 3/8" | FLOW THRU GRATE |
| 75 | 87'-10 5/16" | 110'-1 1/4" | SKIMMER | 160 | 79'-2 3/4" | 63'-9 11/16" | FLOW THRU GRATE |
| 76 | 107'-0 3/4" | 98'-7 1/8" | SKIMMER | 161 | 81'-8 13/16" | 62'-0 7/16" | FLOW THRU GRATE |
| 77 | 109'-7 9/16" | 88'-4" | SKIMMER | 162 | 81'-11 9/16" | 63'-0 1/8" | FLOW THRU GRATE |
| 78 | 106'-8 9/16" | 77'-5 3/8" | SKIMMER | | | | |
| 79 | 100'-11" | 47'-8" | SKIMMER | | | | |
| 80 | 100'-11" | 36'-8" | SKIMMER | | | | |
| 81 | 91'-6" | 29'-10 3/4" | SKIMMER | | | | |
| 82 | 77'-8" | 29'-10 3/4" | SKIMMER | | | | |
| 83 | 60'-1" | 29'-10 3/4" | SKIMMER | | | | |
| 84 | 45'-0 1/2" | 29'-10 3/4" | SKIMMER | | | | |
| 85 | 31'-8" | 29'-10 3/4" | SKIMMER | | | | |

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NOTICE OF EXTENDED PAYMENT PROVISION: THIS CONTRACT ALLOWS THE OWNER TO MAKE PAYMENT WITHIN 45 DAYS AFTER SUBMISSION OF AN UNDISPUTED REQUEST FOR PAYMENT

JOHN DOUGLAS COOK
NEW MEXICO
16885
LICENSED PROFESSIONAL ENGINEER
6/24/07

| Issues/Revisions: | Date: |
|---|---|
| Bid Document | 6-24-07 |

Raton Aquatics Center
Raton, New Mexico

MCA Project No.: RAT 051-12

RECREATION POOL
LOCATION POINT
SCHEDULE

PROJECT ARCHITECT: John Quinn Pate, RA

Drawn by: EDW
Checked by: JDC

SP1.4

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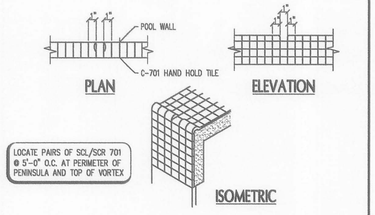
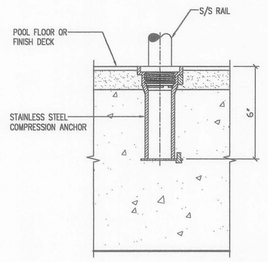
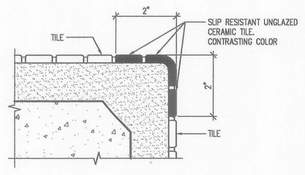


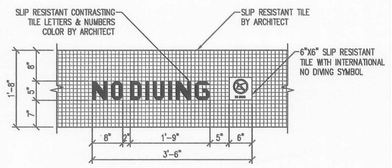

11 SP2.0 **SCR/SCL 701 NOSING**
1 1/2" = 1'-0" 04/26/07



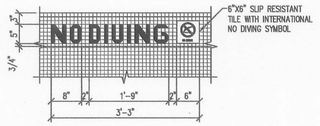

12 SP2.0 **COMPRESSION ANCHOR**
3" = 1'-0" 04/26/07



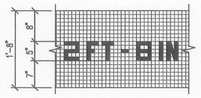

13 SP2.0 **CONTRASTING NOSING TILE**
6" = 1'-0" 04/26/07




**WARNING SIGN PLAN**



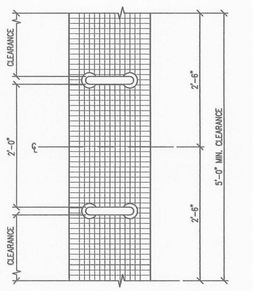

**WARNING SIGN ELEVATION**




**DEPTH MARKER PLAN**

**DEPTH MARKER ELEVATION**

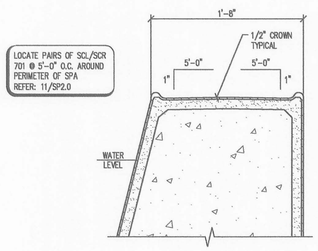
8 SP2.0 **DEPTH MARKERS & WARNING SIGNS**
3/4" = 1'-0" 04/26/07



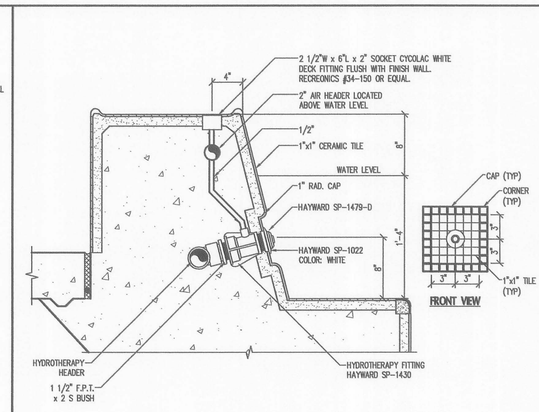

**PLAN**

**SECTION**

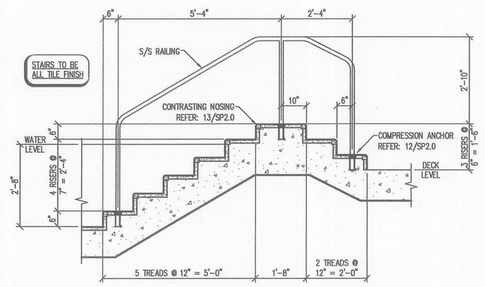
9 SP2.0 **SPA GRAB RAILS**
1" = 1'-0" 04/26/07



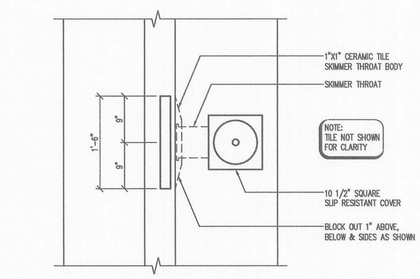

10 SP2.0 **CROWN DETAIL**
1 1/2" = 1'-0" 04/26/07



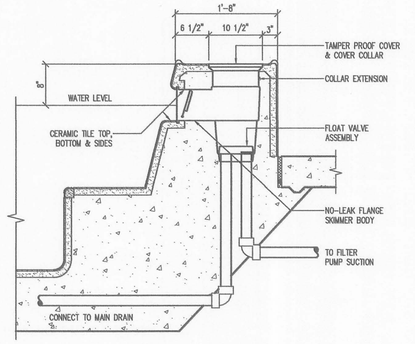

5 SP2.0 **HYDROTHERAPY FITTING**
1 1/2" = 1'-0" 04/26/07




6 SP2.0 **STAIR SECTION**
1/2" = 1'-0" 04/26/07

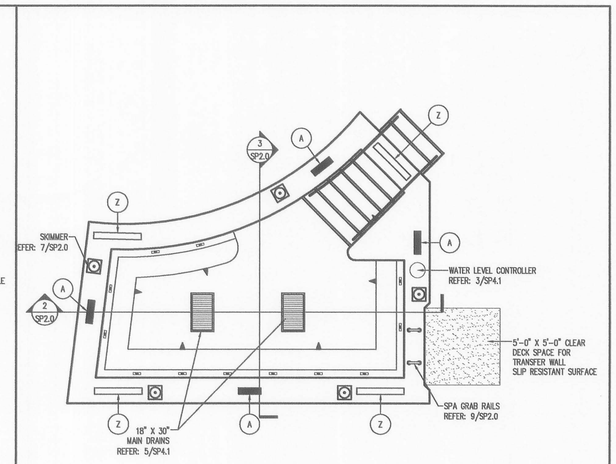



**PLAN**

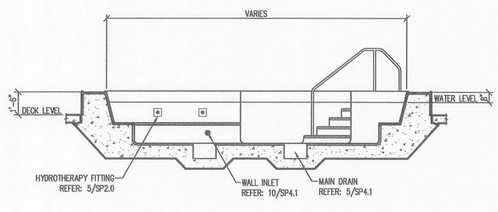



**SECTION**

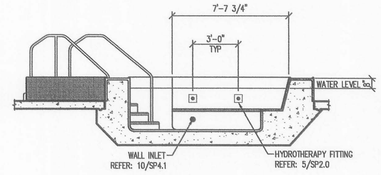
7 SP2.0 **SKIMMER DETAIL**
1" = 1'-0" 04/26/07



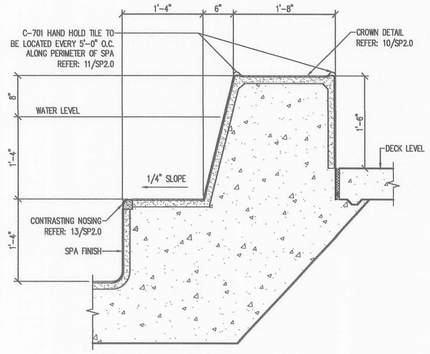

1 SP2.0 **SPA PLAN**
1/4" = 1'-0" 04/26/07




2 SP2.0 **SPA SECTION**
1/4" = 1'-0" 04/26/07




3 SP2.0 **SPA SECTION**
1/4" = 1'-0" 04/26/07




4 SP2.0 **HYDROTHERAPY BENCH**
1" = 1'-0" 04/26/07

**DEPTH MARKER SCHEDULE**

| ID | SIGNAGE |
|---|---|
| A | 2 FT – 8 IN |
| Z | NO DIVING |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NOTICE OF EXTENDED PAYMENT PROVISIONS: THIS CONTRACT ALLOWS THE OWNER TO MAKE PAYMENT WITHIN 45 DAYS AFTER SUBMISSION OF AN UNDISPUTED REQUEST FOR PAYMENT


JOHN DOUGLAS COOK NEW MEXICO 16885 LICENSED PROFESSIONAL ENGINEER
6/24/07

| Issues/Revisions: | Date: |
|---|---|
| Bid Document | 6-24-07 |

**Raton Aquatics Center**
Raton, New Mexico

MCA Project No.: RAT 051-12

**SPA PLAN, SECTIONS, & DETAILS (ALT #3)**

PROJECT ARCHITECT: John Quinn Pate, RA

Drawn by: EDW
Checked by: JDC

**SP2.0**


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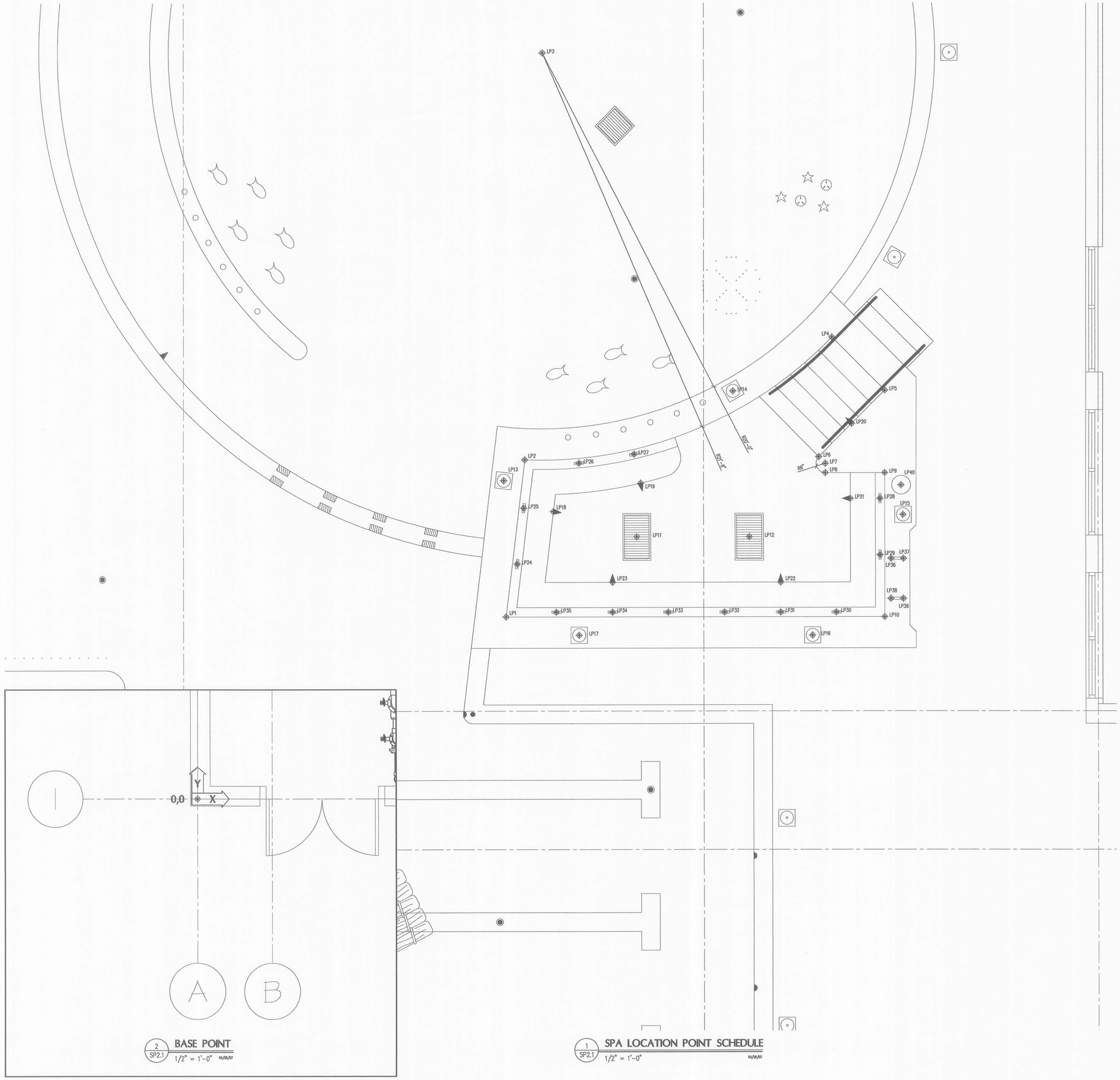


2 SP2.1 BASE POINT
1/2" = 1'-0" 04/25/07

1 SP2.1 SPA LOCATION POINT SCHEDULE
1/2" = 1'-0" 04/25/07

## LOCATION POINT SCHEDULE

| LP# | X | Y | DESCRIPTION |
|---|---|---|---|
| 1 | 85'-11 5/16" | 59'-4" | CONSTRUCTION POINT |
| 2 | 86'-11 5/16" | 66'-8 1/4" | ARC END POINT |
| 3 | 87'-10 5/16" | 88'-4" | ARC CENTER POINT |
| 4 | 103'-4 3/8" | 73'-2 3/8" | ARC END POINT |
| 5 | 108'-2 5/16" | 70'-4 7/16" | CONSTRUCTION POINT |
| 6 | 102'-7 15/16" | 66'-10 1/16" | ARC END POINT |
| 7 | 103'-0 1/8" | 66'-5 13/16" | ARC CENTER POINT |
| 8 | 103'-0 1/8" | 65'-11 13/16" | ARC END POINT |
| 9 | 106'-2 5/16" | 65'-11 13/16" | CONSTRUCTION POINT |
| 10 | 106'-2 5/16" | 59'-4" | CONSTRUCTION POINT |
| 11 | 92'-11 7/8" | 62'-7" | CENTER OF MAIN DRAIN |
| 12 | 98'-11 7/8" | 62'-7" | CENTER OF MAIN DRAIN |
| 13 | 85'-9 7/8" | 65'-6 15/16" | SKIMMER |
| 14 | 98'-0 11/16" | 70'-4" | SKIMMER |
| 15 | 107'-2 1/16" | 63'-9 3/16" | SKIMMER |
| 16 | 102'-3 13/16" | 57'-4 1/4" | SKIMMER |
| 17 | 88'-9 13/16" | 57'-4 1/4" | SKIMMER |
| 18 | 88'-5 1/2" | 63'-11 3/16" | WALL INLET |
| 19 | 93'-1 11/16" | 65'-5 3/16" | WALL INLET |
| 20 | 104'-5 1/8" | 68'-7 1/4" | WALL INLET |
| 21 | 104'-4 5/16" | 64'-7 7/16" | WALL INLET |
| 22 | 100'-7 5/16" | 60'-2" | WALL INLET |
| 23 | 91'-7 5/16" | 60'-2" | WALL INLET |
| 24 | 86'-6 3/8" | 61'-1 11/16" | HYDROTHERAPY INLET |
| 25 | 86'-10 5/8" | 64'-1 7/16" | HYDROTHERAPY INLET |
| 26 | 89'-9 7/8" | 66'-6 1/16" | HYDROTHERAPY INLET |
| 27 | 92'-9 3/8" | 68'-11 3/4" | HYDROTHERAPY INLET |
| 28 | 105'-11 5/16" | 64'-7 7/16" | HYDROTHERAPY INLET |
| 29 | 105'-11 5/16" | 61'-7 7/16" | HYDROTHERAPY INLET |
| 30 | 103'-7 5/16" | 58'-7" | HYDROTHERAPY INLET |
| 31 | 100'-7 5/16" | 58'-7" | HYDROTHERAPY INLET |
| 32 | 97'-7 5/16" | 58'-7" | HYDROTHERAPY INLET |
| 33 | 94'-7 5/16" | 58'-7" | HYDROTHERAPY INLET |
| 34 | 91'-7 5/16" | 58'-7" | HYDROTHERAPY INLET |
| 35 | 88'-7 5/16" | 58'-7" | HYDROTHERAPY INLET |
| 36 | 106'-6 5/16" | 61'-5 3/16" | GRAB RAIL |
| 37 | 107'-2 5/16" | 61'-5 3/16" | GRAB RAIL |
| 38 | 106'-6 5/16" | 59'-3 5/8" | GRAB RAIL |
| 39 | 107'-2 5/16" | 59'-3 5/8" | GRAB RAIL |
| 40 | 107'-0 13/16" | 65'-4" | WATER LEVEL CONTROLLER |


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JOHN DOUGLAS DODK NEW MEXICO 16885 LICENSED PROFESSIONAL ENGINEER 6/25/07

| Issues/Revisions: | Date: |
|---|---|
| Bid Document | 6-24-07 |

Raton Aquatics Center
Raton, New Mexico

MCA Project No.: RAT 051-12

SPA
LOCATION POINT
SCHEDULE

PROJECT ARCHITECT: John Quinn Pate, RA

Drawn by: EDW
Checked by: JDC

SP2.1


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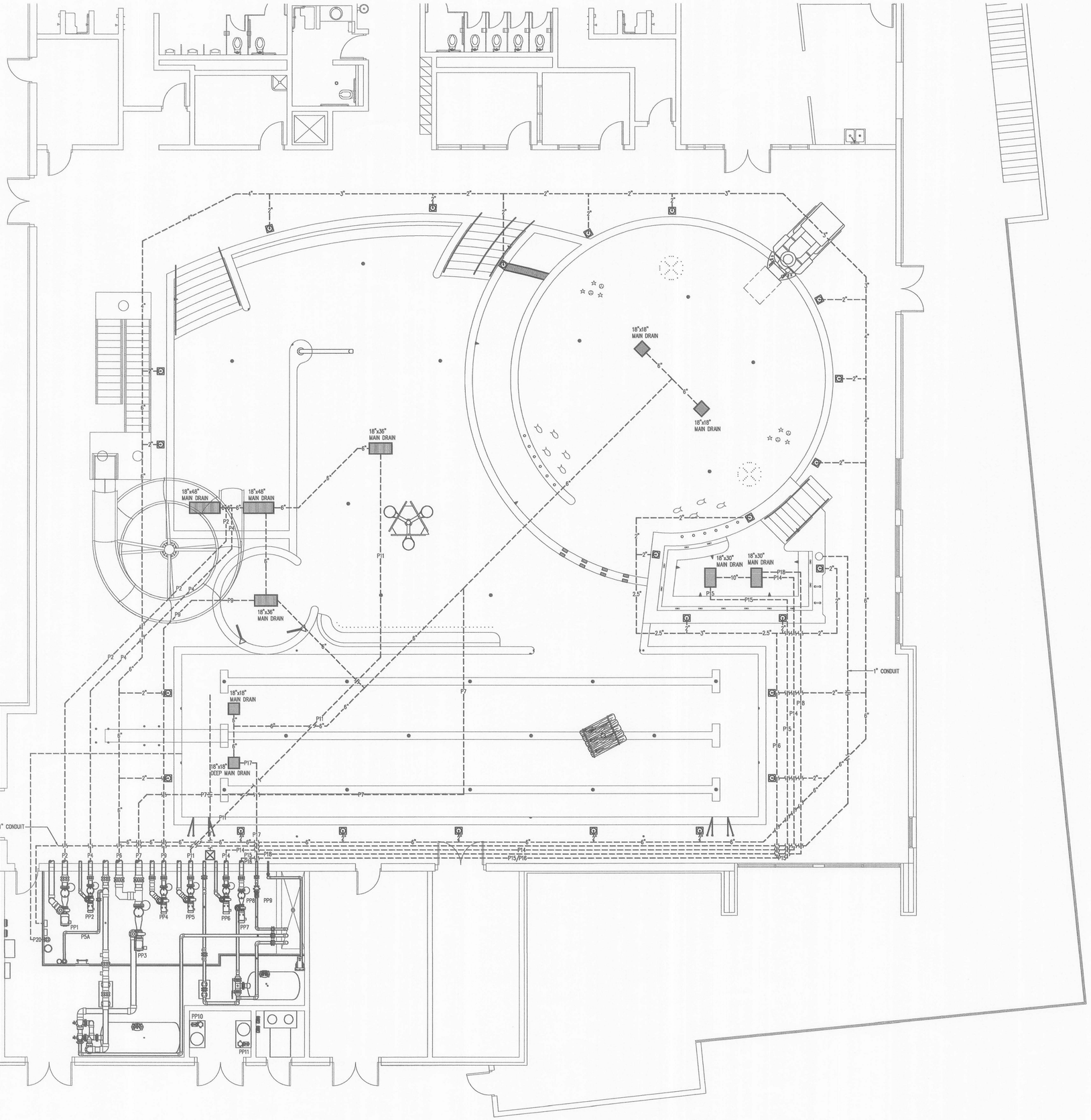


1 SP3.0 **POOL PIPING PLAN – SUCTION**
3/16" = 1'-0" 05/18/07

## GENERAL PIPING NOTES
(PERTAINS TO ALL PIPING)

1. PROVIDE ALL MATERIALS AND EQUIPMENT AND PERFORM ALL LABOR REQUIRED TO INSTALL COMPLETE AND OPERABLE PIPING SYSTEMS AS INDICATED ON THE DRAWINGS, AS SPECIFIED AND AS REQUIRED BY CODE.

2. PIPE SIZES INDICATED ARE NOMINAL, I.P.S.

3. UNLESS OTHERWISE NOTED, ALL OVERHEAD PIPING SHALL BE TIGHT TO UNDERSIDE OF STRUCTURE OR SLAB.

4. ALL BALANCING VALVES AND BUTTERFLY VALVES SHALL BE PROVIDED WITH POSITION INDICATORS AND MAXIMUM ADJUSTABLE STOPS (MEMORY STOPS).

5. ALL VALVES SHALL BE INSTALLED SO THAT THE VALVE REMAINS IN SERVICE WHEN THE EQUIPMENT OR PIPING ON THE EQUIPMENT SIDE OF THE VALVE IS REMOVED.

6. PROVIDE CHAIN WHEEL OPERATORS FOR ALL VALVES IN EQUIPMENT ROOMS MOUNTED GREATER THAN 7'-0" ABOVE FINISHED FLOOR; CHAIN SHALL EXTEND TO 7'-0" ABOVE FINISHED FLOOR LEVEL.

7. INSTALL ALL PIPING WITHOUT FORCING OR SPRINGING.

8. ALL PIPING WORK SHALL BE COORDINATED WITH ALL TRADES AND SITE CONDITIONS. OFFSETS, EXPANSION LOOPS, OR TRANSITIONS IN PIPING AROUND OBSTRUCTIONS SHALL BE PROVIDED AT NO ADDITIONAL COST TO THE OWNER.

9. ALL PIPING INDICATED SHALL BE CONSIDERED DIAGRAMMATIC.

10. ALL SWIMMING POOL PIPING ROUTED BELOW THE POOL SHELL SHALL BE CONCRETE ENCASED, SCHEDULE 40 PVC OR ALL SCHEDULE 80 PVC, UNLESS OTHERWISE NOTED.
REFER: 9/SP4.1

11. ALL UNDERGROUND OR EXPOSED SWIMMING POOL PIPING SHALL BE SCHEDULE 80 PVC, UNLESS OTHERWISE NOTED.

12. ALL DIMENSIONS INDICATED FROM THE FINISH WALL SURFACE AND DO NOT ACCOUNT FOR ANY VARIATIONS IN EITHER GRADE OR SLOPE DISTANCES.

13. THE CHEMICAL SENSOR LINE SHALL BE A 3/4" TO 1" DIAMETER, SCHEDULE 80 PVC PIPE EXTENDED FROM THE WET CELL SENSOR TO IT'S RESPECTIVE FILL FUNNEL AND THE BACKWASH CATCH BASIN OR PUMP SUCTION.

14. CONTRACTOR SHALL ADJUST ALL FLOOR INLETS SO AS TO ACHIEVE AN EVEN FLOW DISTRIBUTION THROUGHOUT SYSTEMS.

15. ACID VENT PIPING TO ATMOSPHERE

## PUMP SCHEDULE

| ID | DESCRIPTION | SPECIFICATIONS GPM | TOH | HP | PUMP CONTROL REQUIREMENTS REFER TO ELECTRICAL |
|---|---|---|---|---|---|
| PP1 | RECREATION POOL WATERSLIDE | 800 | 45 | 15 | -- |
| PP2 | RECREATION POOL HYDROTHERAPY | 300 | 35 | 5 | -- |
| PP3 | RECREATION POOL RECIRCULATION | 1,000 | 75 | 25 | -- |
| PP4 | RECREATION POOL VORTEX | 600 | 30 | 7.5 | -- |
| PP5 | RECREATION POOL FEATURE | 350 | 35 | 5 | -- |
| PP6 | SPA HYDROTHERAPY | 360 | 45 | 7.5 | -- |
| PP7 | SPA RECIRCULATION | 265 | 65 | 7.5 | -- |
| PP8 | DRAIN DOWN | 100 | -- | 1.5 | D |
| PP9 | AIR BLOWER | 65 CFM | 120" OF H20 | 5 | -- |
| PP10 | CHLORINE BOOSTER PUMP | -- | -- | 3/4 | D |
| PP11 | CHLORINE BOOSTER PUMP | -- | -- | 3/4 | |

| | | | |
|---|---|---|---|
| A | REMOTE START AND STOP | B | 15 MINUTE TIMER |
| C | EMERGENCY STOP | D | INTERLOCK WITH RECIRCULATION PUMP |

## PIPE SCHEDULE

| ID | DESCRIPTION |
|---|---|
| P1 | 8" TO SLIDE FROM PP1 |
| P2 | 8" FROM RECREATION POOL MAIN DRAIN TO PP1 |
| P3 | 4" TO RECREATION POOL HYDROTHERAPY JETS FROM PP2 |
| P4 | 6" FROM RECREATION POOL MAIN DRAINS TO PP2 |
| P5 | 8" TO RECREATION POOL INLETS FROM FILTER |
| P5A | 3" QUICK FILL FROM P5 TO SPA FILL FUNNEL |
| P6 | 10" FROM RECREATION POOL SKIMMERS TO PP3 |
| P7 | 10" FROM RECREATION POOL MAIN DRAINS TO PP3 |
| P8A | 6" TO UPPER VORTEX NOZZLES FROM PP4 |
| P8B | 6" TO LOWER VORTEX NOZZLES FROM PP4 |
| P9 | 6" FROM RECREATION POOL MAIN DRAINS TO PP4 |
| P10 | 6" TO PLAY FEATURES FROM PP5 |
| P11 | 6" FROM RECREATION POOL MAIN DRAINS TO PP5 |
| P12 | 4" TO SPA INLETS FROM FILTER |
| P13 | 4" TO SPA HYDROTHERAPY JETS FROM PP6 |
| P14 | 6" FROM SPA MAIN DRAINS TO PP6 |
| P15 | 6" FROM SPA MAIN DRAINS TO PP7 |
| P16 | 6" FROM SPA SKIMMERS TO PP7 |
| P17 | 3" FROM RECREATION POOL DEEP MAIN DRAIN TO PP8 |
| P18 | 3" FROM SPA MAIN DRAIN TO PP8 |
| P19A | 1 1/2" AIR LINE TO BUBBLERS FROM PP9 |
| P19B | 1 1/2" AIR LINE TO BUBBLERS FROM PP9 |
| P19C | 1 1/2" AIR LINE TO BUBBLERS FROM PP9 |
| P20 | 2" STATIC LINE FROM RECREATION POOL TO WATER LEVEL CONTROLLER |
| P21 | 3" FILL LINE TO SPA FROM FILL FUNNEL |
| P22 | 6" FILL LINE TO RECREATION POOL FROM FILL FUNNEL |
| P23 | 3" TO BACKWASH FROM PP8 |
| P24 | 4" TO BACKWASH FROM RECREATION POOL FILTER |
| P25 | 4" TO BACKWASH FROM SPA FILTER |

## PIPING LEGEND

| LEGEND | ITEM |
|---|---|
| | WALL INLET REFER: 10/SP4.1 |
| | FLOOR INLET REFER: 6/SP4.1 |
| | MAIN DRAIN REFER: 5/SP4.1 |
| | DEEP MAIN DRAIN REFER: 4/SP4.1 |
| | SKIMMER REFER: 2/SP1.2 & 7/SP2.0 |
| | BELOW GRADE PIPE |
| | VORTEX NOZZLE REFER: 11/SP1.2 |
| | HYDROTHERAPY INLET REFER: 9/SP1.2 & 5/SP2.0 |


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NOTICE OF EXTENDED PAYMENT PROVISIONS: THIS CONTRACT ALLOWS THE OWNER TO MAKE PAYMENT WITHIN 45 DAYS AFTER SUBMISSION OF AN UNDISPUTED REQUEST FOR PAYMENT

JOHN DOUGLAS CRAIN NEW MEXICO 16885 LICENSED PROFESSIONAL ENGINEER 6/24/07

| Issues/Revisions: | Date: |
|---|---|
| Bid Document | 6-24-07 |

**Raton Aquatics Center**
Raton, New Mexico

MCA Project No.: RAT 051-12

**POOL PIPING PLAN - SUCTION**

PROJECT ARCHITECT: John Quinn Pate, RA

Drawn by: EDW
Checked by: JDC

**SP3.0**

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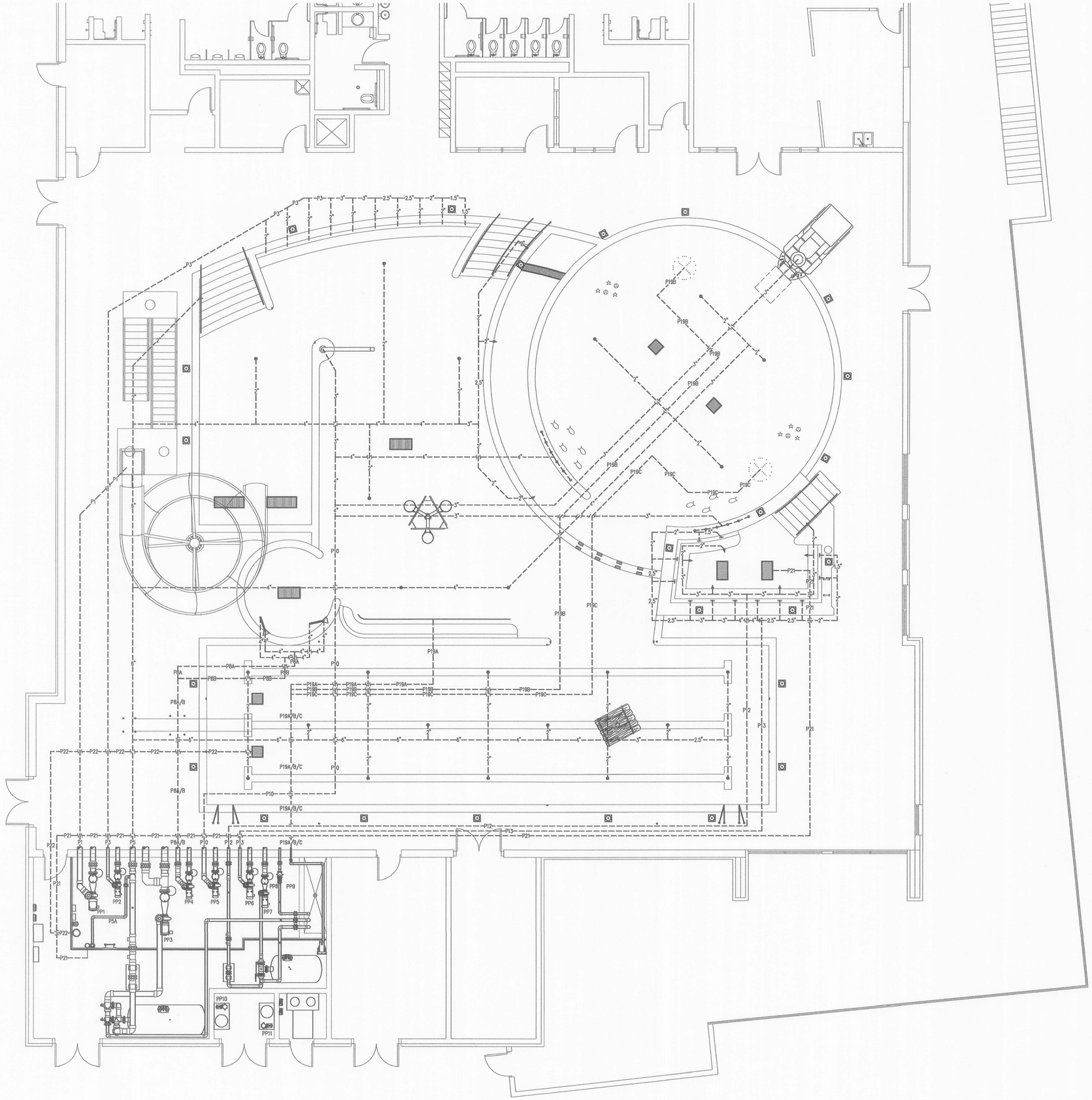


1 SP3.1 **POOL PIPING PLAN – RETURN**
3/16" = 1'-0"

## GENERAL PIPING NOTES
(PERTAINS TO ALL PIPING)

1. PROVIDE ALL MATERIALS AND EQUIPMENT AND PERFORM ALL LABOR REQUIRED TO INSTALL COMPLETE AND OPERABLE PIPING SYSTEMS AS INDICATED ON THE DRAWINGS, AS SPECIFIED AND AS REQUIRED BY CODE.

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5. ALL VALVES SHALL BE INSTALLED SO THAT THE VALVE REMAINS IN SERVICE WHEN THE EQUIPMENT OR PIPING ON THE EQUIPMENT SIDE OF THE VALVE IS REMOVED.

6. PROVIDE CHAIN WHEEL OPERATORS FOR ALL VALVES IN EQUIPMENT ROOMS MOUNTED GREATER THAN 7'-0" ABOVE FINISHED FLOOR; CHAIN SHALL EXTEND TO 7'-0" ABOVE FINISHED FLOOR LEVEL.

7. INSTALL ALL PIPING WITHOUT FORCING OR SPRINGING.

8. ALL PIPING WORK SHALL BE COORDINATED WITH ALL TRADES AND SITE CONDITIONS. OFFSETS, EXPANSION LOOPS, OR TRANSITIONS IN PIPING AROUND OBSTRUCTIONS SHALL BE PROVIDED AT NO ADDITIONAL COST TO THE OWNER.

9. ALL PIPING INDICATED SHALL BE CONSIDERED DIAGRAMMATIC.

10. ALL SWIMMING POOL PIPING ROUTED BELOW THE POOL SHELL SHALL BE CONCRETE ENCASED, SCHEDULE 40 PVC OR ALL SCHEDULE 80 PVC, UNLESS OTHERWISE NOTED.
REFER: 9/SP4.1

11. ALL UNDERGROUND OR EXPOSED SWIMMING POOL PIPING SHALL BE SCHEDULE 80 PVC, UNLESS OTHERWISE NOTED.

12. ALL DIMENSIONS INDICATED FROM THE FINISH WALL SURFACE AND DO NOT ACCOUNT FOR ANY VARIATIONS IN EITHER GRADE OR SLOPE DISTANCES.

13. THE CHEMICAL SENSOR LINE SHALL BE A 3/4" TO 1" DIAMETER, SCHEDULE 80 PVC PIPE EXTENDED FROM THE WET CELL SENSOR TO ITS RESPECTIVE FILL FUNNEL AND THE BACKWASH CATCH BASIN OR PUMP SUCTION.

14. CONTRACTOR SHALL ADJUST ALL FLOOR INLETS SO AS TO ACHIEVE AN EVEN FLOW DISTRIBUTION THROUGHOUT SYSTEMS.

15. ACID VENT PIPING TO ATMOSPHERE

## PUMP SCHEDULE

| ID | DESCRIPTION | SPECIFICATIONS GPM | TDH | HP | PUMP CONTROL REQUIREMENTS REFER TO ELECTRICAL |
|---|---|---|---|---|---|
| PP1 | RECREATION POOL WATERSLIDE | 800 | 45 | 15 | – |
| PP2 | RECREATION POOL HYDROTHERAPY | 300 | 35 | 5 | – |
| PP3 | RECREATION POOL RECIRCULATION | 1,000 | 75 | 25 | – |
| PP4 | RECREATION POOL VORTEX | 600 | 30 | 7.5 | – |
| PP5 | RECREATION POOL FEATURE | 350 | 35 | 5 | – |
| PP6 | SPA HYDROTHERAPY | 360 | 45 | 7.5 | – |
| PP7 | SPA RECRCULATION | 265 | 65 | 7.5 | – |
| PP8 | DRAIN DOWN | 100 | – | 1.5 | D |
| PP9 | AIR BLOWER | 65 CFM | 120" OF H20 | 5 | – |
| PP10 | CHLORINE BOOSTER PUMP | – | – | 3/4 | D |
| PP11 | CHLORINE BOOSTER PUMP | – | – | 3/4 | |

| | | | |
|---|---|---|---|
| A | REMOTE START AND STOP | B | 15 MINUTE TIMER |
| C | EMERGENCY STOP | D | INTERLOCK WITH RECIRCULATION PUMP |

## PIPE SCHEDULE

| ID | DESCRIPTION |
|---|---|
| P1 | 8" TO SLIDE FROM PP1 |
| P2 | 8" FROM RECREATION POOL MAIN DRAIN TO PP1 |
| P3 | 4" TO RECREATION POOL HYDROTHERAPY JETS FROM PP2 |
| P4 | 6" FROM RECREATION POOL MAIN DRAINS TO PP2 |
| P5 | 8" TO RECREATION POOL INLETS FROM FILTER |
| P5A | 3" QUICK FILL FROM P5 TO SPA FILL FUNNEL |
| P6 | 10" FROM RECREATION POOL SKIMMERS TO PP3 |
| P7 | 10" FROM RECREATION POOL MAIN DRAINS TO PP3 |
| P8A | 6" TO UPPER VORTEX NOZZLES FROM PP4 |
| P8B | 6" TO LOWER VORTEX NOZZLES FROM PP4 |
| P9 | 6" FROM RECREATION POOL MAIN DRAINS TO PP4 |
| P10 | 6" TO PLAY FEATURES FROM PP5 |
| P11 | 6" FROM RECREATION POOL MAIN DRAINS TO PP5 |
| P12 | 4" TO SPA INLETS FROM FILTER |
| P13 | 4" TO SPA HYDROTHERAPY JETS FROM PP6 |
| P14 | 6" FROM SPA MAIN DRAINS TO PP6 |
| P15 | 6" FROM SPA MAIN DRAINS TO PP7 |
| P16 | 6" FROM SPA SKIMMERS TO PP7 |
| P17 | 3" FROM RECREATION POOL DEEP MAIN DRAIN TO PP8 |
| P18 | 3" FROM SPA MAIN DRAIN TO PP8 |
| P19A | 1 1/2" AIR LINE TO BUBBLERS FROM PP9 |
| P19B | 1 1/2" AIR LINE TO BUBBLERS FROM PP9 |
| P19C | 1 1/2" AIR LINE TO BUBBLERS FROM PP9 |
| P20 | 2" STATIC LINE FROM RECREATION POOL TO WATER LEVEL CONTROLLER |
| P21 | 3" FILL LINE TO SPA FROM FILL FUNNEL |
| P22 | 6" FILL LINE TO RECREATION POOL FROM FILL FUNNEL |
| P23 | 3" TO BACKWASH FROM PP8 |
| P24 | 4" TO BACKWASH FROM RECREATION POOL FILTER |
| P25 | 4" TO BACKWASH FROM SPA FILTER |

## PIPING LEGEND

| LEGEND | ITEM |
|---|---|
| ▲ | WALL INLET REFER: 10/SP4.1 |
| ⊕ | FLOOR INLET REFER: 6/SP4.1 |
| | MAIN DRAIN REFER: 5/SP4.1 |
| | DEEP MAIN DRAIN REFER: 4/SP4.1 |
| | SKIMMER REFER: 2/SP1.2 & 7/SP2.0 |
| | BELOW GRADE PIPE |
| | VORTEX NOZZLE REFER: 11/SP1.2 |
| | HYDROTHERAPY INLET REFER: 9/SP1.2 & 5/SP2.0 |


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JOHN DOUGLAS COOK NEW MEXICO 16885 LICENSED PROFESSIONAL ENGINEER 6/24/07

| Issues/Revisions: | Date: |
|---|---|
| Bid Document | 6-24-07 |

**Raton Aquatics Center**
Raton, New Mexico

MCA Project No.: RAT 051-12

**POOL PIPING PLAN - RETURN**

PROJECT ARCHITECT: John Quinn Pate, RA

Drawn by: EDW
Checked by: JDC

**SP3.1**

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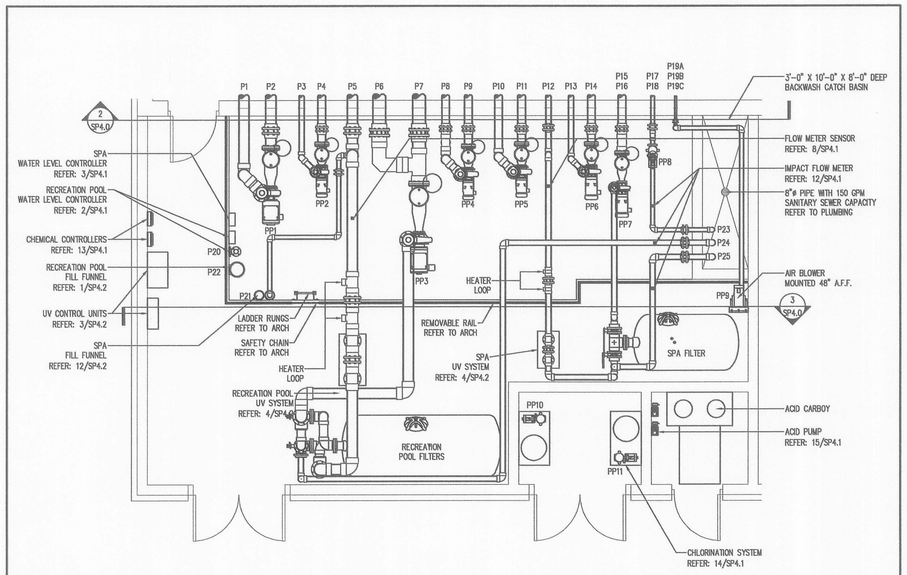
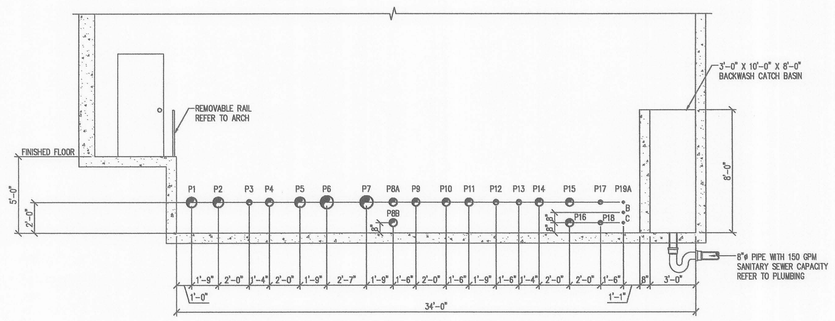
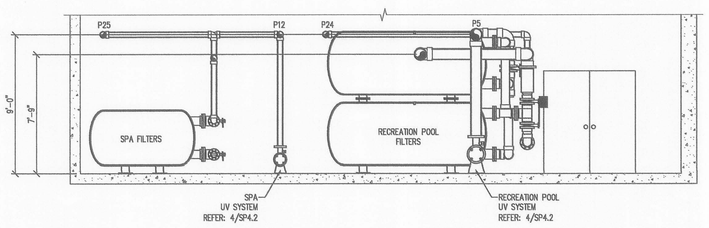



1 SP4.0 **POOL MECHANICAL ROOM PLAN**
1/4" = 1'-0" 04/26/07




2 SP4.0 **POOL MECHANICAL ROOM SECTION**
1/4" = 1'-0" 04/26/07




3 SP4.0 **POOL MECHANICAL ROOM SECTION**
1/4" = 1'-0" 04/26/07

## PUMP SCHEDULE

| ID | DESCRIPTION | SPECIFICATIONS GPM | TDH | HP | PUMP CONTROL REQUIREMENTS REFER TO ELECTRICAL |
|---|---|---|---|---|---|
| PP1 | RECREATION POOL WATERSLIDE | 800 | 45 | 15 | – |
| PP2 | RECREATION POOL HYDROTHERAPY | 300 | 35 | 5 | – |
| PP3 | RECREATION POOL RECIRCULATION | 1,000 | 75 | 25 | – |
| PP4 | RECREATION POOL VORTEX | 600 | 30 | 7.5 | – |
| PP5 | RECREATION POOL FEATURE | 350 | 35 | 5 | – |
| PP6 | SPA HYDROTHERAPY | 360 | 45 | 7.5 | – |
| PP7 | SPA RECIRCULATION | 265 | 65 | 7.5 | – |
| PP8 | DRAIN DOWN | 100 | – | 1.5 | D |
| PP9 | AIR BLOWER | 65 CFM | 120" OF H20 | 5 | – |
| PP10 | CHLORINE BOOSTER PUMP | – | – | 3/4 | D |
| PP11 | CHLORINE BOOSTER PUMP | – | – | 3/4 | |

A REMOTE START AND STOP — B 15 MINUTE TIMER
C EMERGENCY STOP — D INTERLOCK WITH RECIRCULATION PUMP

## PIPE SCHEDULE

| ID | DESCRIPTION |
|---|---|
| P1 | 8" TO SLIDE FROM PP1 |
| P2 | 8" FROM RECREATION POOL MAIN DRAIN TO PP1 |
| P3 | 4" TO RECREATION POOL HYDROTHERAPY JETS FROM PP2 |
| P4 | 6" FROM RECREATION POOL MAIN DRAINS TO PP2 |
| P5 | 8" TO RECREATION POOL INLETS FROM FILTER |
| P5A | 3" QUICK FILL FROM P5 TO SPA FILL FUNNEL |
| P6 | 10" FROM RECREATION POOL SKIMMERS TO PP3 |
| P7 | 10" FROM RECREATION POOL MAIN DRAINS TO PP3 |
| P8A | 6" TO UPPER VORTEX NOZZLES FROM PP4 |
| P8B | 6" TO LOWER VORTEX NOZZLES FROM PP4 |
| P9 | 6" FROM RECREATION POOL MAIN DRAINS TO PP4 |
| P10 | 6" TO PLAY FEATURES FROM PP5 |
| P11 | 6" FROM RECREATION POOL MAIN DRAINS TO PP5 |
| P12 | 4" TO SPA INLETS FROM FILTER |
| P13 | 4" TO SPA HYDROTHERAPY JETS FROM PP6 |
| P14 | 6" FROM SPA MAIN DRAINS TO PP6 |
| P15 | 6" FROM SPA MAIN DRAINS TO PP7 |
| P16 | 6" FROM SPA SKIMMERS TO PP7 |
| P17 | 3" FROM RECREATION POOL DEEP MAIN DRAIN TO PP8 |
| P18 | 3" FROM SPA MAIN DRAIN TO PP8 |
| P19A | 1 1/2" AIR LINE TO BUBBLERS FROM PP9 |
| P19B | 1 1/2" AIR LINE TO BUBBLERS FROM PP9 |
| P19C | 1 1/2" AIR LINE TO BUBBLERS FROM PP9 |
| P20 | 2" STATIC LINE FROM RECREATION POOL TO WATER LEVEL CONTROLLER |
| P21 | 3" FILL LINE TO SPA FROM FILL FUNNEL |
| P22 | 6" FILL LINE TO RECREATION POOL FROM FILL FUNNEL |
| P23 | 3" TO BACKWASH FROM PP8 |
| P24 | 4" TO BACKWASH FROM RECREATION POOL FILTER |
| P25 | 4" TO BACKWASH FROM SPA FILTER |

## GENERAL POOL MECHANICAL ROOM NOTES

1. ALL POOL EQUIPMENT MUST BE INSTALLED ON HOUSEKEEPING PADS PROVIDED BY THE CONTRACTOR UNLESS NOTED OTHERWISE.

2. EQUIPMENT ROOM FLOOR MUST SLOPE ¼" TO 1/2" TO FLOOR DRAINS.

3. PUMP PIT FLOOR MUST SLOPE MIN ¼" TO 1/2" TO SUMP PIT. REFER TO PLUMBING.

4. THE FLOOR DRAINS INDICATED ARE IN APPROXIMATE LOCATIONS. REFER TO PLUMBING

5. PROVIDE HOSE BIBBS FOR HOUSE CLEANING PURPOSES. REFER BUILDING MECHANICAL DRAWINGS.

6. THE INSIDE SURFACES OF THE BACKWASH CATCH BASIN SHALL BE WATERPROOFED. REFER TO SPECIFICATION.

7. VENTILATION OF POOL MECHANICAL ROOM AND CHEMICAL STORAGE AREAS PER LOCAL AND STATE CODE. VENTILATION OF POOL MECHANICAL ROOM AND CHEMICAL STORAGE AREAS AT 12 AIR CHANGES PER HOUR. REFER TO MECHANICAL.

8. THE FOLLOWING INFORMATION SHALL BE LAMINATED AND POSTED IN THE POOL MECHANICAL ROOM: BACKWASH PROCEDURE, POOL FILLING & DRAINING, VALVE REFERENCE CHART, POOL MECHANICAL ROOM PLAN, POOL PIPING SCHEMATICS, & POOL SYSTEMS SCHEMATICS.

PIPING

1. MINIMUM 7' – 0" CLEARANCE BENEATH ALL OVERHEAD PIPING.

2. INSTALL AND SUPPORT OVERHEAD AND VERTICAL PIPING PER SPECIFICATION REQUIREMENTS.

3. LABEL AND IDENTIFY ALL PIPING IN COMPLIANCE WITH THE SPECIFICATIONS.

4. ALL FLOW METERS SHALL BE SIZED TO MATCH THE PIPE ON WHICH IT IS INSTALLED. PROVIDE PRESSURE GAUGES ON INFLUENT AND EFFLUENT SIDE OF EACH FILTRATION SYSTEM AND A FULL LINE SIZE FLOW METER ON FILTER RETURN.

5. THE BACKWASH PIPING SHALL TERMINATE NO CLOSER THAN 6" ABOVE THE FLOOD RIM OF THE BACKWASH CATCH BASIN OR TWICE THE PIPE DIAMETER, WHICHEVER IS GREATER.

7. HYDROSTATICALLY TEST ALL PIPING AT 50 PSI FOR TWO HOURS AND MAINTAIN A PRESSURE OF 20 PSI IN ALL PIPING THROUGHOUT CONSTRUCTION. SECURE ALL FIXTURES PER SPECIFICATION REQUIREMENTS BEFORE HYDROSTATIC TEST.

FILTERS

1. ALL FILTER SUPPORTS SHALL BE SEISMICALLY RATED FOR THE SEISMIC ZONE IN WHICH IT IS INSTALLED, IN ACCORDANCE WITH LOCAL AND/OR STATE REQUIREMENTS.

2. FILTER TANK ASSEMBLIES SHALL BEAR THE NATIONAL SANITATION FOUNDATION SEAL OF APPROVAL FOR A MAXIMUM FLOW RATE OF 20 GPM PER SQUARE FOOT OF FILTER MEDIA.

3. FILTER MANUFACTURER TO CERTIFY FILTER MEDIA

4. VALVES SHALL BE PROVIDED TO BACKWASH EACH FILTER VESSEL INDEPENDENTLY.

5. THE BACKWASH THROTTLING VALVE(S) HANDLE SHALL BE REMOVED AND TURNED OVER TO THE OWNER ONCE THE BACKWASH FLOW RATE(S) HAVE BEEN TESTED, ADJUSTED AND BALANCED.

6. PROVIDE 1" DIAMETER, SCHEDULE 80 PIPE FROM THE AUTOMATIC AIR VENT ON EACH FILTER VESSEL TO THE NEAREST FLOOR DRAIN OR BACKWASH CATCH BASIN. THE VENT PIPE SHALL BE SLOPED TO THE DRAIN.

CHEMICAL TREATMENT

1. CHEMICAL FEED REQUIREMENTS – REFER TO THE POOL SYSTEMS SCHEMATIC(S) ON SP5.0.

2. INTERLOCK POOL CIRCULATION PUMP(S) WITH ITS CORRESPONDING WATER CHEMISTRY CONTROLLER, CHEMICAL FEED PUMP(S), HEATER(S) AND FILTER SYSTEM.

3. PROVIDE SIGNAGE ON CHEMICAL ROOM DOORS IN COMPLIANCE WITH THE STATE FIRE CODE.

4. SECURE CHEMICAL METERING PUMP FEED LINES TO WALL AND/OR OVERHEAD WITH CLIPS OR DEVICES THAT DO NOT CRIMP, DISTORT OR ALLOW HIGH AND LOW AREAS IN TUBING RUNS. PLACE CHECK VALVE AND SHUT-OFF VALVE BEFORE LINES ENTER POOL RETURN PIPING.

5. WATER CHEMISTRY CONTROLLERS SHALL CONTROL THE SANITIZING SYSTEM AND PH CONTROL SYSTEM AND SHUT THEM DOWN UPON LOSS OF SAMPLE STREAM FLOW.

6. THE CHEMICAL CONTROL SYSTEM BYPASS LINE SHALL SAMPLE WATER AFTER THE FILTERS, AND BEFORE THE HEATER BYPASS LINE.

7. VERIFY REMOTE ACCESS CAPABILITY TO ALL CHEMICAL CONTROLLERS. REFER TO ELECTRICAL.

PUMPS

1. PROVIDE INFLUENT AND EFFLUENT GAUGES FOR EACH PUMP. PRESSURE GAUGES HAVE A RANGE OF 0 –100 PSI. COMPOUND GAUGES HAVE A RANGE OF 0 – 30 HG / 0 – 60 PSI.

2. REMOTE START/STOP FOR RECREATION POOL FEATURE PUMPS (PP1, PP2, PP4 AND PP5). FIELD LOCATED BY ARCHITECT.

3. TIMER FOR SPA HYDROTHERAPY PUMP (PP6). FIELD LOCATED BY ARCHITECT. REFER TO ELECTRICAL.

4. EMERGENCY SHUTOFF SWITCH PER ARTICLE 680-38 FOR SPA PUMPS (PP6 AND PP7) AND RECREATION POOL PUMPS (PP1, PP2, PP3, PP4 AND PP5). FIELD LOCATED BY ARCHITECT. REFER TO ELECTRICAL.

ELECTRICAL

1. GFCI'S PROVIDED AT OUTLETS. REFER TO ELECTRICAL.

2. POOL EQUIPMENT ROOM AND CHEMICAL STORAGE AREAS SHALL BE PROVIDED WITH ARTIFICIAL LIGHTING SUFFICIENT TO ILLUMINATE ALL EQUIPMENT AND SUPPLIES. REFER TO ELECTRICAL

HEATERS

1. PROVIDE A MINIMUM OF TWO (2) PERMANENT AIR SUPPLY OPENINGS COMMUNICATING DIRECTLY THROUGH THE WALL TO OUTSIDE AIR: ONE (1) WITHIN 12 INCHES OF THE CEILING, AND THE OTHER WITHIN 12 INCHES OF THE FLOOR. EACH OPENING MUST HAVE A MINIMUM FREE AREA OF ONE SQUARE INCH PER 4,000 BTUH INPUT OF THE TOTAL INPUT RATING OF ALL APPLIANCES IN THE EQUIPMENT ROOM. REFER TO MECHANICAL.

2. PROVIDE CPVC TRUE UNION BALL SHUT-OFF VALVES ON HEATER INFLUENT AND EFFLUENT LINES FOR ISOLATION.

3. PROVIDE THERMOMETERS ON ALL HEATER INFLUENT LINES, EFFLUENT LINES AND MAIN RETURN LINES AFTER HEATER BYPASS LOOP(S) AS PER MANUFACTURES RECOMMENDATIONS.

4. PROVIDE CPVC PIPE BEFORE AND AFTER HEATER WITH FLANGED CONNECTIONS WHERE CPVC PIPE ADJOINS PVC PIPE.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NOTICE OF EXTENDED PAYMENT PROVISIONS: THIS CONTRACT ALLOWS THE OWNER TO MAKE PAYMENT WITHIN 60 DAYS AFTER SUBMISSION OF AN UNDISPUTED REQUEST FOR PAYMENT


JOHN DOUGLAS DOAK NEW MEXICO 16885 LICENSED PROFESSIONAL ENGINEER
6/24/07

| Issues/Revisions: | Date: |
|---|---|
| Bid Document | 6-24-07 |

Raton Aquatics Center
Raton, New Mexico

MCA Project No.: RAT 051-12

POOL MECHANICAL ROOM PLAN & SECTIONS

PROJECT ARCHITECT: John Quinn Pate, RA

Drawn by: EDW
Checked by: JDC

SP4.0


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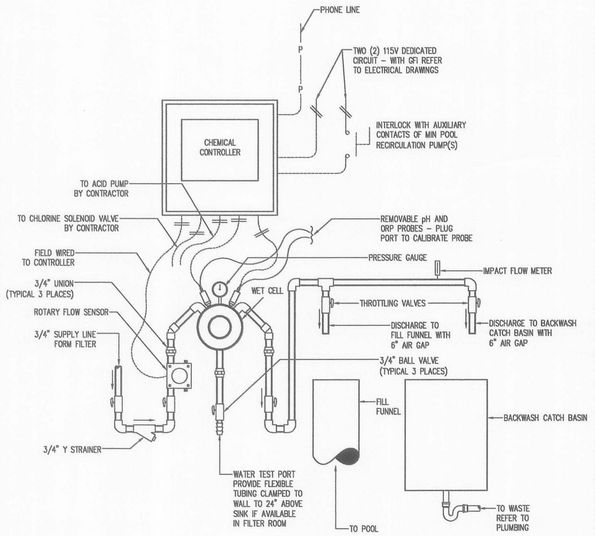
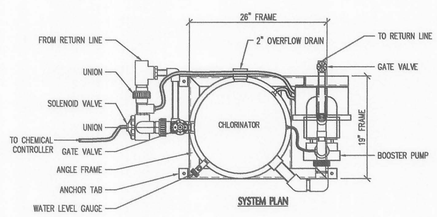
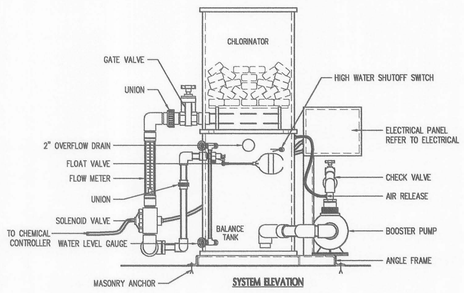



13 / SP4.1 **CHEMICAL CONTROLLER**
NTS 05/08/07

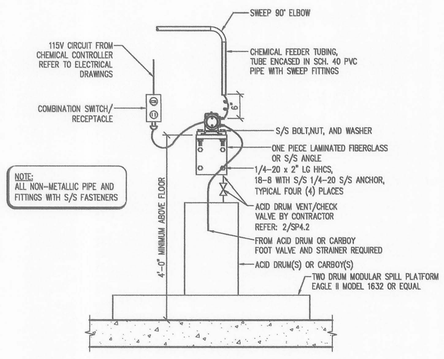



SYSTEM PLAN

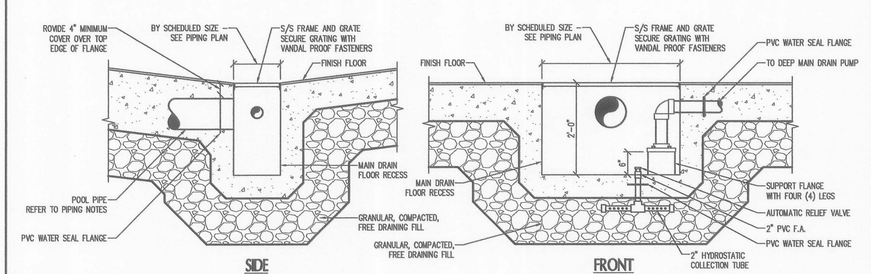



SYSTEM ELEVATION

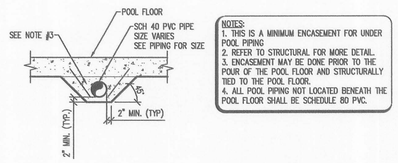
14 / SP4.1 **CHLORINATION SYSTEM**
1" = 1'-0" 05/08/07



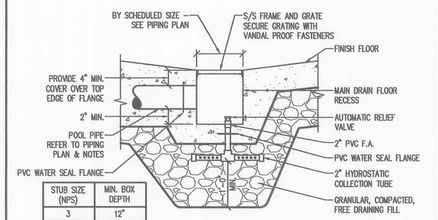

15 / SP4.1 **ACID PUMP**
3/4" = 1'-0" 05/08/07




4 / SP4.1 **DEEP MAIN DRAIN**
3/4" = 1'-0" 05/08/07

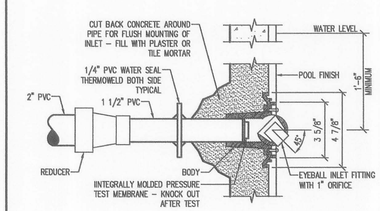



9 / SP4.1 **CONCRETE ENCASED PIPE**
3/4" = 1'-0" 05/08/07

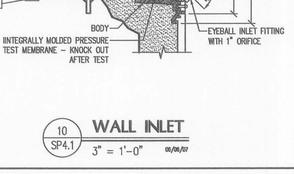



| STUB SIZE (NPS) | MIN. BOX DEPTH |
|---|---|
| 3 | 12" |
| 4 | 12" |
| 6 | 14" |
| 8 | 16" |
| 10 | 18" |
| 12 | 20" |

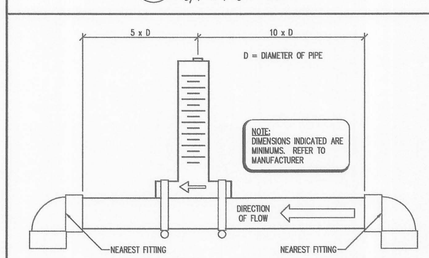
5 / SP4.1 **MAIN DRAIN**
3/4" = 1'-0" 05/08/07



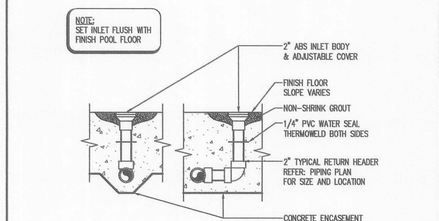

10 / SP4.1 **WALL INLET**
3" = 1'-0" 05/08/07



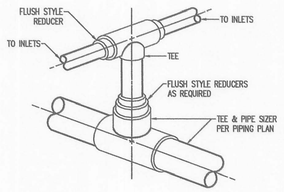

11 / SP4.1 **WATER SEAL**
3/4" = 1'-0" 05/08/07



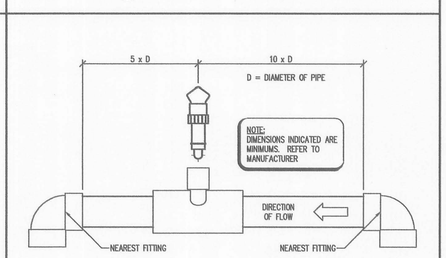

12 / SP4.1 **IMPACT FLOW METER**
3/4" = 1'-0" 05/08/07



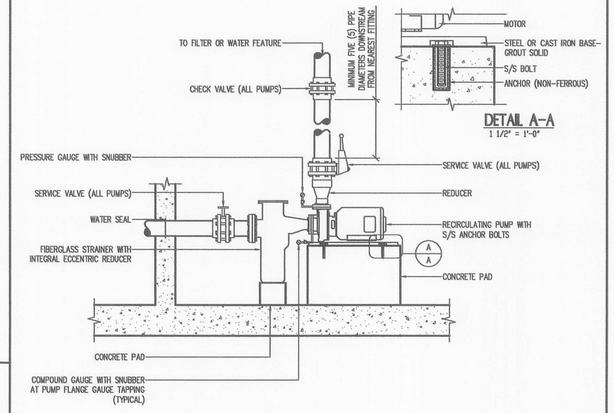

6 / SP4.1 **FLOOR INLET**
1" = 1'-0" 05/08/07



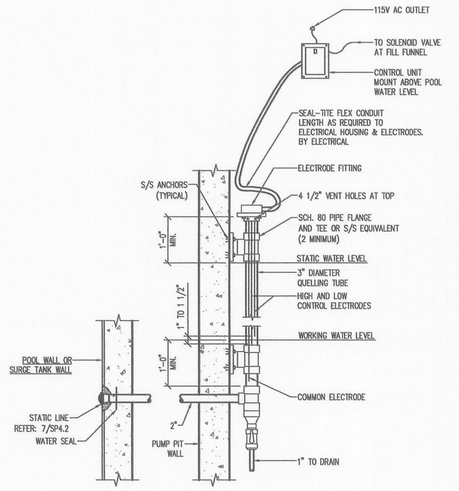

7 / SP4.1 **PIPE CONNECTION**
1" = 1'-0" 05/08/07



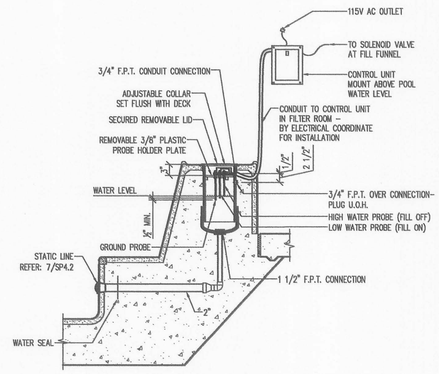

8 / SP4.1 **FLOW METER SENSOR**
3/4" = 1'-0" 05/08/07




1 / SP4.1 **TYPICAL PUMP DETAIL**
1/2" = 1'-0" 05/08/07




2 / SP4.1 **RECREATION POOL WATER LEVEL CONTROLLER**
3/4" = 1'-0" 05/08/07




3 / SP4.1 **SPA WATER LEVEL CONTROLLER**
3/4" = 1'-0" 05/08/07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NOTICE OF EXTENDED PAYMENT PROVISIONS: THIS CONTRACT ALLOWS THE OWNER TO MAKE PAYMENT WITHIN 45 DAYS AFTER SUBMISSION OF AN UNDISPUTED REQUEST FOR PAYMENT

JOHN DOUGLAS QUINN NEW MEXICO 16885 LICENSED PROFESSIONAL ENGINEER 6/24/07

| Issues/Revisions: | Date: |
|---|---|
| Bid Document | 6-24-07 |

Raton Aquatics Center
Raton, New Mexico

MCA Project No.: RAT 051-12

POOL MECHANICAL DETAILS

PROJECT ARCHITECT: John Quinn Pate, RA

Drawn by: EDW
Checked by: JDC

SP4.1

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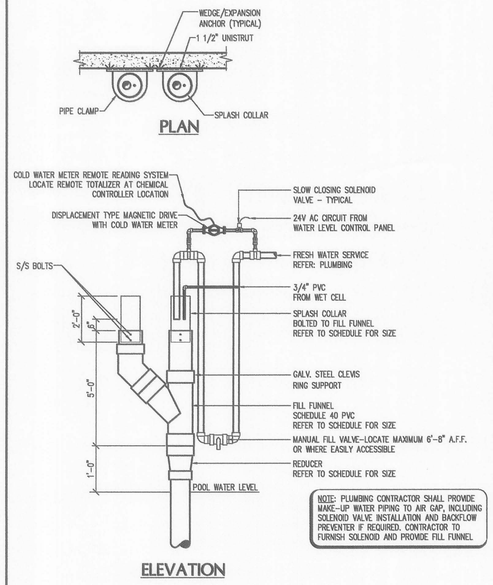
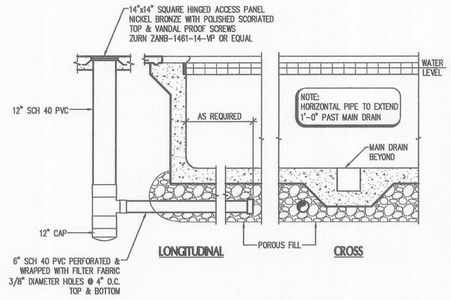
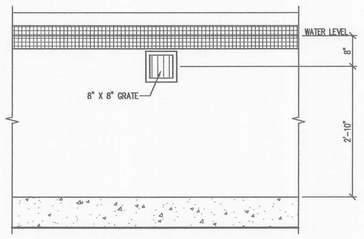


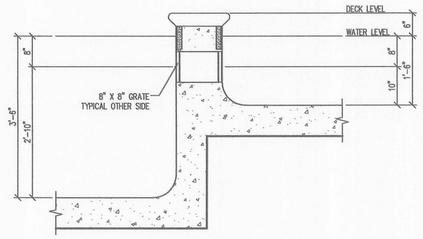

| FILL FUNNEL SCHEDULE | | | | | |
|---|---|---|---|---|---|
| POOL | FRESH WATER SUPPLY GPM (MIN.) | FILL FUNNEL SIZE | REDUCER SIZE | SPLASH COLLAR SIZE | FILL LINE SIZE TO POOL |
| RECREATION | 125 | 10 | 10" – 6" | 8" | 6" |
| SPA | 55 | 6 | 6" – 3" | 4" | 3" |

12 / SP4.2 **SPA FILL FUNNEL** 3/8" = 1'-0" 04/26/07

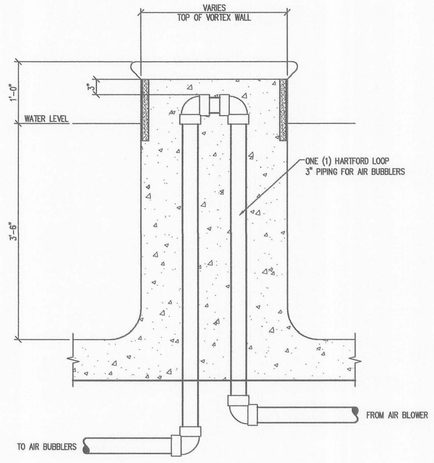



9 / SP4.2 **SIGHT SUMP** 3/8" = 1'-0" 04/26/07

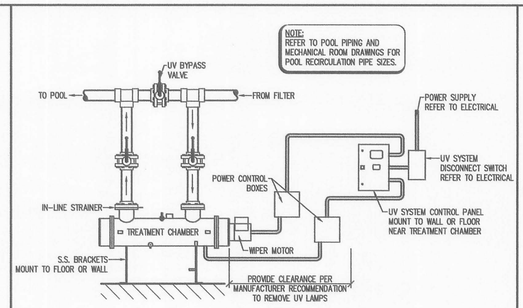


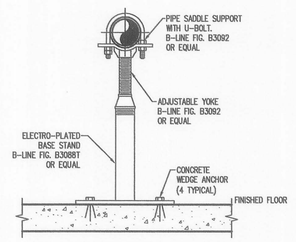

10 / SP4.2 **FLOW THRU** 3/4" = 1'-0" 04/26/07



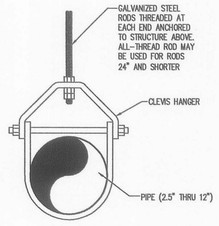

11 / SP4.2 **HARTFORD LOOP** 1" = 1'-0" 04/26/07



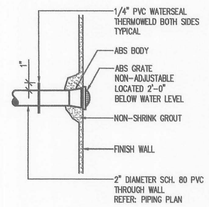

4 / SP4.2 **UV TREATMENT SYSTEM** 1/2" = 1'-0" 04/26/07



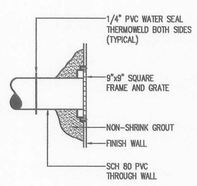

5 / SP4.2 **PIPE SUPPORT** 3" = 1'-0" 04/26/07



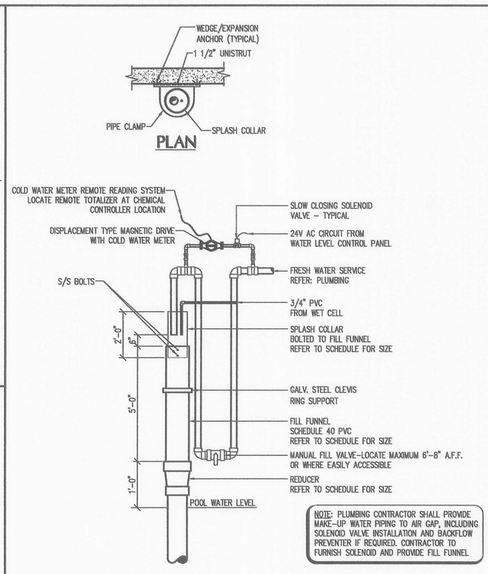

6 / SP4.2 **CLEVIS PIPE HANGER** 1 1/2" = 1'-0" 04/26/07




7 / SP4.2 **STATIC LINE** 1 1/2" = 1'-0" 04/26/07

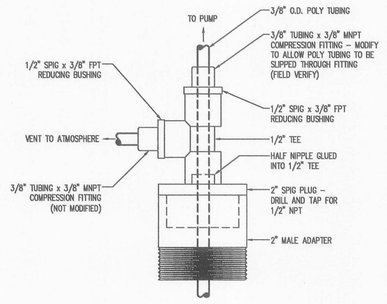



8 / SP4.2 **FILL LINE** 1" = 1'-0" 04/26/07

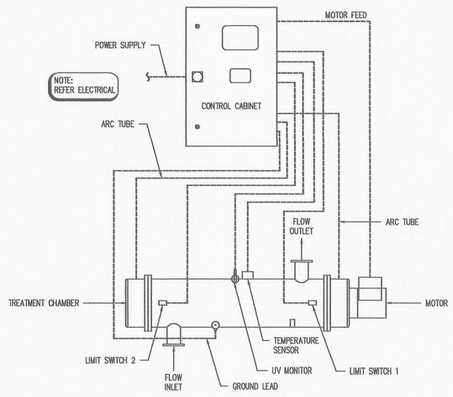



| FILL FUNNEL SCHEDULE | | | | | |
|---|---|---|---|---|---|
| POOL | FRESH WATER SUPPLY GPM (MIN.) | FILL FUNNEL SIZE | REDUCER SIZE | SPLASH COLLAR SIZE | FILL LINE SIZE TO POOL |
| RECREATION | 125 | 10 | 10" – 6" | 8" | 6" |
| SPA | 55 | 6 | 6" – 3" | 4" | 3" |

1 / SP4.2 **RECREATION POOL FILL FUNNEL** 3/8" = 1'-0" 04/26/07




2 / SP4.2 **ACID VENT PIPING** 6" = 1'-0" 04/26/07




3 / SP4.2 **UV TREATMENT** NTS 04/26/07

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NOTICE OF EXTENDED PAYMENT PROVISION: THIS CONTRACT ALLOWS THE OWNER TO MAKE PAYMENT WITHIN 45 DAYS AFTER SUBMISSION OF AN UNDISPUTED REQUEST FOR PAYMENT

JOHN DOUGLAS COOKE NEW MEXICO 16885 LICENSED PROFESSIONAL ENGINEER 6/22/07

| Issues/Revisions: | Date: |
|---|---|
| Bid Document | 6-24-07 |

Raton Aquatics Center
Raton, New Mexico

MCA Project No.: RAT 051-12

POOL MECHANICAL DETAILS

PROJECT ARCHITECT: John Quinn Pate, RA

Drawn by: EDW
Checked by: JDC

SP4.2

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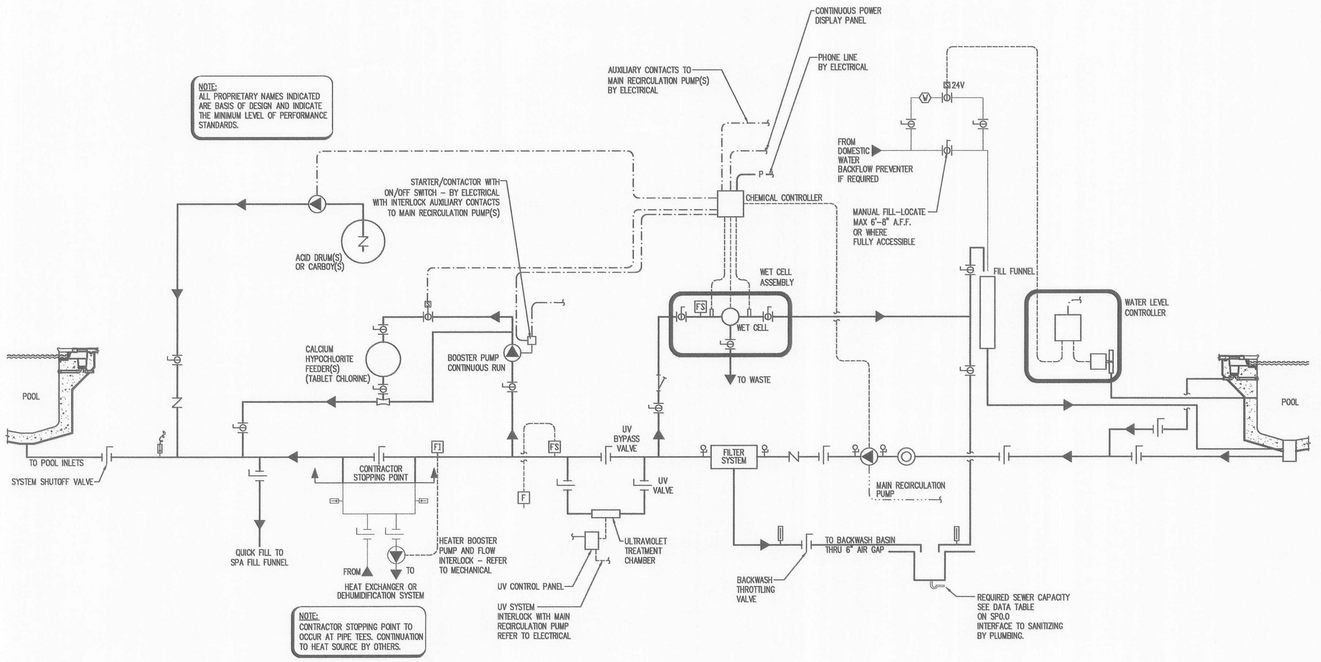


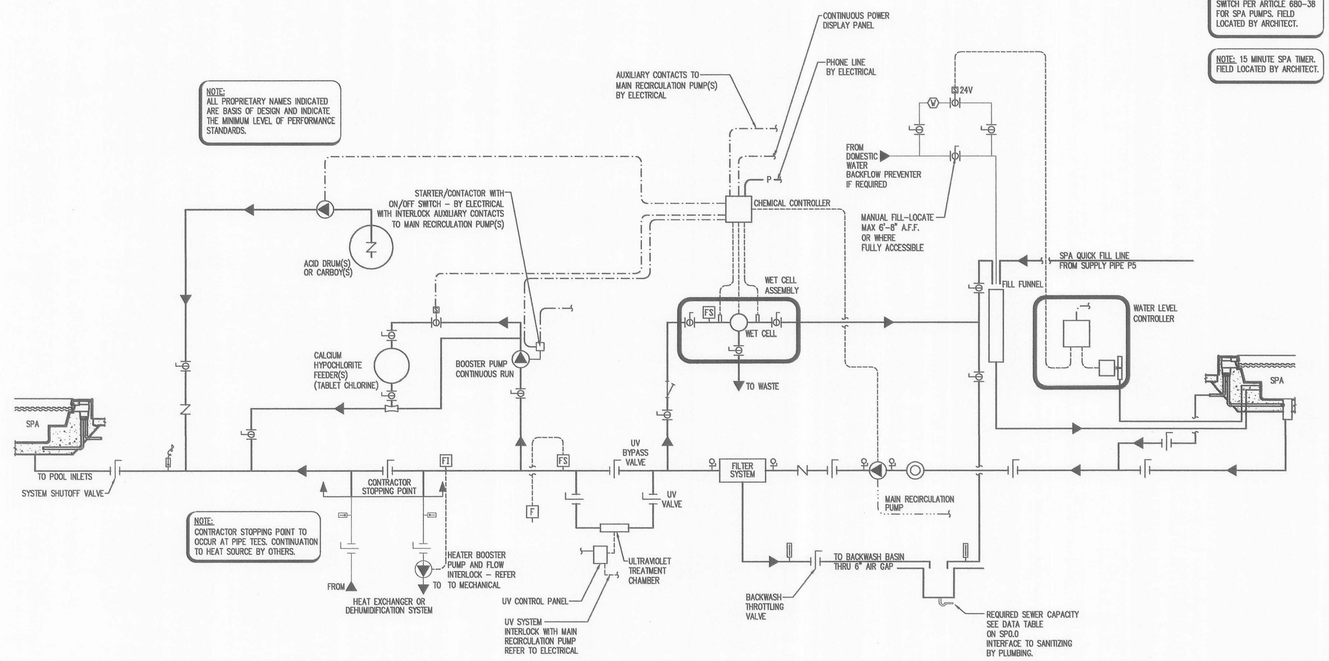

1 SP5.0 **RECREATION POOL SYSTEMS SCHEMATIC**

NTS

04/27/07

| LEGEND | |
|---|---|
| | LOW VOLTAGE CONTROL |
| | WATER LINE |
| | 1 PHASE POWER |
| | 3 PHASE POWER |
| P | PHONE LINE |

| SYMBOL LEGEND | |
|---|---|
| BUTTERFLY VALVE | |
| BALL VALVE | |
| SOLENOID VALVE | |
| SWING GATE CHECK VALVE | |
| THREE WAY VALVE | |
| FLOW DIRECTION | |
| PUMP | |
| HAIR AND LINT STRAINER | |
| "Y" STRAINER | |
| FLOW INTERLOCK | FI |
| FLOW METER | F |
| FLOW SENSOR | FS |
| IMPACT FLOW METER | |
| VENTURI FLOW METER | |
| WATER METER | V |
| PRESSURE GAUGE AND COCK | |
| DIGITAL TEMP SENSOR | |
| THERMOMETER | |
| SOLENOID | S |




2 SP5.0 **SPA SYSTEMS SCHEMATIC (ALTERNATE #1)**

NTS

04/27/07

| LEGEND | |
|---|---|
| | LOW VOLTAGE CONTROL |
| | WATER LINE |
| | 1 PHASE POWER |
| | 3 PHASE POWER |
| P | PHONE LINE |

| SYMBOL LEGEND | |
|---|---|
| BUTTERFLY VALVE | |
| BALL VALVE | |
| SOLENOID VALVE | |
| SWING GATE CHECK VALVE | |
| THREE WAY VALVE | |
| FLOW DIRECTION | |
| PUMP | |
| HAIR AND LINT STRAINER | |
| "Y" STRAINER | |
| FLOW INTERLOCK | FI |
| FLOW METER | F |
| FLOW SENSOR | FS |
| IMPACT FLOW METER | |
| VENTURI FLOW METER | |
| WATER METER | V |
| PRESSURE GAUGE AND COCK | |
| DIGITAL TEMP SENSOR | |
| THERMOMETER | |
| SOLENOID | S |

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JOHN DOUGLAS QUINN NEW MEXICO 16885 LICENSED PROFESSIONAL ARCHITECT 6.24.07

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|---|---|
| Bid Document | 6-24-07 |

**Raton Aquatics Center**
Raton, New Mexico

MCA Project No.: RAT 051-12

**POOL SYSTEMS SCHEMATICS**

PROJECT ARCHITECT: John Quinn Pate, RA

Drawn by: EDW
Checked by: JDC

**SP5.0**

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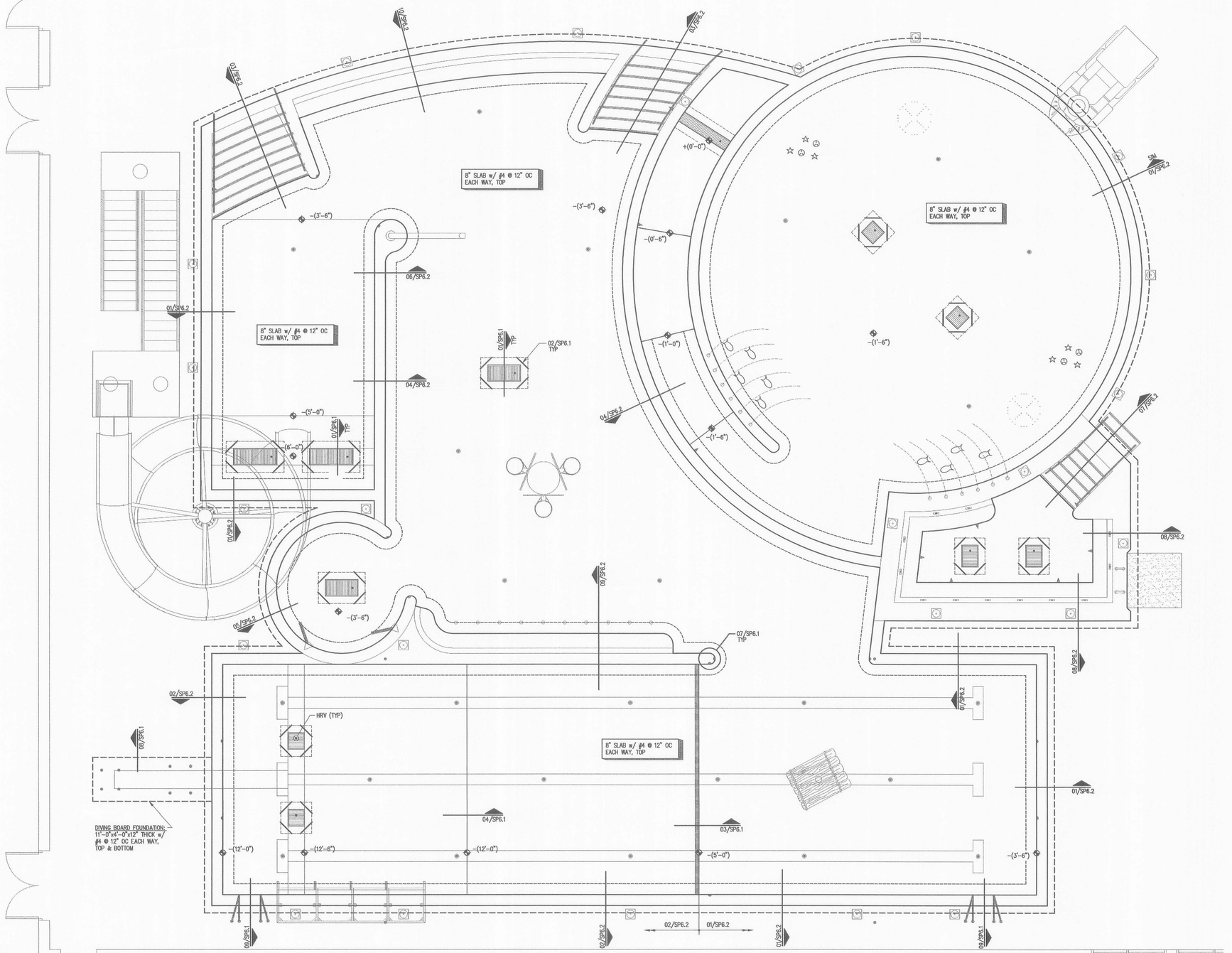


## POOL STRUCTURAL PLAN

SCALE: 1/4" = 1'-0"

### PLAN NOTES:

1. SEE SP6.1 FOR GENERAL NOTES, TYPICAL SECTIONS AND DETAILS.
2. PROVIDE GRANULAR, COMPACTED, FREE DRAINING FILL UNDER ALL POOL BOTTOM SLABS. SEE NOTE PC4 ON SHEET SP6.1.
3. PROVIDE 5'-0"x5'-0"x12" GRANULAR, COMPACTED, FREE DRAINING FILL UNDER EACH DRAIN. PROVIDE HYDROSTATIC RELIEF VALVE (HRV) AT EACH DRAIN.
4. PROVIDE ELECTRICAL GROUNDING FOR ALL REINFORCING AND EMBEDDED ITEMS, SEE ELECTRICAL DRAWINGS.
5. SEE SWIMMING POOL DRAWINGS FOR ALL DIMENSIONS NOT SHOWN.
6. WALLS ARE TYPICALLY SHOWN ON PLAN AT FOUNDATION LEVEL. SEE DETAILS & COORDINATE WITH SWIMMING POOL DRAWINGS FOR ALL WALL DETAIL ABOVE BASE SLAB.
7. ELEVATIONS ARE GIVEN RELATIVE TO POOL WATER SURFACE, UNO. COORDINATE WITH SWIMMING POOL DRAWINGS.
8. ALL ELEVATIONS ARE TO POOL FINISH.
9. REFER TO DETAIL 10/SP6.1 FOR ADDITIONAL SUBSURFACE DRAINAGE AND FILL REQUIREMENTS. REFERENCE PROJECT GEOTECHNICAL REPORT FOR ADDITIONAL CONSTRUCTION INFORMATION.

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C. RODNEY McCOMAS NEW MEXICO 12544 LICENSED PROFESSIONAL ENGINEER

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Raton Aquatics Center
Raton, New Mexico

MCA Project No.: RAT 051-12

POOL STRUCTURAL PLAN

PROJECT ARCHITECT: John Quinn Pate, RA

Drawn by: KLS
Checked by: TMM

SP6.0

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## ABBREVIATIONS LIST

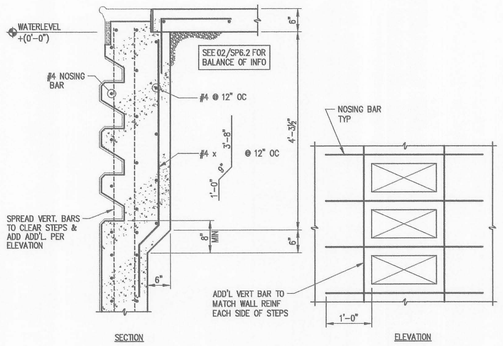
| | | | |
|---|---|---|---|
| AR | ANCHOR RODS | MBM | METAL BUILDING MFR |
| ABV | ABOVE | MCJ | MASONRY CONTROL JT |
| ACI | AMERICAN CONCRETE INSTITUTE | MECH | MECHANICAL |
| ADD'L | ADDITIONAL | MEZZ | MEZZANINE |
| ADH | ADHESIVE | MFR | MANUFACTURER |
| ADJ | ADJACENT | MIN | MINIMUM |
| AESS | ARCHITECTURALLY EXPOSED STRUCTURAL STEEL | MISC | MISCELLANEOUS |
| | | MO | MASONRY OPENING |
| AFF | ABOVE FINISHED FLOOR | MOM | MOMENT |
| AGGR | AGGREGATE | MSW | MASONRY SHEAR WALL |
| AHU | AIR HANDLING UNIT | MSL | MEAN SEA LEVEL |
| AISC | AMERICAN INSTITUTE OF STEEL CONSTRUCTION | MTL | METAL |
| | | MW | MASONRY WALL |
| AISI | AMERICAN IRON AND STEEL INSTITUTE | NIC | NOT IN CONTRACT |
| | | NO | NUMBER |
| ALUM | ALUMINUM | NS | NEAR SIDE |
| ALT | ALTERNATE | NTS | NOT TO SCALE |
| APA | AMERICAN PLYWOOD ASSOCIATION | O/O | OUT TO OUT |
| APPROX | APPROXIMATE | OA | OVERALL |
| ARCH | ARCHITECT | OC | ON CENTER |
| ARCH'L | ARCHITECTURAL | OD | OUTSIDE DIAMETER |
| ASTM | AMERICAN SOCIETY OF TESTING MATERIALS | OF | OUTSIDE FACE |
| | | OH | OVER HEAD |
| AWS | AMERICAN WELDING SOCIETY | OPNG | OPENING |
| L | ANGLE | OPP | OPPOSITE |
| BAL | BALANCE | OPP HD | OPPOSITE HAND |
| BB | BOND BEAM | OSB | ORIENTED STRAND BOARD |
| B/B | BACK TO BACK | OSL | OUTSTANDING LEG |
| BC | BOTTOM CHORD | OVS | OVERSIZE HOLE |
| BD | BOARD | PAF | POWDER ACTUATED FASTENER |
| BLDG | BUILDING | PC | PRECAST |
| BLK | BLOCK | PL | PLATE |
| BLW | BELOW | PLF | POUNDS PER LINEAR FOOT |
| BM | BEAM | PLYWD | PLYWOOD |
| BOTT | BOTTOM | PNL | PANEL |
| BP | BEARING PLATE | PROJ | PROJECTION |
| BRDG | BRIDGING | PSF | POUNDS PER SQUARE FOOT |
| BRG | BEARING | PSI | POUNDS PER SQUARE INCH |
| BRK | BRICK | PSL | PARALLEL STRAND LUMBER |
| BS | BOTH SIDES | PT | PRESSURE TREATED |
| BSMT | BASEMENT | PTN | PARTITION |
| BTWN | BETWEEN | PVMT | PAVEMENT |
| BUC | BUILT UP COLUMN | R | RADIUS |
| c | CAMBER | RD | ROOF DRAIN |
| C/C | CENTER TO CENTER | REF | REFERENCE |
| CANT | CANTILEVER | REINF | REINFORCE(D) (ING) (MENT) |
| CAIS | CAISSON | REQ'D | REQUIRED |
| CFS | COLD FORMED STEEL | REV | REVISION/REVISED |
| CJ | CONTROL AND OR CONSTRUCTION JOINT | RO | ROUGH OPENING |
| | | RRD | ROOF RELIEF DRAIN |
| CL | CENTERLINE | RTN | RETURN |
| CLR | CLEAR | RTU | ROOF TOP UNIT |
| CMU | CONCRETE MASONRY UNIT | RW | RETAINING WALL |
| COL | COLUMN | SCHED | SCHEDULE |
| COORD | COORDINATE | SECT | SECTION |
| COMP | COMPACTED | SHT | SHEET |
| CONC | CONCRETE | SIM | SIMILAR |
| CONN | CONNECTION | SJ | SAWCUT JOINT |
| CONST | CONSTRUCTION | SJI | STEEL JOIST INSTITUTE |
| CONT | CONTINUOUS | SL | SLOPED |
| CONTR | CONTRACTOR | SPA | SPACE(S) |
| CTR | CENTER | SPECS | SPECIFICATIONS |
| CTR'D | CENTERED | SQ | SQUARE |
| DIA | DIAMETER | SS | STAINLESS STEEL |
| DIAG | DIAGONAL | SSL | SHORT SLOTTED HOLES |
| DIM | DIMENSION | STD | STANDARD |
| DL | DEAD LOAD | STIFF | STIFFENERS |
| DLT | DEEP LEG TRACK | STL | STEEL |
| DO | DITTO | STRUCT | STRUCTURAL |
| DN | DOWN | SW | SHEAR WALL |
| DTL | DETAIL | SYMM | SYMMETRICAL |
| DWG | DRAWING | T&B | TOP AND BOTTOM |
| DWL | DOWEL | T&G | TONGUE AND GROOVE |
| EA | EACH | TB | TIE BEAM |
| EE | EACH END | TC | TOP CHORD |
| EF | EACH FACE | TEMP | TEMPERATURE |
| EJ | EXPANSION JOINT | TF | TRENCH FOOTING |
| ENG | ENGINEER | THK | THICK |
| ELEV | ELEVATION | THKS | THICKENED SLAB |
| ELECT | ELECTRICAL | THR'D | THREADED |
| EOD | EDGE OF DECK | TL | TOTAL LOAD |
| EOS | EDGE OF SLAB | TOP'G | TOPPING |
| EQ | EQUAL | TRANS | TRANSVERSE |
| EQUIV | EQUIVALENT | TYP | TYPICAL |
| ES | EACH SIDE | UNO | UNLESS NOTED OTHERWISE |
| EW | EACH WAY | VERT | VERTICAL |
| EXIST-EX | EXISTING | VIF | VERIFY IN FIELD |
| EXP | EXPANSION | w/ | WITH |
| EXT | EXTERIOR | WD | WOOD |
| F/ | FACE OF | WO | WINDOW OPENING (MASONRY) |
| FD | FLOOR DRAIN | WP | WORKING POINT |
| FDN | FOUNDATION | WT | WEIGHT |
| FIN | FINISH | WWF | WELDED WIRE FABRIC |
| FLR | FLOOR | | |
| FLG | FLANGE | | |
| FS | FARSIDE | | |
| FTG | FOOTING | | |
| GA | GAUGE | | |
| GALV | GALVANIZED | | |
| GB | GRADE BEAM | | |
| GC | GENERAL CONTRACTOR | | |
| GL | GLULAM | | |
| GR | GRADE | | |
| HC | HOLLOW CORE | | |
| HD | HOLD DOWN | | |
| HGT | HEIGHT | | |
| HI | HIGH | | |
| HK | HOOK | | |
| HORIZ | HORIZONTAL | | |
| HP | HIGH POINT | | |
| HS | HEADED STUD | | |
| HSS | HOLLOW STRUCTURAL SECTION | | |
| ID | INSIDE DIAMETER | | |
| IF | INSIDE FACE | | |
| INFO | INFORMATION | | |
| INT | INTERIOR | | |
| INV | INVERT | | |
| JST | JOIST | | |
| JT | JOINT | | |
| K | KIP | | |
| KO | KNOCK OUT | | |
| LB | POUND | | |
| LDG | LEDGE | | |
| LG | LONG | | |
| LL | LIVE LOAD | | |
| LLH | LONG LEG HORIZONTAL | | |
| LLV | LONG LEG VERTICAL | | |
| LNTL | LINTEL | | |
| LSL | LONG SLOTTED HOLES | | |
| LONG | LONGITUDINAL | | |
| LP | LOW POINT | | |
| LVL | LAMINATED VENEER LUMBER | | |
| MAS | MASONRY | | |
| MAT'L | MATERIAL | | |
| MAX | MAXIMUM | | |

### ELEVATION TOP AND BOTTOM OF LIST

| | |
|---|---|
| T/ | ELEVATION, TOP OF |
| B/ | ELEVATION, BOTTOM OF |
| T/BB | TOP OF BOND BEAM |
| T/BM | TOP OF BEAM |
| T/CONC | TOP OF CONCRETE |
| T/F | TOP OF FOOTING |
| T/LDG | TOP OF LEDGE |
| T/MAS | TOP OF MASONRY |
| T/P | TOP OF PIER |
| T/SLAB | TOP OF SLAB |
| T/STL | TOP OF STEEL |
| T/W | TOP OF WALL |
| T/GB | TOP OF GRADE BEAM |
| T/CAIS | TOP OF CAISSON |
| B/PL | BOTTOM OF PLATE |
| B/F | BOTTOM OF FOOTING |

### SYMBOLS

| | |
|---|---|
| ø | DIAMETER |
| ° | DEGREE |
| ⌖ | ELEVATION |
| ± | PLUS OR MINUS |



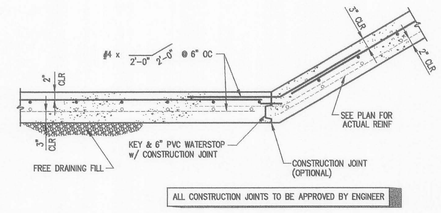

SEE POOL DRAWINGS FOR OTHER DIMENSIONS

## TYPICAL RECESSED STEPS DETAIL

09 SP6.1

SCALE: NOT TO SCALE

DET#007_25194



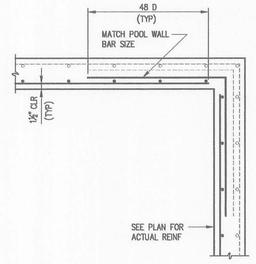

ALL CONSTRUCTION JOINTS TO BE APPROVED BY ENGINEER

## TYPICAL BOTTOM SLAB TRANSITION DETAIL

04 SP6.1

SCALE: ¾" = 1'-0"

DET#004_27089

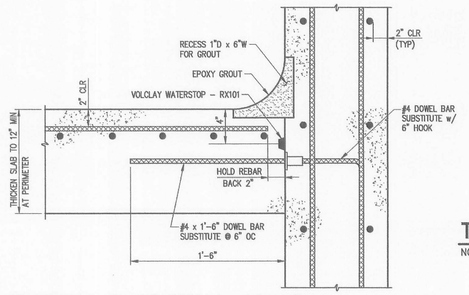



## TYPICAL POOL WALL CORNER DETAIL

05 SP6.1

SCALE: ¾" = 1'-0"

DET#005_27089

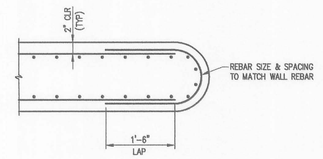



## TYPICAL SLAB/WALL JOINT

06 SP6.1

SCALE: 1½" = 1'-0"

DET#006_27089




## TYPICAL WALL TERMINATION

07 SP6.1

SCALE: ¾" = 1'-0"

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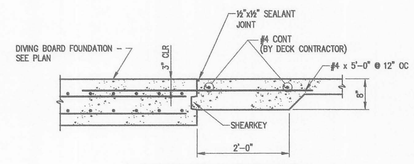


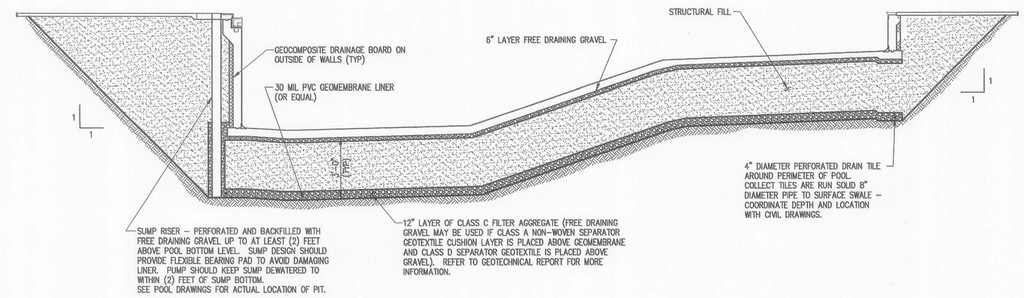

SEE POOL DRAWINGS FOR OTHER DIMENSIONS

## SECTION

08 SP6.1

SCALE: ¾" = 1'-0"

DET#008_27089

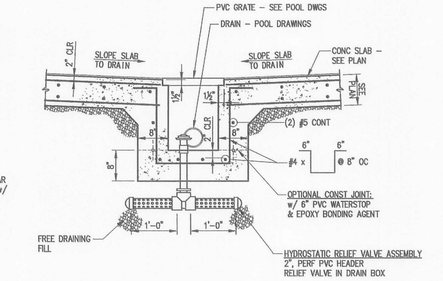



## POOL UNDERDRAIN SYSTEM

10 SP6.1

SCALE: NOT TO SCALE

POOL UNDERGROUND SYSTEM_25091

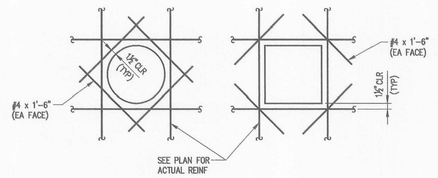



## TYPICAL DRAIN BOX DETAIL

01 SP6.1

NOT TO SCALE

DET#001_27089

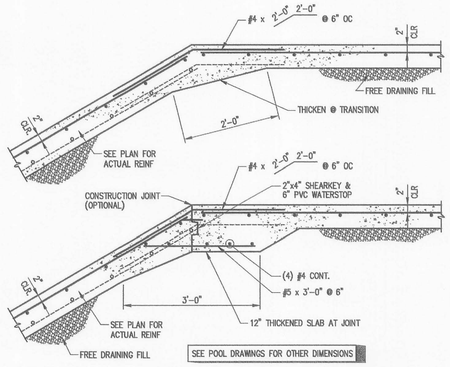



## TYPICAL REINF @ EMBEDDED ITEMS

02 SP6.1

SCALE: NOT TO SCALE

DET#002_27089




SEE POOL DRAWINGS FOR OTHER DIMENSIONS

## TYPICAL BOTTOM SLAB TRANSITION DETAIL

03 SP6.1

SCALE: ¾" = 1'-0"

DET#003_27089

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### GENERAL NOTES

PG1. Building Codes:
Model: International Building Code 2000.
Concrete: American Concrete Institute ACI 318-99, American Concrete Institute ACI 350-01.
PG2. See geotechnical report for soil and groundwater conditions.
PG3. HRV = Hydrostatic relief valves.
PG4. All Slabs shall be placed on compacted, free-draining, frost-free drainage course.
Drainage Course: Narrowly graded mixture of washed crushed stone, or crushed or uncrushed gravel; ASTM D 448; coarse-aggregate grading Size 57; with 100 percent passing a 1-1/2-inch sieve and 0 to 5 percent passing a No. 8 sieve. All fill shall be compacted to a minimum dry density of 95% of the Modified Proctorm maximum dry density ASTM-D1557), placed in 6" to 8" lifts. See soils investigation report for further recommendations.

Drainage Course Thickness: 12" For water depths of 0'-0" to 3'-0"
12" For water depths greater than 3'-0"
12" For Surge Tank

PG5. The pool structure has been designed to withstand all anticipated loadings under both full and empty conditions.
PG6. The construction documents indicate design of a finished product based on cast-in-place concrete methods. If alternate means and methods are employed that may alter the completed project, the contractor must submit proposed revisions to the Architect/Engineer for approval prior to fabrication or construction.

### REINFORCED CONCRETE AND SHOTCRETE (GUNITE) NOTES

PC1. Pool walls may be placed using cast in place concrete or pneumatically placed concrete (shotcrete). Pool bottom slab shall be cast in place concrete.
PC2. All concrete shall be 4000 psi minimum 28 day compressive strength with 6% air entrainment.
PC3. All reinforcing steel shall be detailed, supplied and placed in accordance with ACI 318-99, ACI 315-99, and CRSI MSP-1-01.
PC4. All shotcrete materials, proportioning and application shall be in accordance with ACI 506R-90 and ACI 506.2-95. Nozzleman shall be certified per ACI 506.3R-91.
PC5. All reinforcing steel shall be shop fabricated to conform to ASTM A615, Grade 60.
PC6. Earth forms may be used. Dampen surfaces to receive shotcrete.
PC7. Use wet-mix process for shotcrete, if used.
PC8. All pool concrete shall be "wet" cured using hoses and polyethylene covering.
PC9. Reinforcing clearance: 2" Pool Walls, Surge Tank Walls
2" Pool Bottom Slabs, Surge Tank Slabs

PC10. Fully encase all underslab piping in concrete.


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NOTICE OF EXTENDED PAYMENT PROVISION: THIS CONTRACT ALLOWS THE OWNER TO MAKE PAYMENT WITHIN 45 DAYS AFTER SUBMISSION OF AN UNDISPUTED REQUEST FOR PAYMENT


C. RODNEY McCOMAS NEW MEXICO 12544 REGISTERED PROFESSIONAL ENGINEER

| Issues/Revisions: | Date: |
|---|---|
| Bid Document | 6-24-01 |

Raton Aquatics Center
Raton, New Mexico

MCA Project No.: RAT 051-12

GENERAL NOTES AND DETAILS

PROJECT ARCHITECT: John Quinn Pate, RA

Drawn by: KLS
Checked by: TMM

SP6.1


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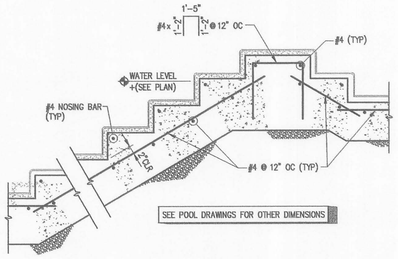


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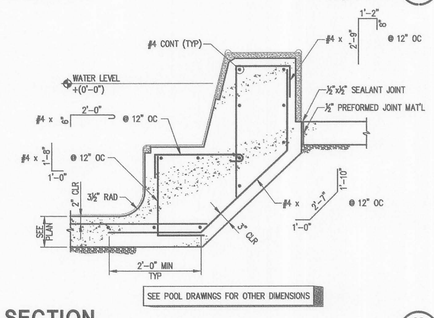


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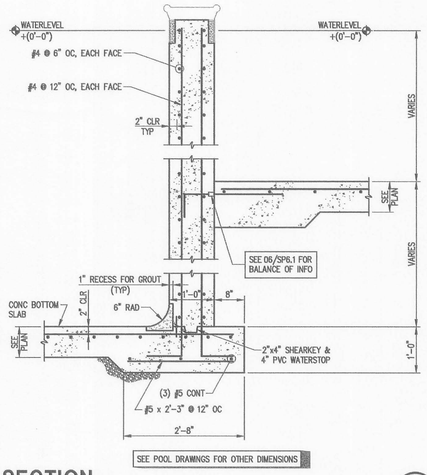


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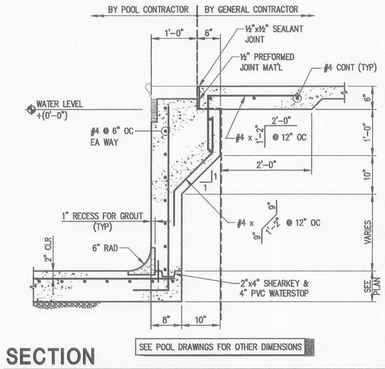


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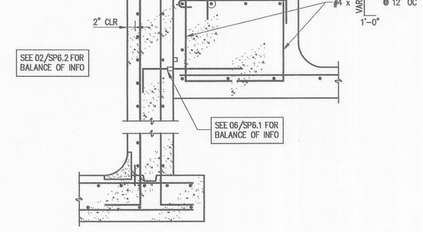


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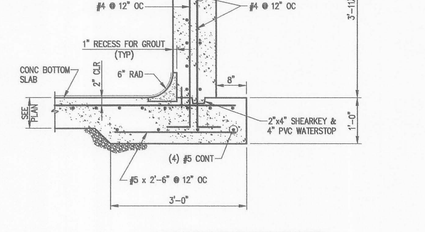


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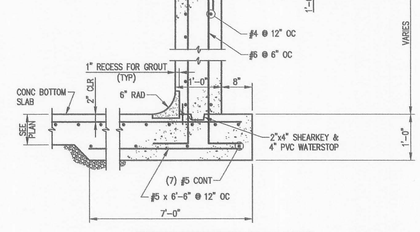


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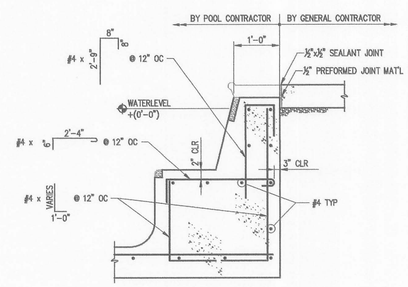


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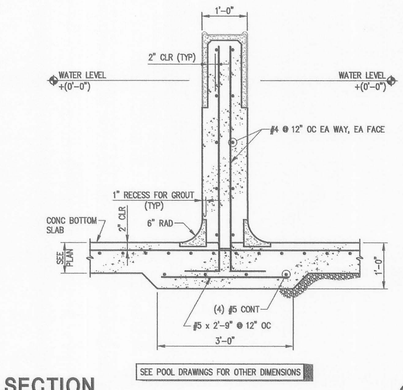


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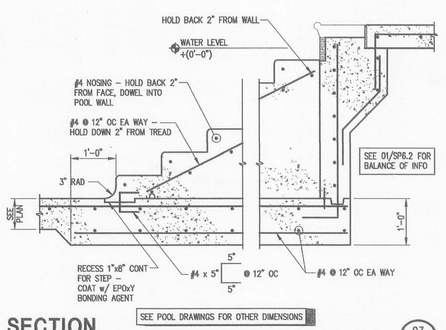


## SECTION 03
SCALE: 3/4" = 1'-0" DET#012_27089 SP6.2

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Raton Aquatics Center
Raton, New Mexico

MCA Project No.: RAT 051-12

SECTIONS AND DETAILS

PROJECT ARCHITECT: John Quinn Pate, RA

Drawn by: KLS
Checked by: TMM

SP6.2

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