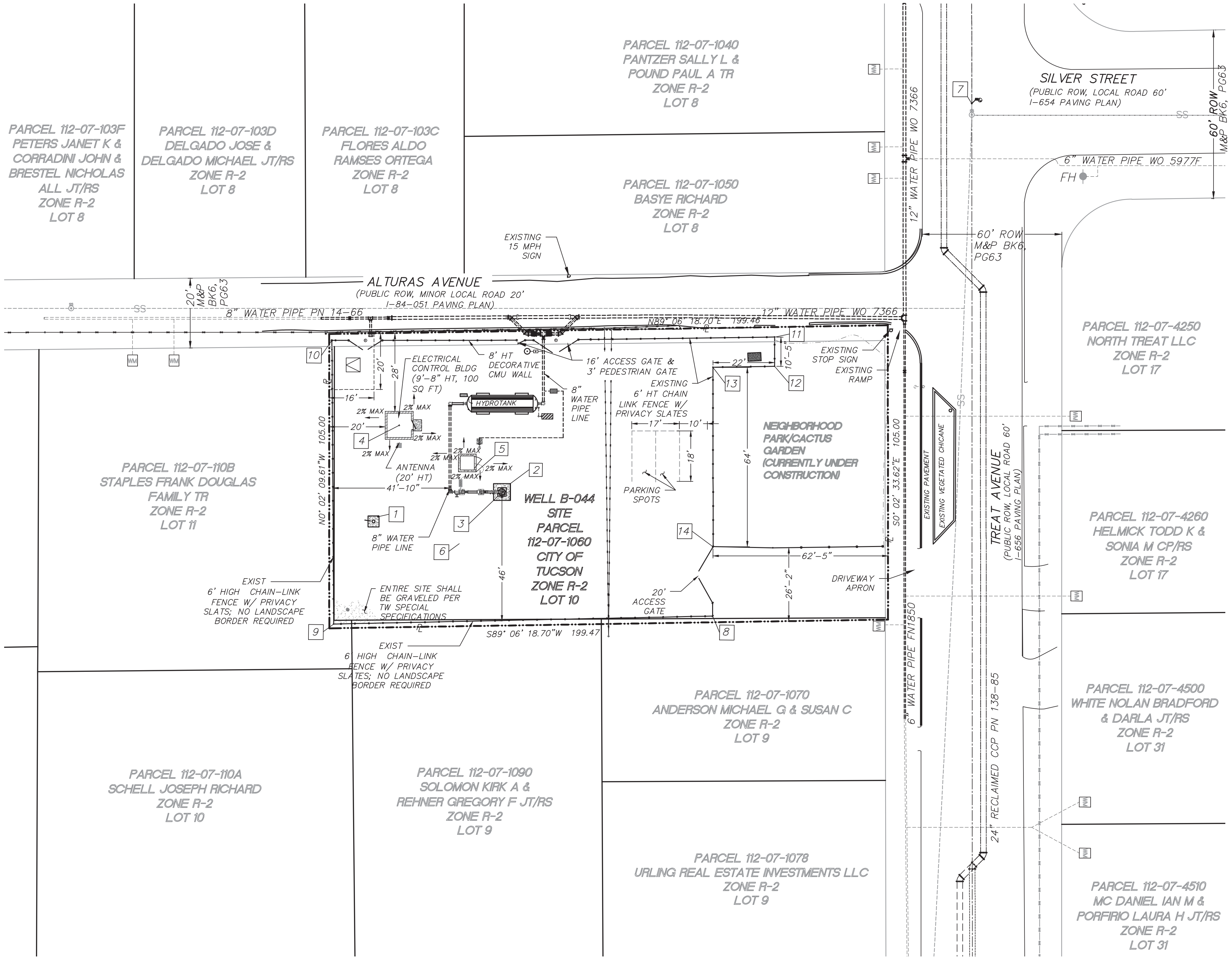
DEVELOPMENT SITE PLAN

Scale: 1" = 20'



ZONING AND LAND USE NOTES

EXISTING ZONING IS R-2
PROPOSED ZONING IS R-2, SPECIAL EXCEPTION

GROSS AREA OF SITE IS:
19,330 SQ. FT.
0.44 ACRE

BUILDING AREA:
100 SQ. FT.
0.52% OF LOT AREA

MAXIMUM BUILDING HEIGHT: 20'

LOT AREA EXPANSION: 562 SQ FT
2.9% OF LOT AREA

VEHICULAR USE AREA

UTILITIES USE GROUP

PARKING CALCULATIONS

REQUIRED PARKING: 1 PER 500 SQ FT GFA, MINIMUM 2 SPACES
PROVIDED PARKING: 2

DRAINAGE NOTES

THE DEVELOPER, ANY SUCCESSORS AND ASSIGNS, WILL HOLD THE CITY OF TUCSON, ITS OFFICERS, EMPLOYEES AND AGENTS HARMLESS FROM ANY AND ALL CLAIMS FOR DAMAGES RELATED TO THE USE OF THIS DEVELOPMENT AS SHOWN HEREON, NOW AND IN THE FUTURE, BY REASON OF FLOODING, FLOWAGE, EROSION OR DAMAGE CAUSED BY WATER, WEATHER SURFACE FLOOD OR RAINFALL.

DRAINAGE WILL REMAIN IN ITS NATURAL STATE AND WILL NOT BE ALTERED, DISTURBED, OR OBSTRUCTED OTHER THAN SHOWN ON THIS PLAN.

STREET AND ROAD NOTES

NO STRUCTURE OR VEGETATION SHALL BE LOCATED OR MAINTAINED SO AS TO INTERFERE WITH SIGHT VISIBILITY TRIANGLES IN ACCORDANCE WITH SECTION 10-01.5.0, SIGHT VISIBILITY, OF THE TECHNICAL STANDARDS MANUAL.

UTILITIES NOTES

ANY RELOCATION OR MODIFICATION OF EXISTING UTILITIES AND/OR PUBLIC IMPROVEMENTS NECESSITATED BY THE PROPOSED DEVELOPMENT WILL BE AT NOT EXPENSE TO THE PUBLIC.

TRAIL NOTES

THE EASTERN PIMA COUNTY TRAILS SYSTEM MASTER PLAN DOES NOT SHOWN ANY TRAILS ON OR ADJACENT TO THE DEVELOPMENT SITE.

BASIS OF ELEVATION

BASIS OF ELEVATION IS A 2" BRASS DISC PT 1 (GEODETIC CONTROL POINT #50460) ELEVATION = 2423.948 FEET NAVD 88.

BASIS OF BEARING

BASIS OF COORDINATE POINT #50460; N=457060.728, E=1004466.040 ARIZONA STATE PLANE CENTRAL ZONE COORDINATES.

GENERAL NOTES

1. R-2 (URBAN RESIDENTIAL ZONE), EXISTING ZONE PURPOSE 4.7.9, SITE USE OF SPACE IS DISTRIBUTION SYSTEM, UTILITIES USE GROUP PER TUCSON UDC SECTION 4.8-2. THE PROPOSED USE IS DISTRIBUTION SYSTEM, UTILITIES USE GROUP, SUBJECT TO USE SPECIFIC STANDARDS: 4.9.11.A.1, .2, .5, .8, .9, .11. REQUIRES SPECIAL EXCEPTION PROCEDURE, SECTION 3.4.3.
2. APPROVAL FROM TDOT PERMITS AND CODES OF ALL IMPROVEMENTS WITHIN THE PUBLIC RIGHT-OF-WAY WILL BE REQUIRED. A RIGHT OF WAY PERMIT APPLICATION WILL BE REQUIRED PRIOR TO CONSTRUCTION.

GRADING NOTES

1. THIS PROJECT WILL CONFROM TO CITY OF TUCSON UNIFIED DEVELOPMNET CODE SECTION 2-0, EXCAVATING AND GRADING REQUIREMENTS.
2. ALL PROPOSED FENCING AND WALLS WILL REQUIRE A SEPARATE PERMIT FOR REVIEW AND APPROVAL BY ALL NECESSARY PLANNING DEVELPMENT SERVICES DEPARTMENTS.
3. PER TUCSON TECHNICAL STANDARDS MANUAL SECTION 10.4 BUILDING PADS SHALL HAVE A 2% SLOPE. SLOPE WILL CONTINUE 5-FT FROM PAD AND DRAIN TO NATURAL STATE.

RESERVED FOR CITY OF TUCSON PLANNING & DEVELOPMENT SERVICES

WELL SITE LEGAL DESCRIPTION:

GRANT ROAD PARK N105' OF LOT 9 & N105' OF LOT 10 BLOCK 3

WELL SITE ADDRESS:

2525 N. TREAT AVENUE,
TUCSON, AZ 85716

STRUCTURE COORDINATE CONTROL DATA

NO.	NORTHING	EASTING	ELEV	DESCRIPITON
1	457060.73	1004466.04	2423.95	2' BRASS MONUMENT #50460
2	457072.48	1004513.18	2423.00	TOP OF 6'X6' WELL PAD NE CORNER
3	457067.98	1004508.68	2424.00	TOP OF 3'X3' WELL PAD SW CORNER
4	457093.27	1004473.48	2423.78	10'X10' (100 SQ FT, 10' HIGH) ELECTRICAL CONTROL BUILDING
5	457076.70	1004500.98	2423.16	ACCESSORY USE STRUCTURE-5'X5' (25 SQ FT, 7' HIGH) PRE-MANUFACTURED DISINFECTION SYSTEM, PAD TOP SE CORNER
6	457051.04	1004494.89	2422.27	60D/SET @ B-44
7	457208.08	1004677.88	2415.80	BSM/RLS COT 5N

COORDINATE CONTROL DATA

NO.	NORTHING	EASTING	ELEV	DESCRIPITON
8	457025.22	1004585.38	2422.24	FENCE/GATE POST SE
9	457022.35	1004450.10	2423.43	FENCE SW CORNER
10	457123.57	1004449.45	2421.73	FENCE NW CORNER
11	457124.76	1004607.48	2421.03	FENCE POST AT NE CORNER
12	457114.33	1004607.48	2421.14	FENCE POST EAST SIDE (SOUTH OF POINT 11)
13	457113.98	1004585.48	2421.20	FENCE POST EAST SIDE (WEST OF POINT 12)
14	457049.99	1004585.53	2421.86	FENCE/GATE POST EAST SIDE (SOUTH OF POINT 13; NORTH OF POINT 8)

SPECIAL EXCEPTION
Preliminary Development Plan
SE- 20-14 Date 12/11/20
Planning & Development Services

Contact Arizona 811 at least two full working days before you begin excavation. Call 811 or click Arizona811.com

5% PRELIMINARY DRAWINGS

TUCSON WATER — A proud part of the City of Tucson

NO.	BY	DATE	REVISION	APPR.	DATE

EQUIP WELL B-044C DEVELOPMENT PLAN

DEVELOPMENT SITE PLAN

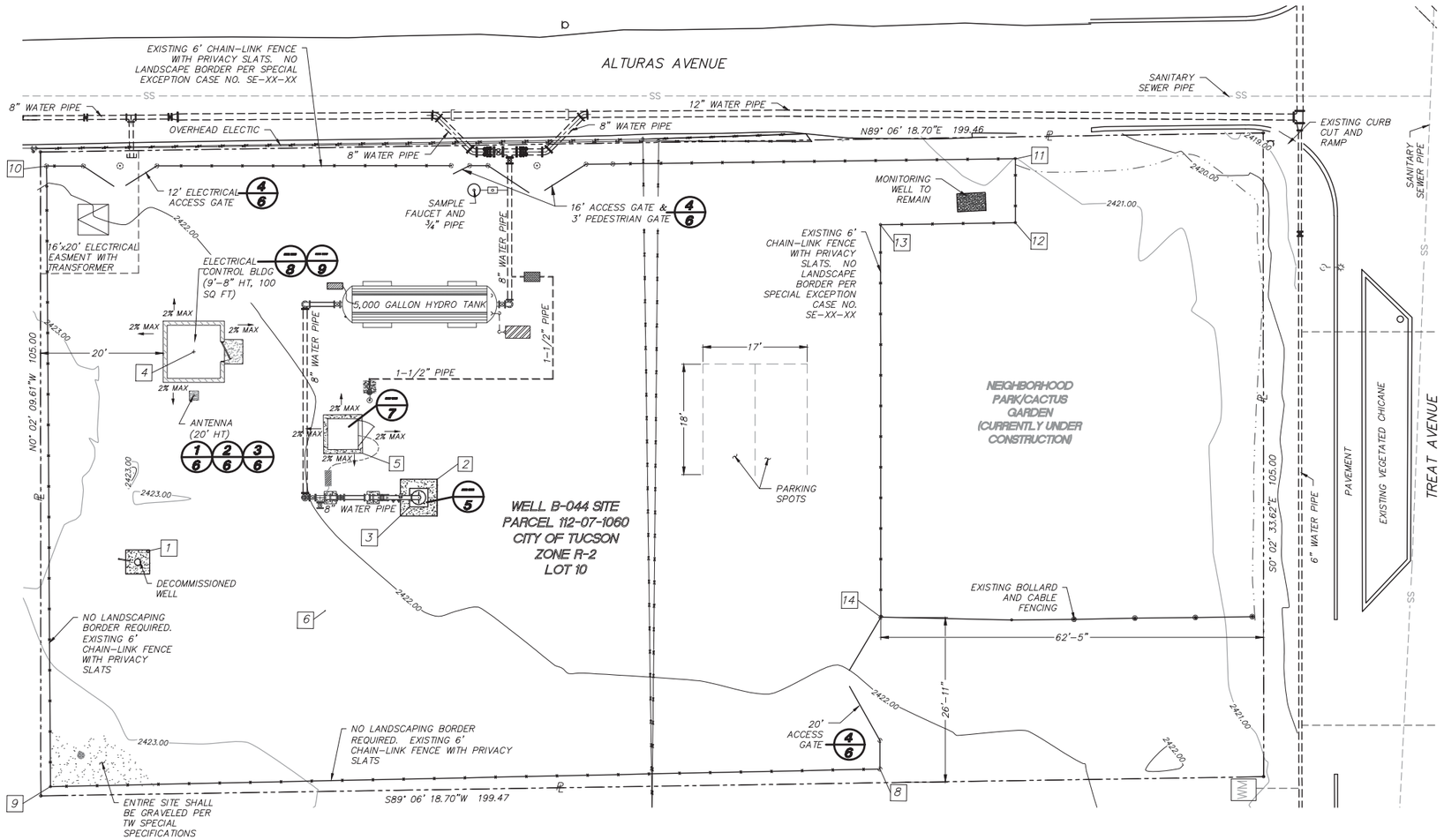
DP-3

DESIGNED BY: D. DOLAN	DATE: 10/20	CAD FILE REF. 0742019-3	SHEET 3 OF 12
DRAWN BY: L. SPITZER	DATE: 10/20	SCALE: AS NOTED	PLAN NO. 9-074-2019
CHECKED BY: M. SANDERS	DATE: 10/20		

EXISTING SITE SURFACE PLAN

Scale: 1" = 10'

10 0 10 20



RESERVED FOR CITY OF TUCSON PLANNING & DEVELOPMENT SERVICES

WELL SITE LEGAL DESCRIPTION:

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Contact Arizona 811 at least two full working days before you begin excavation
ARIZONA811 BLUE STAKE, INC.
Call 811 or click Arizona811.com

NO.	BY	DATE	REVISION	APPR.	DATE

95% PRELIMINARY DRAWINGS
Registered Professional Engineer
CERTIFICATE
DOROTHY CHAVEZ-DOLAN
ARIZONA U.S.A.

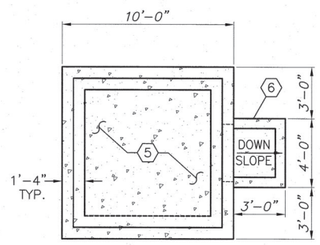
TUCSON WATER
A proud part of the City of Tucson

EQUIP WELL B-044C DEVELOPMENT PLAN

EXISTING SITE SURFACE PLAN

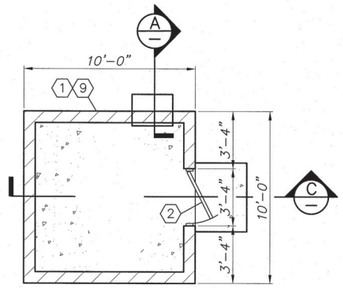
DP-4

DESIGNED BY: D. DOLAN	DATE: 10/20	CAD FILE REF.: 0742019-4	SHEET 4 OF 12
DRAWN BY: L. SPITZER	DATE: 10/20	SCALE: AS NOTED	
CHECKED BY: M. SANDERS	DATE: 10/20		PLAN NO.: 9-074-2019



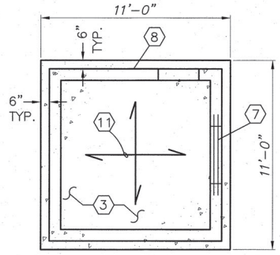
FOUNDATION PLAN

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



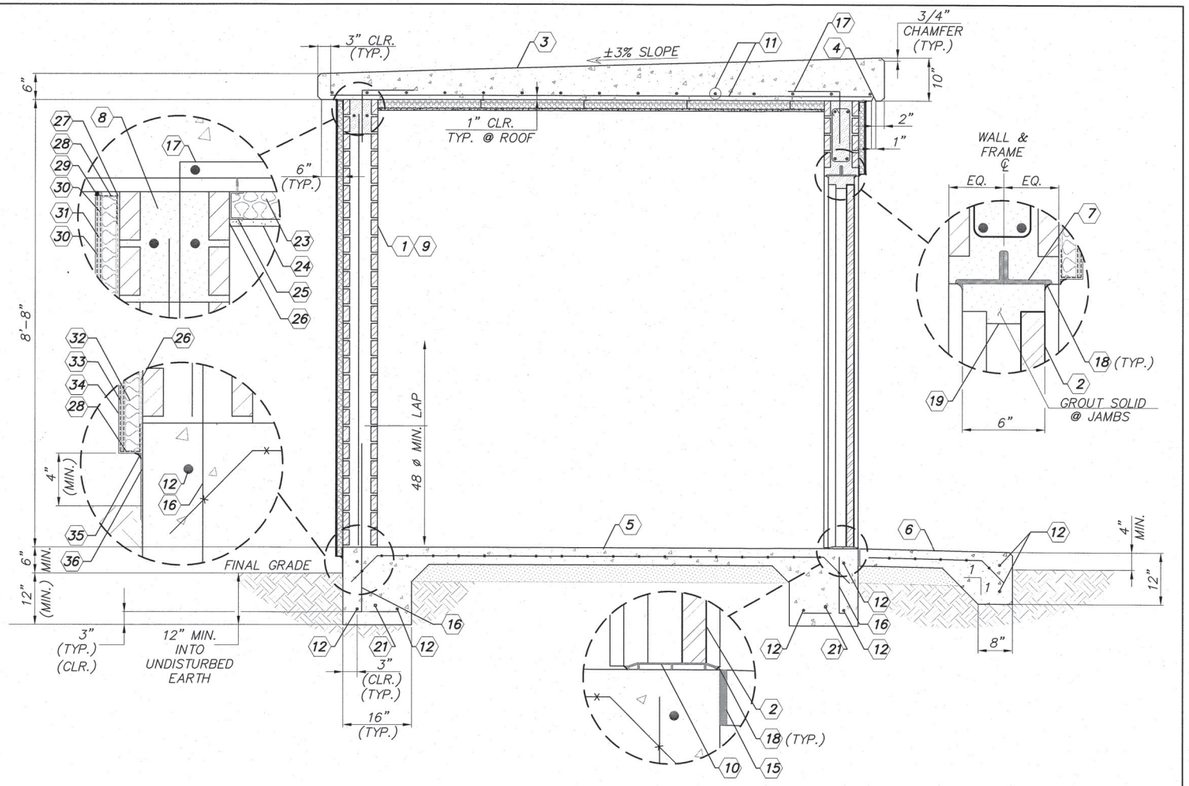
FLOOR PLAN

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



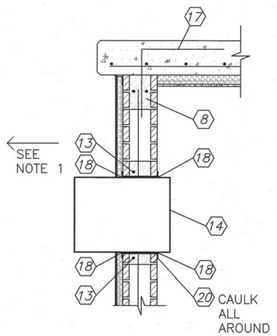
ROOF PLAN

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



C BUILDING SECTION

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

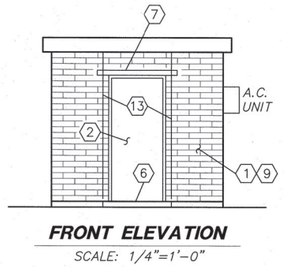


NOTES:

1. SLOPE A.C. UNIT 1/4" PER 12" AWAY FROM BUILDING. PROVIDE DRAIN HOLE AT LOW END WITH DRIP HOSE TO GRADE.

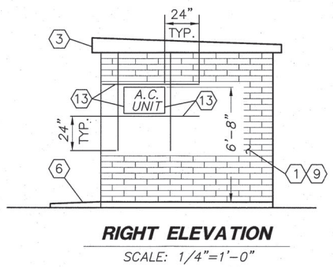
A WALL SECTION @ A.C. UNIT

3/4"=1'-0"



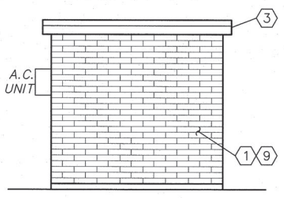
FRONT ELEVATION

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



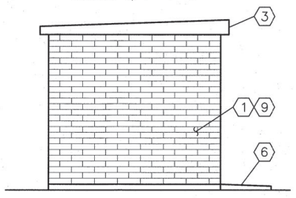
RIGHT ELEVATION

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



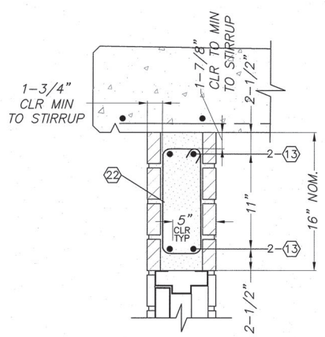
REAR ELEVATION

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



LEFT ELEVATION

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



B ALTERNATE CMU LINTEL

1 1/2"=1'-0"

KEY NOTES:

1. 8" x 8" x 16" GREY CMU BLOCK (8" X 4" X 16" BUFF COLORED CMU SLUMP BLOCK)
2. 3'-0" X 7'-2" X 1-3/4" HOLLOW METAL DOOR AND FRAMES. COLOR: MATCH NEW EXTERIOR STUCCO WALLS.
3. CONCRETE ROOF DECK WITH "THOROSEAL" WATERPROOF COATING TO MATCH COLOR OF STUCCO WALL. SEE SPECIFICATIONS.
4. DRIP – 1" WIDE X 1" DEEP GROOVE (TYP. ALL ROOF EDGES)
5. 4" CONCRETE SLAB WITH 6 X 6 – W2.0 X W2.0 W.W.F.ON 4" THICK AGGREGATE BASE COURSE, COMPACTED TO 95% DENSITY.
6. 4" CONCRETE PAD– 1/4" PER FOOT SLOPE W/LIGHT BROOM FINISH WITH 6 X 6 – W2.0 X W2.0 W.W.F. ON 4" COMPACTED SAND BASE COURSE.
7. 3-1/2" X 3-1/2" X 5/16" (A36) DOUBLE STL LINTEL. LINTEL TO BE CAST A MINIMUM OF 4" INTO 8x8 BOND BEAM. ALTERNATE CMU LINTEL — B
8. 8 x 8 BOND BEAM W/2–#4 CONTINUOUS. (CMU CONSTRUCTION)
9. 8" CMU WALL W/#4 VERTICAL BARS @ 48"O.C., CORNERS & OPENINGS AND TRUSS–TYPE HORIZONTAL REINFORCING @ 16"O.C. GROUT SOLID ALL CELLS WITH REINFORCING STEEL.
10. ALUMINUM THRESHOLD. SEE SPECIFICATIONS.
11. #4 @ 9"O.C. EACH WAY .
12. 2–#4 BARS CONTINUOUS (BOTTOM), 1–#4 BAR CONTINUOUS (TOP).
13. #4 BAR, GROUTED SOLID @ TOP, BOTTOM & SIDES OF ALL WALL OPENINGS (EXCEPT @ TOP OF DOOR OPENING WHEN STL LINTEL IS PROVIDED). BAR SHALL EXTEND 16" OR 24" BEYOND OPENING AS SHOWN IN RIGHT ELEVATION.
14. A.C. UNIT
15. 1/2" PREMOLD JOINT. TRIM FLUSH AND CAULK.
16. #4 DOWEL @ 48" O.C., ALTERNATING DIRECTION W/ STD. 90° HOOK IN FOOTING.

KEY NOTES:

17. #4 DOWEL @ 24"O.C. 12" 12"
18. CAULKING
19. H.M. FRAME W/(3) ANCHORS PER JAMB.
20. 24 GA. GALVANIZED METAL FLASHING. SOLDER JOINTS WATERTIGHT. PAINT TO MATCH WALL COLOR.
21. BUILDING GROUND WIRE PER ELECTRICAL PLAN & SPECS. 4–1/8"
22. #3 STIRRUPS– GROUTED SOLID. PLACE 1ST STIRRUP 2" FROM EACH END & 6" O.C. THEREAFTER. 12–1/4" O.T.O.
23. 2" POLYISO RIGID INSULATION.
24. R=16
25. 2" METAL FURRING STRIPS @ 24" O.C. MECHANICALLY FASTEN TO CONCRETE.
26. 1/2" EXTERIOR GWB. TAPE AND PAINT.
27. DRYVIT OR EQUAL ADHESIVE.
28. DRYVIT OR EQUAL DETAIL MESH WRAPPED TO BACKSIDE OF EPS MIN. 2".
29. TERMINATE 3/8" BELOW ROOF – BACKER ROD AND SEALANT.
30. DRYVIT OR EQUAL BASE COAT.
31. DRYVIT OR EQUAL REINFORCING MESH EMBEDDED IN DRYVIT OR EQUAL BASE COAT.
32. 1–1/2" EPS INSULATION.
33. R=6.3
34. DRYVIT OR EQUAL FINISH.
35. DRYVIT OR EQUAL COMBATABLE SEALANT W/ BOND BREAKER, BY OTHERS.
36. DRYVIT DRYFLEX OR EQUAL WATER RESISTANT BASE COAT.

MECHANICAL NOTES:

1. AIR CONDITIONER IS INTENDED TO REMOVE HEAT PRODUCED BY PROCESSING EQUIPMENT. AIR CONDITIONER IS NOT INTENDED TO PROVIDE HUMAN COMFORT. (SEE SPECIFICATIONS)
2. GROUT ALL EXPOSED CELLS ADJACENT TO A.C. UNIT, FANS AND GRILLES.
3. REFER TO MANUFACTURER'S INSTALLATION INSTRUCTIONS FOR ADDITIONAL INFORMATION.

ELECTRICAL NOTES:

1. SEE SHEETS 14 & 15 FOR ELECTRICAL EQUIPMENT BUILDING INTERIOR & EXTERIOR LAYOUT, CONDUIT AND WIRING RUNS.

NOTE:

THE CONTRACTOR SHALL GROUT SOLID ALL CMU CELLS AS NECESSARY TO PROVIDE PROPER SUPPORT FOR MOUNTING OF ALL ELECTRICAL PANELS, CABINETS AND EQUIPMENT AS SHOWN ON THESE PLANS.

SUB-GRADE MATERIAL	FOOTING WIDTH "B"	FOOTING DEPTH "D"
ROCK–MATERIAL CLASSES 1 & 2 FROM IBC TABLE 1806.2	12" *	12" *
SOIL–MATERIAL CLASSES 3–5 FROM IBC TABLE 1806.2	16" *	18" *

* THE USE OF THESE DIMENSIONS REQUIRES WRITTEN APPROVAL FROM THE STRUCTURAL ENGINEER OF RECORD

NO.	BY	DATE	REVISION	APPR.	DATE

FOR ENGINEERING AS–BUILT RECORD DRAWING STAMP

Registered Professional Engineer (Civil) CERTIFICATE 23636 DOROTHY CHAVEZ–DOLAN date signed: 8-05-20 ARIZONA U.S.A.

Dorothy C. Dolan

TUCSON WATER

A proud part of the City of Tucson

CITY OF TUCSON

EQUIP WELL B-044C

CONTROL BUILDING PLAN & DETAILS

DESIGNED BY: D. DOLAN	DATE: 09/19	CAD FILE REF. 0742019–12	SHEET 12 OF 24
DRAWN BY: J. LIZARDI/L.S.	DATE: 09/19	SCALE: AS NOTED	
CHECKED BY: M. SANDERS	DATE: 09/19		PLAN NO. 9–074–2019

GENERAL STRUCTURAL NOTES

GENERAL

1. ALL WORK SHALL CONFORM TO THE REQUIREMENTS OF THE INTERNATIONAL BUILDING CODE (IBC), 2018 EDITION, WITH CITY OF TUCSON / PIMA COUNTY MODIFICATIONS.

2. DESIGN LOADS

   LIVE LOADS:
   FLAT ROOF — 20 PSF (REDUCIBLE)

   DEAD LOADS:
   FLAT ROOF — 113 PSF FOR 15'-4"x15'-4" BLDG
   WIND LOAD: — 100 PSF FOR 10'-0"x10'-0" BLDG
   IBC 2018/ASCE 7-16
   SIMPLIFIED METHOD PER ASCE 7, CHAP. 28, PART 2
   ULTIMATE DESIGN WIND SPEED = 96 MPH
   EXPOSURE C

   SEISMIC LOAD:
   IBC 2018/ASCE 7-16
   RISK CATEGORY 1
   IMPORTANCE FACTOR: $I_E = 1.0$
   SITE CLASS D
   $S_{DS}=0.310$
   $S_{D1}=0.132$
   SEISMIC DESIGN CATEGORY B
   $R = 3.5$
   $C_S=S_{DS}/(R/I_E) = 0.0886$
   $V=C_SW = 0.0886W$

3. CONTRACTOR SHALL VERIFY ALL DIMENSIONS AND CONDITIONS AT THE JOB SITE PRIOR TO BEGINNING WORK AND SHALL REPORT ANY DISCREPANCIES TO THE ENGINEER.

4. REFER TO SITE PLAN AND ARCHITECTURAL DRAWINGS FOR LOCATION AND DETAILS OF SITE WORK ITEMS NOT SHOWN ON STRUCTURAL DRAWINGS.

5. OMISSIONS OR CONFLICTS BETWEEN VARIOUS ELEMENTS OF THE DRAWINGS, NOTES, AND DETAILS SHALL BE BROUGHT TO THE ATTENTION OF THE ENGINEER AND RESOLVED BEFORE PROCEEDING WITH THE WORK.

6. DO NOT USE SCALED DIMENSIONS. USE WRITTEN DIMENSIONS OR WHERE NO DIMENSION IS PROVIDED, CONSULT THE ENGINEER BEFORE PROCEEDING WITH THE WORK.

7. ESTABLISH AND VERIFY THE SIZE AND LOCATION OF ALL BLOCKOUTS, INSERTS, OPENINGS, CURBS, BASES AND PADS FOR ARCHITECTURAL, MECHANICAL, ELECTRICAL AND PLUMBING WITH APPROPRIATE TRADE, DRAWINGS AND SUBCONTRACTORS PRIOR TO CONSTRUCTION.

8. ALL DETAILS SHOWN APPLY WHETHER SPECIFICALLY REFERENCED OR NOT.

9. THE CONTRACT STRUCTURAL DRAWINGS AND SPECIFICATIONS REPRESENT THE FINISHED STRUCTURE. THEY DO NOT INDICATE THE METHOD OF CONSTRUCTION. THE CONTRACTOR SHALL PROVIDE ALL NECESSARY MEASURES TO PROTECT THE STRUCTURE DURING CONSTRUCTION. SUCH MEASURES SHALL INCLUDE, BUT NOT BE LIMITED TO, BRACING AND SHORING OF LOADS DUE TO CONSTRUCTION EQUIPMENT, BACKFILL, AND WIND.

FOUNDATION AND EARTHWORK

1. ALLOWABLE DESIGN SOIL BEARING PRESSURE IS 1000 PSF AT 1'-0" BEARING DEPTH, 1500 PSF AT 1'-6" BEARING DEPTH FOR CLASS 5 SOILS AND 2000 PSF AT 1'-6" BEARING DEPTH FOR CLASS 4 SOILS. REFER TO IBC 2018 TABLE 1806.2.

2. PER IBC 2018 SECTION 1809.4, ALL BOTTOM OF FOOTING ELEVATIONS SHALL BE A MINIMUM OF 1'-0" BELOW ADJACENT GRADE ELEVATION OR FINISHED FLOOR ELEVATION, WHICHEVER IS LOWER. FOUNDATION SHALL BEAR UPON ENGINEERED FILL OR UNDISTURBED SOIL VERIFIED TO MEET OR EXCEED ALLOWABLE DESIGN SOIL BEARING PRESSURES.

3. ALL FOOTINGS SHALL EXTEND 12" BEYOND THE END OF NON-CONTINUOUS WALLS.

4. FLOOR SLAB BASE SHALL BE 4 INCHES OF COMPACTED AGGREGATE BASE COURSE.

5. ALL EXTERIOR FINISHED GRADES SHALL SLOPE TO DRAIN FROM BUILDING WALLS TO ELIMINATE WATER POOLS ADJACENT TO BUILDING FOUNDATIONS.

CONCRETE

1. ALL CONCRETE SHALL BE READY MIXED CONFORMING TO ASTM C-94. TYPE II PORTLAND CEMENT SHALL BE USED FOR ALL CONCRETE. THE FOLLOWING MINIMUM STRENGTH AT 28 DAYS SHALL BE ATTAINED.

FOUNDATIONS, STEM WALLS	3000 PSI
SLABS ON GRADE, SIDEWALKS	3000 PSI
ELEVATED SLABS	4000 PSI

CONCRETE CONT'D

2. THE FOLLOWING LATEST EDITIONS OF ACI STANDARDS OF RECOMMENDED PRACTICE SHALL APPLY TO ALL CONCRETE WORK.

   A. ACI 318 CODE REQUIREMENTS FOR REINFORCED CONCRETE.
   B. ACI 301 SPECIFICATIONS FOR STRUCTURAL CONCRETE FOR BUILDINGS.

3. ALL CONCRETE SHALL HAVE A MINIMUM CEMENT CONTENT OF 5 SACKS PER CUBIC YARD. SLUMP SHALL NOT BE MORE THAN 4 INCHES. ANY DEVIATIONS FROM THESE REQUIREMENTS SHALL BE MADE ONLY WITH THE APPROVAL OF THE ENGINEER.

4. CONCRETE SHALL NOT BE DROPPED MORE THAN FOUR FEET VERTICALLY.

5. MECHANICALLY VIBRATE ALL CONCRETE WHEN PLACED EXCEPT SLABS ON GRADE, 4 INCHES OR LESS IN THICKNESS, NEED BE VIBRATED ONLY AT AREAS OF REINFORCEMENT, THICKENED AREAS AND ADJACENT TO PENETRATIONS.

6. CONCRETE FOOTINGS AND PADS MAY BE POURED AGAINST NEAT EXCAVATIONS, PROVIDED PLAN DIMENSIONS ARE ADHERED TO.

7. ALL REINFORCING BARS, DOWELS, ANCHOR BOLTS, AND OTHER CONCRETE INSERTS SHALL BE SECURED IN POSITION PRIOR TO PLACING CONCRETE.

8. PROVIDE 3/4 INCH CHAMFER ON ALL EXPOSED EDGES OF BEAMS, COLUMNS, WALLS, ETC. UNLESS NOTED OTHERWISE IN DRAWINGS.

9. PROVIDE SLEEVES FOR PLUMBING AND ELECTRICAL OPENINGS IN CONCRETE PRIOR TO PLACING CONCRETE. DO NOT CUT ANY REINFORCING WHICH MAY CONFLICT. CORING OF CONCRETE IS NOT PERMITTED. NOTIFY THE ENGINEER IN ADVANCE OF CONSTRUCTION OF CONDITIONS NOT SHOWN ON DRAWINGS.

10. PROVIDE 1/2 INCH PRE FORMED JOINT FILLER WHERE EXTERIOR SLAB ABUTS VERTICAL SURFACES, TYPICAL, UNLESS NOTED OTHERWISE.

11. OPENINGS, POCKETS, ETC. SHALL NOT BE PLACED IN CONCRETE SLABS, WALLS, BEAMS, JOISTS, COLUMNS, ETC. UNLESS SPECIFICALLY DETAILED ON THE STRUCTURAL DRAWINGS. NOTIFY THE STRUCTURAL ENGINEER, PRIOR TO CONSTRUCTION, WHEN DRAWINGS BY OTHERS SHOW OPENINGS, POCKETS, ETC. WHICH ARE NOT SHOWN ON THE STRUCTURAL DRAWINGS, BUT WHICH ARE THOUGHT TO BE REQUIRED IN STRUCTURAL MEMBERS.

12. CONDUIT, PLUMBING, ETC. SHALL NOT BE CAST IN CONCRETE UNLESS SPECIFICALLY INDICATED ON THE STRUCTURAL DRAWINGS.

13. CONCRETE TESTING SHALL BE DONE IN CONFORMANCE WITH ACI-318 CHAPTER 26, SECTION 26.12

14. CONCRETE CURING SHALL BE PERFORMED IN CONFORMANCE WITH ACI-318 SECTION 5.11.

REINFORCING STEEL

1. REINFORCING STEEL SHALL CONFORM TO ASTM SPECIFICATION A615, GRADE 40 FOR #3 REBAR AND SMALLER AND GRADE 60 FOR #4 REBAR AND LARGER UNLESS NOTED OTHERWISE.

2. WELDED WIRE FABRIC SHALL CONFORM TO ASTM SPECIFICATION A185 AND SHALL HAVE MINIMUM YIELD STRENGTH OF 65000 P.S.I.

3. UNLESS NOTED OTHERWISE ON THE DRAWINGS, THE MINIMUM CLEAR COVER FOR REINFORCEMENT SHALL BE AS FOLLOWS:

   CONCRETE CAST AGAINST EARTH - 3"
   CONCRETE TO BE IN CONTACT WITH EARTH OR WEATHER:
   BARS GREATER THAN #5 - 2"
   BARS #5 OR LESS - 1 1/2"
   CONCRETE NOT TO BE EXPOSED TO GROUND, WEATHER OR LIQUID:
   BEAMS AND COLUMNS - 1 1/2"
   SLABS, WALLS AND JOISTS - 3/4"

4. ALL REINFORCING STEEL SHALL BE ACCURATELY PLACED, ANCHORED, AND SUPPORTED BY CHAIRS, SPACERS OR HANGERS.

5. PROVIDE BENT CORNER BARS TO MATCH AND LAP WITH HORIZONTAL BARS AT CORNERS AND INTERSECTIONS OF FOOTINGS, STEM WALLS, WALLS AND BEAMS.

6. ALL REINFORCING IN CONCRETE SHALL BE CONTINUOUS OR LAPPED AS PER ACI 318. IF SPLICING OF THE BARS IS REQUIRED, NO MORE THAN 50 PERCENT OF THE BARS SHALL BE SPLICED AT ONE LOCATION. ALL BAR SPLICE LOCATIONS AND DETAILS ARE SUBJECT TO THE APPROVAL OF THE ENGINEER.

7. UNLESS NOTED OTHERWISE, LAP SPLICES IN CONCRETE BEAMS AND SLABS SHALL BE CLASS "B" TENSION LAP SPLICES PER LATEST EDITION OF ACI 318. STAGGER ALTERNATE SPLICES A MINIMUM OF ONE LAP LENGTH.

8. LAPS IN WELDED WIRE FABRIC SHALL BE MADE SO THAT THE OVERLAP MEASURED BETWEEN OUTERMOST CROSS WIRES OF EACH FABRIC SHEET IS NOT LESS THAN 6 INCHES OR THE SPACING OF CROSS WIRES PLUS 2 INCHES, WHICHEVER IS GREATEST.

MASONRY

1. CONCRETE MASONRY UNITS SHALL BE HOLLOW, LOAD-BEARING CONFORMING TO ASTM C90, TYPE 1, GRADE N, WITH A MINIMUM 28-DAY NET COMPRESSIVE STRENGTH OF 2000 PSI.

2. MASONRY MORTAR SHALL CONFORM ASTM C 270 FOR TYPE S MORTAR WITH A MINIMUM 28-DAY GROSS COMPRESSIVE STRENGTH OF 1800 PSI.

3. MASONRY GROUT SHALL CONFORM TO ASTM C476 COARSE GROUT, WITH A MINIMUM 28-DAY COMPRESSIVE STRENGTH OF 2000 PSI. CELLS AND COURSES OF HOLLOW UNIT MASONRY WITH REINFORCING BARS SHALL BE FILLED SOLID WITH GROUT. MAXIMUM GROUT LIFT SHALL BE 8'-0". IF GROUT LIFT EXCEEDS 4'-0", PROVIDE CLEANOUTS IN BLOCK WALLS.

4. PROVIDE A MINIMUM OF ONE BAR DIAMETER OF GROUT BETWEEN REINFORCING AND MASONRY UNITS.

5. ALL CELLS CONTAINING REINFORCEMENT SHALL BE GROUTED SOLID.

6. SOLID GROUT ALL MASONRY BELOW GRADE.

7. ALL GROUT SHALL BE CONSOLIDATED BY MECHANICAL VIBRATION (STINGER) IMMEDIATELY AFTER PLACEMENT, AND THEN, RECONSOLIDATED APPROXIMATELY 3 TO 5 MINUTES LATER.

8. FOR TYPICAL HORIZONTAL REINFORCEMENT PROVIDE 2- #4 IN 8" MINIMUM DEEP GROUTED CONTINUOUS BOND BEAM AT LEDGER LEVELS AND AT TOP OF WALL. TO MAINTAIN HORIZONTAL BOND BEAM CONTINUITY, PROVIDE BENT BARS AT CORNERS AND WALL INTERSECTIONS TO MATCH THE HORIZONTAL BOND BEAM REINFORCEMENT. PROVIDE 1- #4 MINIMUM IN 8" DEEP GROUTED BOND BEAM ABOVE AND BELOW ALL OPENINGS, EXTENDING 16" PAST EACH JAMB.

9. ALL MASONRY SHALL BE REINFORCED WITH GALVANIZED HORIZONTAL JOINT REINFORCEMENT AT 16 IN. O.C. JOINT REINFORCEMENT SHALL BE LADDER TYPE AND CONSIST OF AT LEAST TWO LONGITUDINAL 9 GAGE DEFORMED RODS AND SHALL BE LAPPED A MINIMUM OF SIX INCHES AT SPLICES.

10. FOR TYPICAL VERTICAL REINFORCEMENT PROVIDE 1- #4 VERTICAL FOR 8" CMU FULL HEIGHT OF WALL AT 48" O.C. AND AT ALL JAMBS, OPENINGS, WALL CORNERS, INTERSECTIONS, ENDS, BEAM BEARINGS AND EACH SIDE OF CONTROL JOINTS UNLESS NOTED OTHERWISE ON PLANS. SEE FOUNDATION PLANS FOR SPECIFIED REINFORCEMENT.

11. PROVIDE 48 BAR DIAMETER LAP SPLICES FOR TYPICAL REINFORCEMENT. PROVIDE 63 BAR DIAMETER LAP SPLICES IF ADJACENT BARS ARE SEPARATED BY 3 INCHES OR LESS (THIS INCLUDES SPLICES FOR 2 BARS PER CELL IN 8 INCH MASONRY).

12. UNLESS NOTED OTHERWISE, MASONRY ANCHOR PLATES SHALL BE 3/8" THICK AND ANCHOR BOLT OR STUD SIZE SHALL BE 3/4" DIAMETER.

SPECIAL INSPECTION PROGRAM

THIS SPECIAL INSPECTION PROGRAM IS PROVIDED IN CONFORMANCE WITH IBC SECTION 1704 AND 1705. SPECIAL INSPECTION IS TO BE PROVIDED IN ADDITION TO BE INSPECTIONS CONDUCTED BY THE DEPARTMENT OF BUILDING SAFETY AND SHALL NOT BE CONSTRUED TO RELIEVE THE OWNER OR CONTRACTOR FROM REQUESTING THE INSPECTIONS REQUIRED BY IBC. SECTION 110.

THE SPECIAL INSPECTOR SHALL BE EMPLOYED BY THE OWNER, THE ENGINEER OR ARCHITECT OF RECORD, OR AN AGENT OF THE OWNER, BUT NOT THE CONTRACTOR OR ANY OTHER PERSON RESPONSIBLE FOR THE WORK.

1. SPECIAL INSPECTION SHALL BE PROVIDED FOR THE FOLLOWING WORK:

   A. REINFORCEMENT FOR CONCRETE
      1). AFTER PLACEMENT OF REINFORCING STEEL AND BEFORE FORMS ARE CLOSED AND CONCRETE DELIVERED TO JOB SITE

   B. CONCRETE
      1). DURING THE TAKING OF TEST SPECIMENS
      2). DURING PLACEMENT OF REINFORCED CONCRETE
      3). SPECIAL INSPECTION IS NOT REQUIRED FOR UNREINFORCED SLABS ON GRADE

   C. STRUCTURAL MASONRY
      1). DURING PREPARATION AND TAKING OF ANY REQUIRED PRISMS OR TEST SPECIMENS
      2). AT THE START OF LAYING UNITS
      3). OF GROUT SPACE AFTER THE PLACEMENT OF REINFORCING STEEL AND PRIOR TO EACH GROUTING OPERATION
      4). DURING ALL GROUTING OPERATIONS

2. NAME OF SPECIAL INSPECTOR:
   FOR STRUCTURAL ITEMS ABOVE, THE SPECIAL INSPECTOR SHALL BE, OR WORK UNDER THE DIRECT SUPERVISION OF, THE STRUCTURAL ENGINEER OF RECORD – STRUCTURAL CONCEPTS INC., PHONE NO. (520) 721-2324. FOR GEOTECHNICAL ITEMS ABOVE, THE SPECIAL INSPECTOR SHALL BE, OR WORK UNDER THE DIRECT SUPERVISION OF, THE GEOTECHNICAL ENGINEER OF RECORD. SEE GEOTECHNICAL REPORT FOR CONTACT INFORMATION. THE OWNER, AT HIS OPTION, MAY DESIGNATE AN ALTERNATE SPECIAL INSPECTOR, OBTAIN THE REQUIRED CERTIFICATE(S), AND MAKE THE NECESSARY NOTIFICATIONS TO ALL PARTIES INVOLVED. ALTERNATE SPECIAL INSPECTOR SHALL BE A LICENSED STRUCTURAL ENGINEER (OR GEOTECHNICAL ENGINEER FOR GEOTECHNICAL ITEMS ONLY) OR ICBO CERTIFIED SPECIAL INSPECTOR.

3. DUTIES OF SPECIAL INSPECTOR:
   OBSERVE FIELD CONDITIONS FOR CONFORMANCE WITH CONSTRUCTION DOCUMENTS. ALL DISCREPANCIES SHALL BE BROUGHT TO THE IMMEDIATE ATTENTION OF THE CONTRACTOR FOR CORRECTION, AND IF UNCORRECTED, BROUGHT TO THE ATTENTION OF THE ENGINEER OF RECORD AND THE BUILDING OFFICIAL. PREPARE FIELD REPORTS DAILY. FIELD REPORTS SHALL INDICATE, AS A MINIMUM, THE DATE, THE PORTION OF THE WORK THAT WAS INSPECTED, AND ANY UNCORRECTED DISCREPANCIES. UPON COMPLETION OF THE WORK, THE SPECIAL INSPECTION CERTIFICATE SHALL BE COMPLETED AND SEALED BY THE SUPERVISING ENGINEER AND SUBMITTED TO THE BUILDING OFFICIAL ALONG WITH COPIES OF THE FIELD REPORTS.

4. THE CONTRACTOR SHALL BE RESPONSIBLE FOR CONTACTING THE SPECIAL INSPECTOR AT LEAST ONE WORKING DAY IN ADVANCE TO SCHEDULE ANY SPECIAL INSPECTION.

NO.	BY	DATE	REVISION	APPR.	DATE

FOR ENGINEERING AS-BUILT RECORD DRAWING STAMP

Registered Professional Engineer — CERTIFICATE NO. 23636 — DOROTHY CHAVEZ-DOLAN — 12-26-19 — Date Signed — ARIZONA, U.S.A.

Dorothy C. Dolan

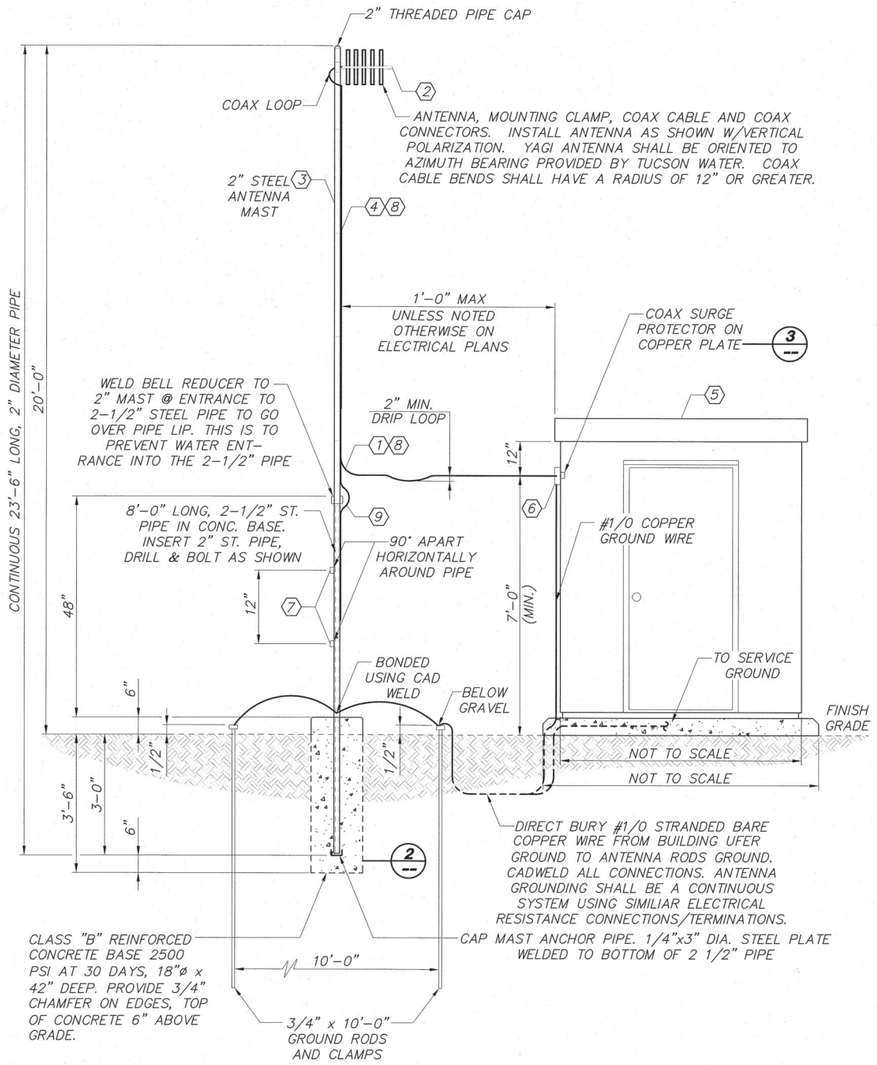
TUCSON WATER — A proud part of the City of Tucson

CITY OF TUCSON

EQUIP WELL B-044C

CONTROL BUILDING STRUCTURAL NOTES

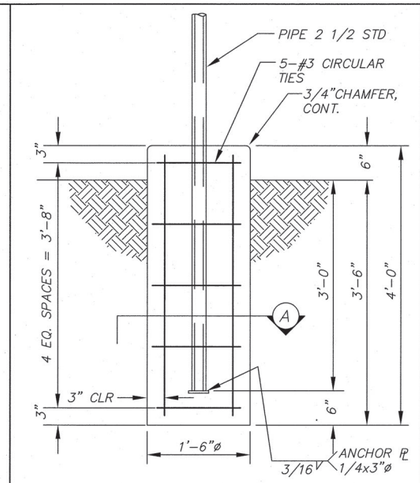
DESIGNED BY: D. DOLAN	DATE: 09/19	CAD FILE REF: 0742019-13	SHEET 13 OF 24
DRAWN BY: J. LIZARDI/L.S.	DATE: 09/19	SCALE: NONE	
CHECKED BY: M. SANDERS	DATE: 09/19		PLAN NO. 9-074-2019



NOTES: ⬡

1. COAX GROUNDING KIT, ANDREW TYPE 241088-1, INSTALL AS SHOWN IN KIT. RUN #1/0 COPPER WIRE OR BRAIDED UPPER STRAP TO GROUND ROD.
2. WEATHERPROOF 1/2" ANTENNA COAX CABLE TO ANTENNA CONNECTION POINT USING CONNECTOR/SPLICE WEATHERPROOF KIT; ANDREW TYPE 221213; TO SEAL AGAINST MOISTURE.
3. PIPE SHALL BE GALVANIZED "STD" WEIGHT STEEL PIPE AS PER ASTM 120.
4. INSTALL COAX LINE INSIDE +/- 10 FT. OF 1" RIGID STEEL CONDUIT. SECURELY WELD CONDUIT TO ANTENNA MAST AT TOP, MIDDLE AND BOTTOM OF +/- 10 FT. CONDUIT.
5. SEE ELECTRICAL PLAN FOR RADIO CABINET LOCATION IN CONTROL BUILDING AND RADIO ANTENNA LOCATION OUTSIDE CONTROL BUILDING, AND CONTROL BUILDING DIMENSIONS.
6. 12"x12"x1/4" COPPER PLATE COVERING 8"X8" CUTOUT IN BUILDING WALL AND MOUNTED ON OUTSIDE OF BUILDING WALL.
7. 1/2" STEEL NUT WELDED TO 2 1/2" PIPE WITH HOLE THRU PIPE AT NUT OPENING. 1/2" STEEL BOLT SCREWED INTO NUT TO PREVENT 2" PIPE FROM MOVING INSIDE 2-1/2" PIPE.
8. PROVIDE ANDREWS 43211A HANGER KIT STRAIN RELIEF FOR 1/2" COAX CABLE, WHERE CABLE ENTERS TOP AND BUTTOM OF 1" RIGID STEEL CONDUIT. ATTACH HANGER KIT TO 2" MAST USING ANDREWS 31670-2 STAINLESS STEEL ROUND MEMBER ADAPTER.
9. SINGLE HOLE COMPRESSION LUGS WITH BOLT AND NUT, CONNECTING GROUND WIRE AROUND BELL REDUCER.

1 RADIO ANTENNA INSTALLATION DETAILS
NOT TO SCALE



2 RADIO ANTENNA CONCRETE BASE DETAIL
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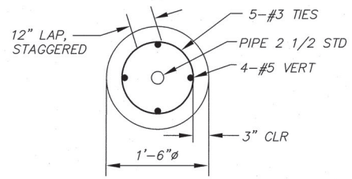
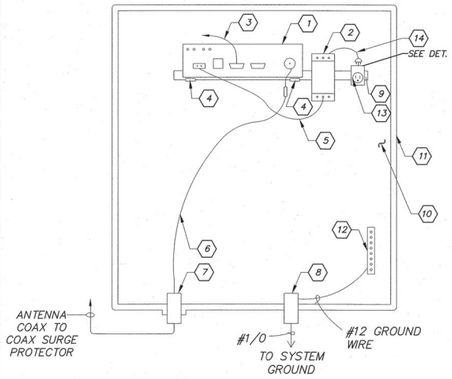
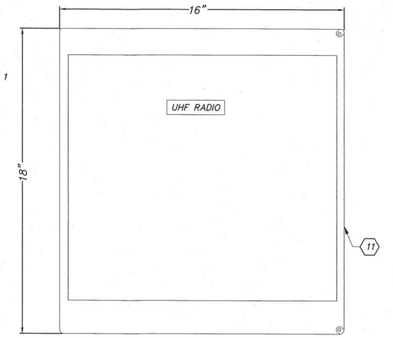


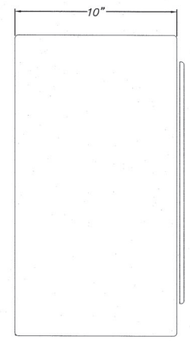
A SECTION
SCALE: 1/4"=1'-0"



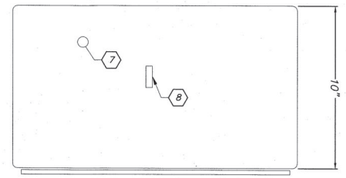
INTERIOR LAYOUT



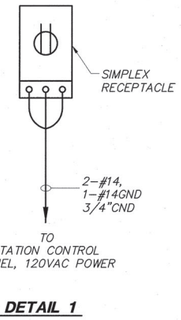
FRONT VIEW



SIDE VIEW



BOTTOM VIEW

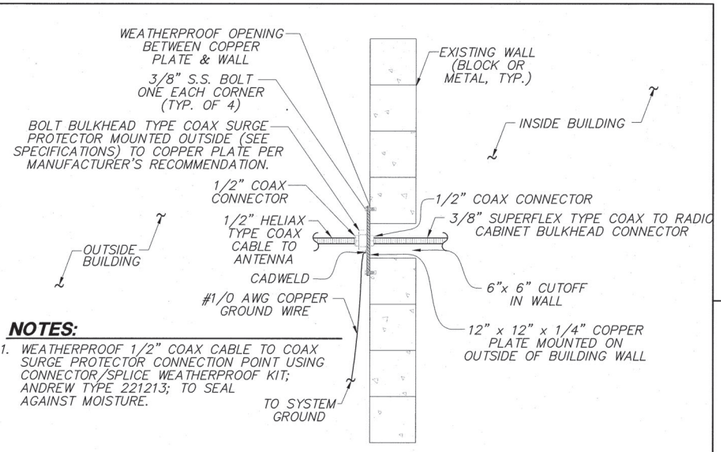


DETAIL 1

BILL OF MATERIALS

ITEM	QTY.	MANUFACTURER	PART NUMBER	DESCRIPTION
1	1	GE/MICROWAVE DATA SYSTEMS	MXNXL9CNNNNNNS1F5DUNN	ORBIT MCR 900 MHZ DATA TRANSCEIVER/ROUTER WITH MFGR. DIN RAIL MOUNTING
2	1	IDEC	PS5R-VC12	12 VOLT POWER SUPPLY, 30W
3	1	GE/MICROWAVE DATA SYSTEMS	73-2434A25	RJ45 TO DB-9F ADAPTER
4	1			15' 9/C CABLE WITH 1 TO 1 PINOUT AND DB9M CONNECTOR AT ONE END AND DB9F CONNECTOR AT OTHER END
5	1	MICROWAVE DATA SYSTEMS		POWER INPUT CONNECTOR, 2-#14 (1 BK, 1 RD) BETWEEN RADIO AND AND 12VDC POWER SUPPLY
6	1			LENGTH AS REQ'D OF RG-58/U COAXIAL CABLE, TNC-MALE TO N-MALE CONNECTORS
7	1	TALLEY COMMUNICATIONS	82-66	N-FEMALE TO N-FEMALE BULKHEAD CONNECTOR
8	1			C-CLAMP GROUNDING LUG
9	1	IDEC	BNDN1000	DIN RAIL
10	1	HOFFMAN	A-18P16	FULL LENGTH & WIDTH PANEL
11	1	HOFFMAN	A-181610CHQRFG	NEMA 4X ENCLOSURE 18" X 16" X 10"/QUICK-RELEASE LATCHES
12	1			GROUND BUS BAR
13	1	PHOENIX CONTACT	2963860	SIMPLEX RECEPTACLE, 15A, 120VAC
14	1			3 PRONG PLUG W/3-#14
15	1			RJ45 CONNECTOR CABLE

4 UHF RADIO ENCLOSURE W/EQUIPMENT
NOT TO SCALE



NOTES:

1. WEATHERPROOF 1/2" COAX CABLE TO COAX SURGE PROTECTOR CONNECTION POINT USING CONNECTOR/SPLICE WEATHERPROOF KIT; ANDREW TYPE 221213; TO SEAL AGAINST MOISTURE.

3 COAX SURGE PROTECTOR INSTALLATION DETAIL
NOT TO SCALE

NOTES:

1. NAMEPLATE "UHF RADIO" SHALL BE PERMANENTLY ATTACHED TO OUTSIDE OF RADIO ENCLOSURE DOOR.
2. CONTRACTOR SHALL FIELD VERIFY RS-232C CONNECTION WIRING AND WIRE TAGGING, WITH THE RADIO AND STATION CONTROL PANEL SUPPLIED AND ADJUST WIRING AND WIRE TAGGING AS REQUIRED.
3. SEE SPECIFICATIONS FOR UHF RADIO SYSTEM REQUIREMENTS.
4. CLEARANCE DIMENSIONS FOR PANEL INSTRUMENTS SHALL BE VERIFIED BY THE CONTRACTOR DURING PANEL FABRICATION. CONTRACTOR IS RESPONSIBLE FOR INSURIING THAT ALL INSTRUMENT INSTALLATIONS CLEAR DOOR OPENING.
5. ALL SUBPANELS SHALL BE BONDED TOGETHER WITH #12 AWG GROUND WIRE.
6. ALL EQUIPMENT, DEVICES, ETC. MOUNTED ON THE SUBPANEL(S) SHALL BE MOUNTED USING DRILL AND TAP METHOD. NUTS SHALL NOT BE USED ON THE BACK OF SUBPANEL(S). FLAT WASHERS AND LOCK WASHERS SHALL ALSO BE USED TO SECURE EQUIPMENT TO SUBPANEL(S).

NO.	BY	DATE	REVISION	APPR.	DATE

FOR ENGINEERING AS-BUILT RECORD DRAWING STAMP

Registered Professional Engineer — CERTIFICATE NO. 26368 — FRANK E. YOURISON — 3/4/20 — ARIZONA U.S.A. — Expires 9/30/21

TUCSON WATER

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EQUIP WELL B-044C

RADIO CABINET AND ANTENNA INSTALLATION DETAILS

DESIGNED BY: F. YOURISON	DATE: 02/20	CAD FILE REF: 0742019-21	SHEET 21 OF 24
DRAWN BY: L. SPITZER	DATE: 02/20	SCALE: NONE	PLAN NO. 9-074-2019
CHECKED BY: F. YOURISON	DATE: 02/20		