

2

JUN 12 2008

ORDINANCE NO. 3932

AN ORDINANCE OF THE CITY COUNCIL OF THE CITY OF CHANDLER, ARIZONA, AMENDING SECTION 43-5.1 OF CHAPTER 43 OF CHANDLER CITY CODE; RELATING TO THE CITY OF CHANDLER STANDARD DETAILS AND SPECIFICATIONS.

WHEREAS, the City has Standard Details and Specifications that are used to establish minimum standards for construction; and

WHEREAS, from time to time the Standard Details and Specifications need to be revised to accommodate changes in design standards, construction techniques, needed project features, and errors or omissions; and

WHEREAS, corrections are necessary to resolve dimensional errors on certain transportation related standard details and municipal utilities water and reclaimed meter and service details;

NOW, THEREFORE, BE IT ORDAINED by the City Council of the City of Chandler, Arizona:

Section 1. Section 43-5.1 is hereby amended to read as follows:

43-5.1 City of Chandler Standard Details and Specifications. That certain document on file with the City Clerk marked, known and designated as "City of Chandler Standard Details and Specifications, " January 2007 edition, including the May 2008 Amendment, is hereby adopted by reference and made a part hereof as if set forth at length herein.

Section 2. Attached as Exhibit A is the May 2008 Amendment to the "City of Chandler Standard Details and Specifications", January 2007 edition.

INTRODUCED AND TENTATIVELY APPROVED by the City Council this 22rd day of May 2008.

ATTEST:

CITY CLERK

MAYOR

PASSED AND ADOPTED by the City Council of the City of Chandler, Arizona this _____ day of _____, 2008.

ATTEST:

CITY CLERK

MAYOR

CERTIFICATION

I HEREBY CERTIFY that the above and foregoing Ordinance No. 3932 was duly passed and adopted by the City Council of the City of Chandler, Arizona, at a regular meeting held on the _____ day of _____, 2008 and that a quorum was present thereat.

CITY CLERK

APPROVED AS TO FORM:

CITY ATTORNEY 

PUBLISHED:

EXHIBIT A



Chandler ♦ **Arizona**
Where Values Make The Difference

MEMORANDUM PUBLIC WORKS ENGINEERING

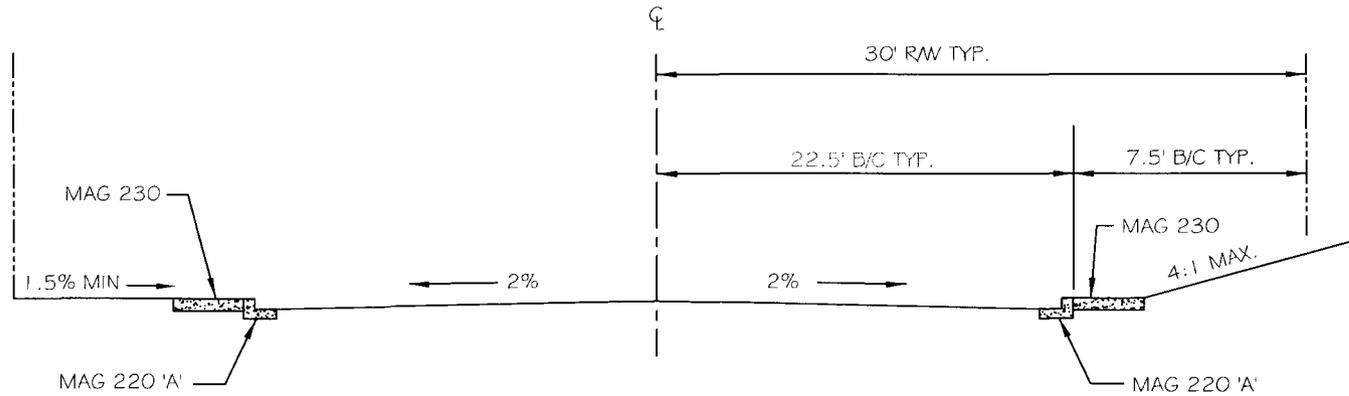
DATE: MAY 22, 2008

FROM: WARREN WHITE, SENIOR ENGINEER

SUBJECT: May 2008 Amendment to the Engineering Standard Details and Specifications (2007 Edition)

The attached information replaces information in the Engineering Standard Details and Specifications (2007 Edition)

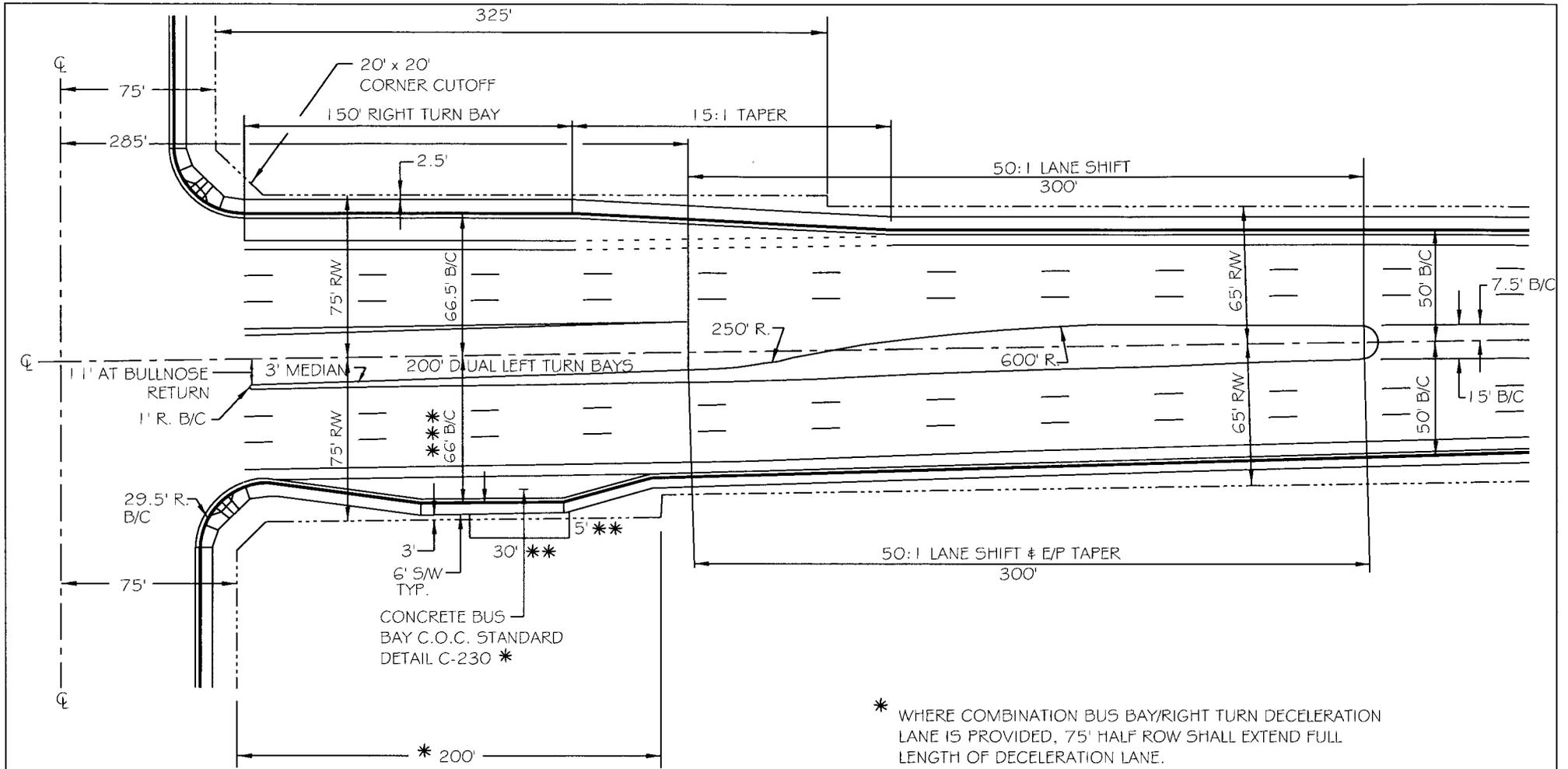
- Detail C-210 - revised cross section dimension from 21' B/C to 22.5' B/C.
- Detail C-223 (Pg 2) - revised median bullnose radius dimension from 2' B/C to 1' B/C.
- Detail C-226 - revised median bullnose radius dimension of 1' B/C to 0.5' B/C.
- Detail C-301- graphical revisions for clarification, corrections to notes, updates for a new a polymer meter box and cover and new signal antenna used by Utility Services to read meter usage.
- Detail C-316 - graphical revisions for clarification, corrections to notes, updates for new vault requirements and notes to allow Water Distribution to supply and install all large meters (3" and larger). Note: The city already installs 2" and smaller meters.
- Detail C-404 (PG 1-12) – revisions and additional standard details needed for reclaimed water services to accommodate various meter sizes and flow requirements.
- Detail C-416 – New detail for 3" and 4" reclaimed water meter vault. Water Distribution to supply and install similar to C-316.



NOTES:

1. THE SUBGRADE SHALL BE PREPARED IN ACCORDANCE WITH MAG STANDARD SPECIFICATIONS, SEC. 301.
2. BASE COURSE:
 - A. THE THICKNESS SHALL CONFORM TO COC STANDARD DETAIL C-241 FOR RESIDENTIAL AREAS AND COC STANDARD DETAIL C-240 FOR ALL OTHER AREAS.
 - B. ALL CONSTRUCTION AND MATERIALS SHALL CONFORM TO MAG STANDARD SPECIFICATIONS, SECS. 310 AND 702.
3. ASPHALTIC CONCRETE PAVEMENT:
 - A. THE THICKNESS SHALL BE A MINIMUM OF 2 INCHES OF R12.5 MM EVAC MIX.
 - B. A PRESERVATIVE SEAL COAT CONFORMING TO MAG STANDARD SPECIFICATIONS 334, AND SHALL BE EMULSIFIED ASPHALT GRADE 55-1 H PER MAG STANDARD SPECIFICATIONS, SEC. 713.
 - C. ALL CONSTRUCTION AND MATERIALS SHALL CONFORM TO MAG STANDARD SPECIFICATIONS, SECS. 321 AND 710.
4. WHEN IN THE BEST INTEREST OF THE CITY, THE PUBLIC WORKS DIRECTOR, OR DESIGNEE, MAY WAIVE SIDEWALK ON ONE SIDE OF ROADWAY OR ON BOTH SIDES IN INDUSTRIAL AREAS.
5. 0.2% MINIMUM LONGITUDINAL GRADE ALLOWED.

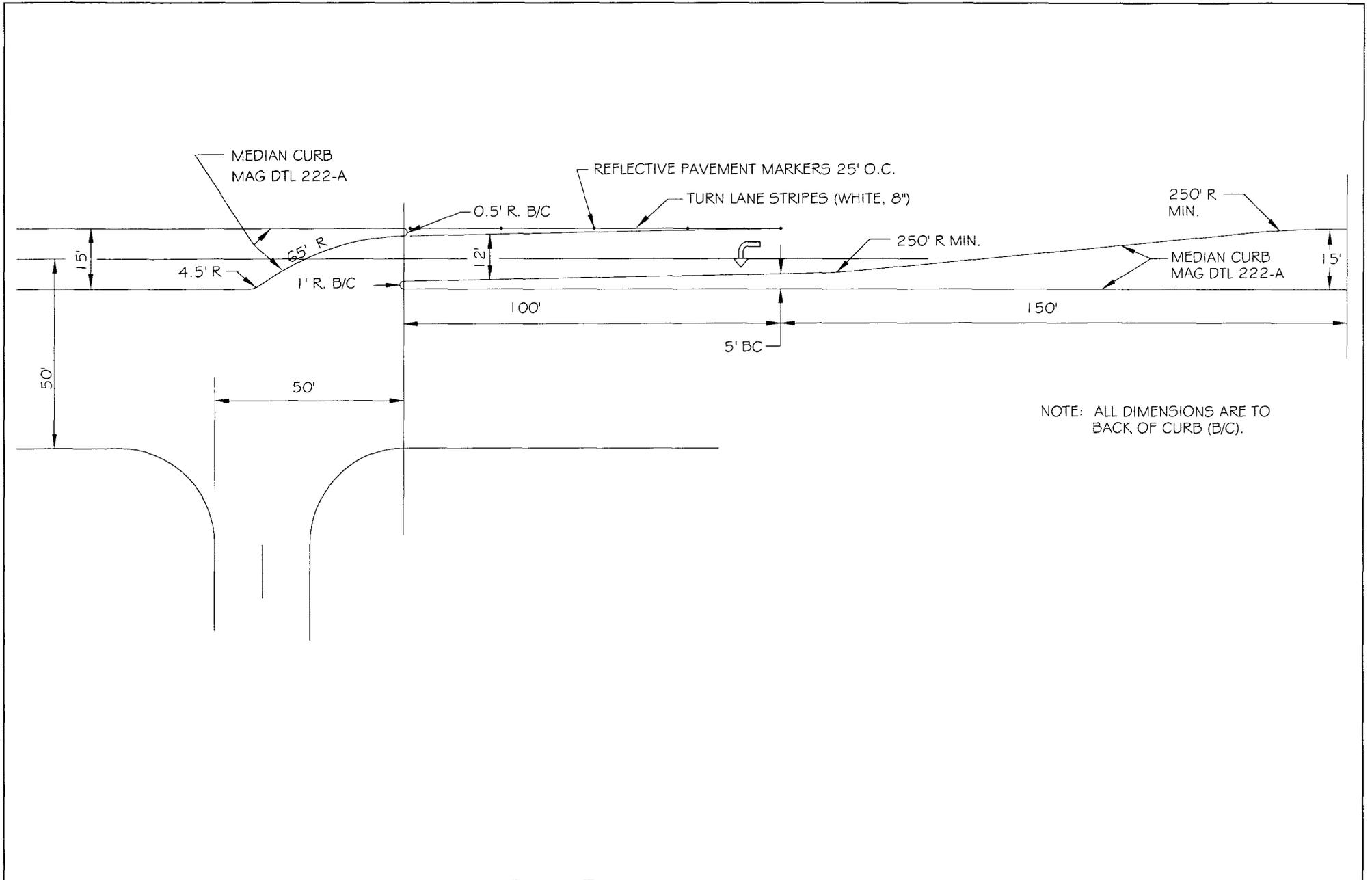
DETAIL NO. C-210 NTS	 CITY OF CHANDLER STANDARD DETAIL	RESIDENTIAL COLLECTOR STREET TYPICAL CROSS SECTION	APPROVED: _____ CITY ENGINEER DATE: _____	DETAIL NO. C-210 NTS
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- * WHERE COMBINATION BUS BAY/RIGHT TURN DECELERATION LANE IS PROVIDED, 75' HALF ROW SHALL EXTEND FULL LENGTH OF DECELERATION LANE.
- ** ADDITIONAL 5' X 30' EASEMENT SHALL BE REQUIRED OF DEVELOPER FOR BUS SHELTER PAD.
- *** 66.5' B/C AND 2.5' FOR INTEGRAL BUS BAY/DECELERATION LANE, SEE C.O.C. STANDARD DETAIL C-231.
- **** REFER TO COC STANDARD DETAIL C-619 AND C-623 FOR PAVEMENT MARKING AND SIGNING.

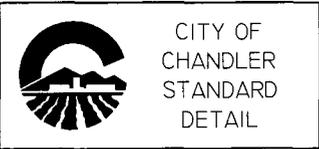
NOTES:

50 : 1 TAPERS FOR REDIRECTION OF THROUGH LANES
 15 : 1 TAPERS FOR RIGHT TURN BAY APPROACHES



NOTE: ALL DIMENSIONS ARE TO BACK OF CURB (B/C).

DETAIL NO.
C-226
 NTS

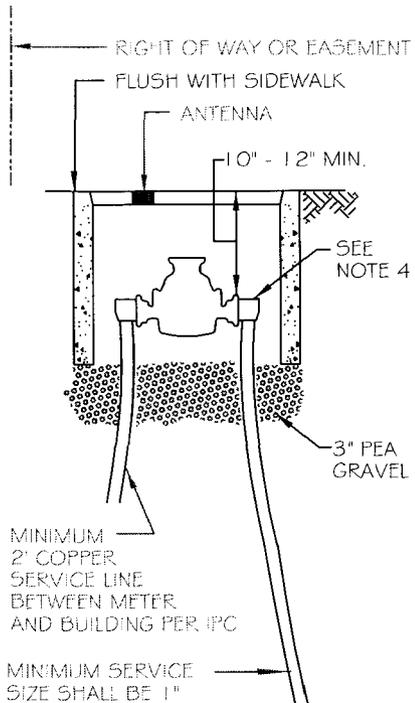


"LEFT IN ONLY" MEDIAN DESIGN
16' WIDE MEDIAN

APPROVED: _____
 CITY ENGINEER
 DATE: _____

DETAIL NO.
C-226
 NTS

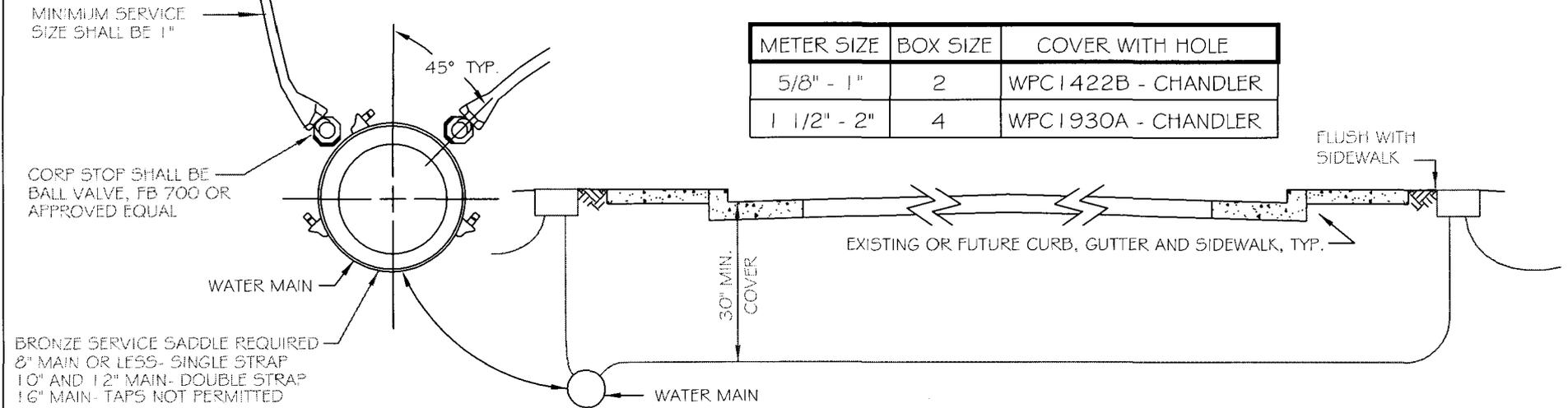
CAUTION: BEFORE SERVICES ARE INSTALLED, DRIVEWAY LOCATIONS SHOULD BE VERIFIED AND THE SERVICES CONSTRUCTED TO AVOID CONFLICTS.



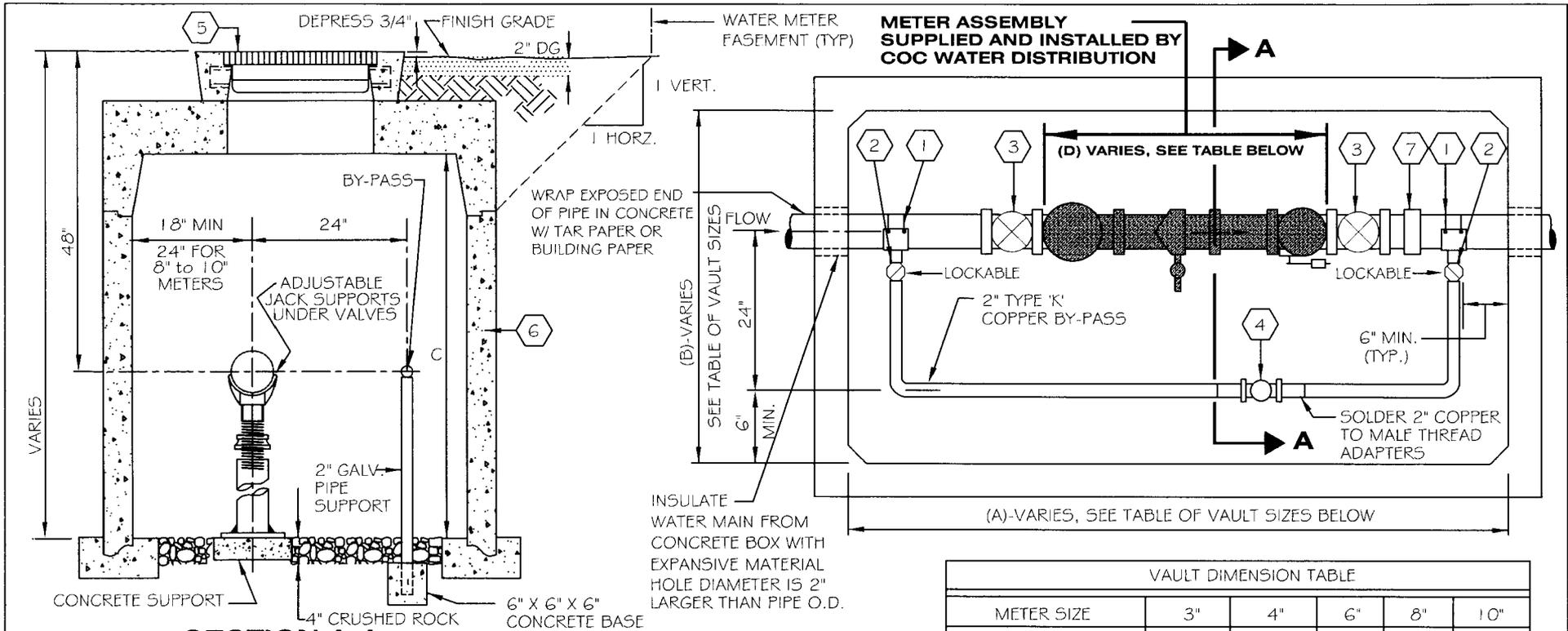
NOTES:

1. TYPE 'K' RIGID COPPER SERVICE (1 - 1/2" # LARGER) SHALL HAVE SWEAT JOINTS. 1" SERVICES SHALL BE TYPE K SOFT COPPER WITH FLARED FITTINGS. COMPRESSION FITTINGS ARE NOT ALLOWED.
2. CONTRACTOR SHALL BACKFILL AND COMPACT THE TRENCHES PER MAG STANDARD SPECIFICATION TABLE 601-2.
3. CITY OF CHANDLER TO SET WATER METERS WHEN ORDERED BY OWNER/DEVELOPER. THE CITY DOES NOT PROVIDE ANY PARTS NEEDED PRIOR TO, OR AFTER, METER INSTALLATION. CONTRACTOR SHALL PROVIDE BRASS BOLTS FOR LARGER THAN 1" METERS.
4. ANGLE BALL METER VALVE SHALL BE FORD BA23-342W, BA23-444W, BFARW1 3, BFA1 3, OR APPROVED EQUAL. SET 1" BELOW TOP OF THE COVER.
5. METER BOX SHALL BE SET WITHIN CITY RIGHT OF WAY, OR DEDICATED WATERLINE EASEMENT. TOP OF BOX SHALL BE FLUSH WITH TOP OF SIDEWALK, OR IN CASES OF SLOPING YARDS, FLUSH WITH DRIVE PERPENDICULAR TO STREET.
6. LONG DIMENSION OF METER AND BOX SHALL BE PERPENDICULAR TO STREET.
7. NO METER SHALL BE SET IN ANY CONCRETE OR PERMANENT STRUCTURE.
8. METER BOX PER MAG STD. DET. 320, CONCRETE OR POLYMER EQUAL.
9. METERS BOXES IN PARALLEL INSTALLATION SHALL HAVE A MINIMUM 4" CLEAR ON THE SIDES. WHERE BACKFLOW ASSEMBLIES ARE SPECIFIED, EACH METER SHALL HAVE ITS OWN BACKFLOW ASSEMBLY.
10. BOX COVER SHALL BE "POLYMER CONCRETE" WITH METER READER ANTENNA HOLE. BOX COVERS FOR RECLAIMED WATER SERVICES SHALL BE PAINTED PANTONE 512 PURPLE. COVER SHALL IDENTIFY "CITY OF CHANDLER" AND SPECIFY "WATER", OR "RECLAIMED WATER". THE FOLLOWING NEWBASIS COVERS ARE ACCEPTABLE (PART NUMBER):

METER SIZE	BOX SIZE	COVER WITH HOLE
5/8" - 1"	2	WPC1422B - CHANDLER
1 1/2" - 2"	4	WPC1930A - CHANDLER



DETAIL NO. C-301 NTS	CITY OF CHANDLER STANDARD DETAIL	WATER SERVICE INSTALLATION	APPROVED: _____ CITY ENGINEER DATE: _____	DETAIL NO. C-301 NTS
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VAULT DIMENSION TABLE					
METER SIZE	3"	4"	6"	8"	10"
LENGTH (A)	8' - 4"	10' - 6"	12'	14'	15' - 0"
WIDTH (B)	4' - 4"	5'	5'	5' - 6"	5' - 6"
INSIDE HEIGHT (C)	4' - 6"	5' - 0"	5' - 6"	6' - 0"	6' - 6"
METER ASSEMBLY (D)					
BLOCK OUT					
COMPOUND METER	3' - 8"	4' - 5"	6' - 8"	8' - 1"	10' - 0"
TURBINE METER	3' - 3"	3' - 11"	6' - 7"	7' - 11"	9' - 0"

SECTION A-A

NOTES:

1. METER VAULTS MAY BE EITHER CAST-IN-PLACE OR PRE-CAST CONCRETE. SEE MAG STANDARD DETAIL 321 FOR VAULT CONSTRUCTION, 3" TO 6" METERS.
2. FOR LARGER THAN 6" METERS SPECIAL VAULT DESIGN IS REQUIRED. SUBMIT FOR APPROVAL.
3. STAINLESS BOLTS AND NUTS REQUIRED FOR ENTIRE ASSEMBLY.
4. PIPE MAIN SHALL BE FULLY RESTRAINED BEYOND INLET AND OUTLET OF VAULT.
5. CONTRACTOR SHALL PROVIDE FLANGED SPOOL IN METER ASSEMBLY BLOCK-OUT TO PROVE CORRECT ALIGNMENT. SPOOL MAY BE SALVAGED AFTER METER INSTALLATION.
6. VAULT LID SHALL NOT BE INSTALLED UNTIL AFTER METER IS INSTALLED BY CITY. CALL (480) 782-3700.

LEGEND:

1. DOUBLE STRAP ALL BRONZE SERVICE SADDLES.
2. 2" CORP STOP WITH BRONZE OR BRASS BODY, LOCKABLE, TO NORMALLY BE CLOSED.
3. O.S. & Y. GATE VALVE, FLANGED WITH HAND WHEEL OPEN LEFT, AND RISING STEM.
4. 2" BRONZE CHECK VALVE. (LOW ZINC)
5. METER HATCH PER SYRACUSE CASTINGS "CH-AL" STYLE PEDESTRIAN RATED ALUMINUM WITH SLAM LOCK OR APPROVED EQUAL. 3" & 4" - CH-5AL 42" X 42", 6" THROUGH 10" - CHD-9AL 36" X 60". UPON APPROVAL FROM CITY, DRILL 1-3/4" HOLE(S) IN HATCH FOR METER TRANSMITTER(S).
6. METER VAULT PER UTILITY VAULT COC STANDARD DETAIL OR APPROVED EQUAL.
7. PROVIDE 1" TO 1-1/2" OF PLAY IN THE FLEX COUPLING - CAULDER OR EQUAL.

DETAIL NO. C-316 NTS	 CITY OF CHANDLER STANDARD DETAIL	3" TO 10" METER VAULT	APPROVED: _____ CITY ENGINEER DATE: _____	DETAIL NO. C-316 NTS
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RECLAIMED WATER SERVICE CONNECTIONS SIZING TABLE

SERVICE CONNECTION FLOW RATE (GPM)	IRRIGATION SERVICE LINE SIZE (AFTER PUMP)	RECLAIMED WATER SERVICE CONNECTION LINE SIZE (FROM MAIN TO PUMP)	WET WELL PUMP SEE PAGES:	CAN PUMP SEE PAGES:
UP TO 80	2"	3"	PAGE 3	-
80 TO 170	3"	4"	PAGE 4	-
170 TO 300	4"	6"	PAGES 5 & 6	PAGES 9 & 10
300 TO 700	6"	8"	PAGES 7 & 8	PAGES 11 & 12

NOTES:

1. THE DATA FORM ON DETAIL C-404 PAGE 2 MUST BE COMPLETED AND SUBMITTED WITH THE BUILDING PERMIT APPLICATION FOR THE INLINE PUMP AND CAN PUMP SERVICE CONNECTIONS.
2. THESE RECLAIMED WATER SERVICE CONNECTION DETAILS PRESENT THE MINIMUM REQUIREMENTS TO ENSURE THE INTEGRITY OF THE CITY OF CHANDLER'S RECLAIMED WATER DISTRIBUTION SYSTEM. ALL RECLAIMED WATER SERVICE CONNECTIONS MUST BE DESIGNED IN ACCORDANCE WITH THESE DETAILS AND THE SITE-SPECIFIC REQUIREMENTS INCLUDING: THE GROUND ELEVATION, IRRIGATION SYSTEM FLOW REQUIREMENTS, AND IRRIGATION SYSTEM PRESSURE REQUIREMENTS.
3. ALL RECLAIMED WATER SERVICE CONNECTIONS SHALL BE DESIGNED IN ACCORDANCE WITH MARICOPA COUNTY ENVIRONMENTAL SERVICES DEPARTMENT (MCESD) AND ARIZONA DEPARTMENT OF ENVIRONMENTAL QUALITY (ADEQ) REQUIREMENTS.
4. AN APPROVAL TO CONSTRUCT PERMIT FROM MCESD IS REQUIRED FOR ALL RECLAIMED WATER SERVICE CONNECTIONS PRIOR TO CONSTRUCTION. A COPY OF THE APPROVAL OF CONSTRUCTION FROM MCESD MUST BE SUBMITTED TO THE CITY OF CHANDLER PRIOR TO PLACING THE RECLAIMED WATER SERVICE CONNECTION IN SERVICE.
5. ALL ABOVE GROUND PIPING SHALL BE PAINTED PURPLE OR STENCILED IN ACCORDANCE WITH MARICOPA ASSOCIATION OF GOVERNMENTS (MAG) STANDARDS SECTION 616.4.2.

DETAIL NO. <b style="font-size: 1.5em;">C-404 PAGE 1 OF 12	 CITY OF CHANDLER STANDARD DETAIL	<b style="font-size: 1.2em;">RECLAIMED WATER SERVICE CONNECTIONS	APPROVED: _____ CITY ENGINEER DATE: _____	DETAIL NO. <b style="font-size: 1.5em;">C-404 PAGE 1 OF 12
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DEVELOPER: _____

TURNOUT ADDRESS: _____

FLOW RATE CRITERIA

ANNUAL AVERAGE _____ ACRE FT/YEAR

MAXIMUM MONTH _____ ACRE FT

INSTANTANEOUS _____ GPM

SUCTION HEAD CALCULATION

① LENGTH AND DIAMETER OF PIPING FROM NEAREST RECLAIMED WATER TRANSMISSION MAIN (RWTM) TO TURNOUT _____

② FRICTION LOSSES IN PIPING FROM RWTM TO TURNOUT AT INSTANTANEOUS FLOW RATE _____ FEET

③ HGL IN RWTM 1330 TO 1345 FEET

④ HGL AT TURNOUT (HGL OF RWTM LESS FRICTION LOSSES CALCULATED ABOVE) _____ TO _____ FEET

⑤ ELEVATION AT TURNOUT _____ FEET

⑥ SUCTION PRESSURE AT TURNOUT _____ TO _____ PSI

⑦ PUMP TDH _____ FEET

⑧ DISCHARGE PRESSURE _____ PSI

DETAIL NO.

C-404

PAGE 2 OF 14



CITY OF
CHANDLER
STANDARD
DETAIL

**RECLAIMED WATER SERVICE
CONNECTION DATA FORM**

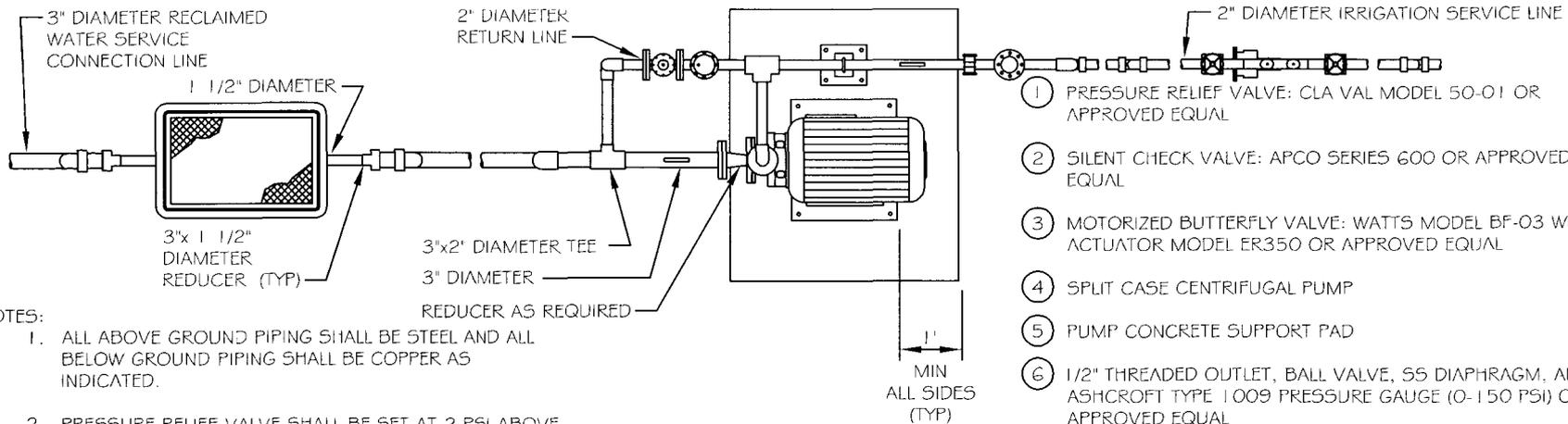
APPROVED: _____
CITY ENGINEER

DATE: _____

DETAIL NO.

C-404

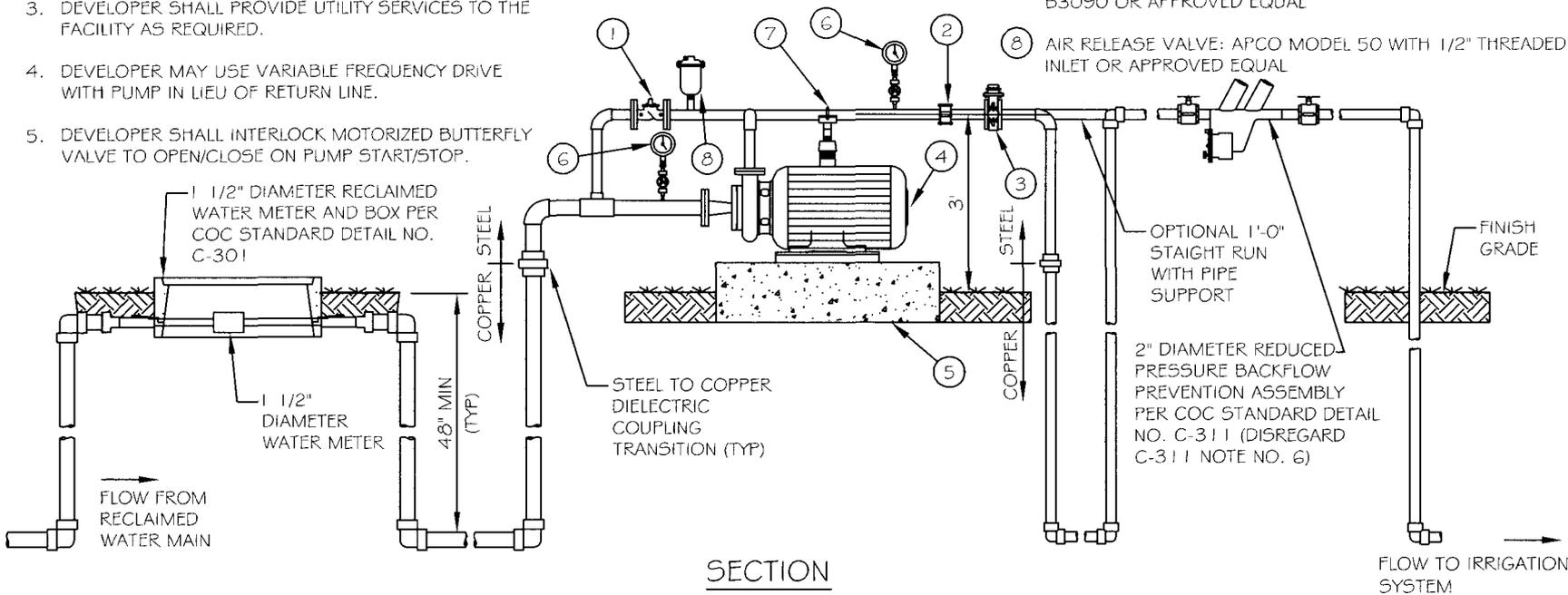
PAGE 2 OF 12



NOTES:

1. ALL ABOVE GROUND PIPING SHALL BE STEEL AND ALL BELOW GROUND PIPING SHALL BE COPPER AS INDICATED.
2. PRESSURE RELIEF VALVE SHALL BE SET AT 2 PSI ABOVE SPRINKLER DESIGN PRESSURE.
3. DEVELOPER SHALL PROVIDE UTILITY SERVICES TO THE FACILITY AS REQUIRED.
4. DEVELOPER MAY USE VARIABLE FREQUENCY DRIVE WITH PUMP IN LIEU OF RETURN LINE.
5. DEVELOPER SHALL INTERLOCK MOTORIZED BUTTERFLY VALVE TO OPEN/CLOSE ON PUMP START/STOP.

PLAN



SECTION

DETAIL NO.
C-404
PAGE 3 OF 12

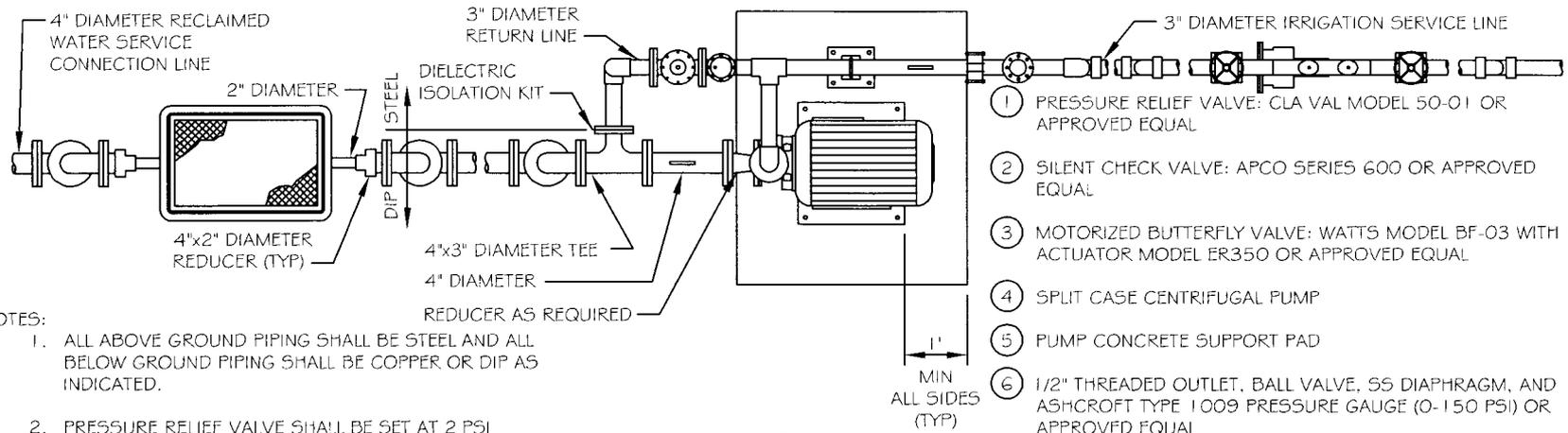


CITY OF
CHANDLER
STANDARD
DETAIL

**2" RECLAIMED WATER
IRRIGATION SERVICE LINE
INLINE PUMP TYPE**

APPROVED: _____
CITY ENGINEER
DATE: _____

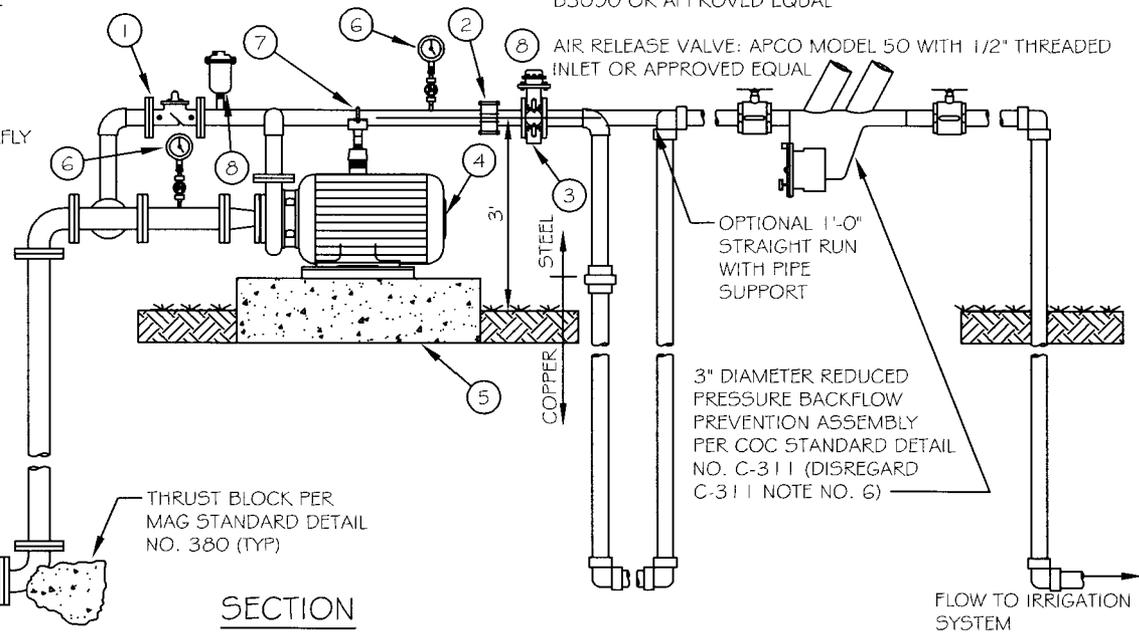
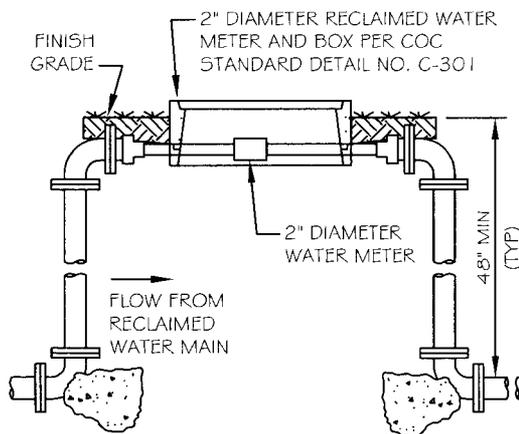
DETAIL NO.
C-404
PAGE 3 OF 12



NOTES:

1. ALL ABOVE GROUND PIPING SHALL BE STEEL AND ALL BELOW GROUND PIPING SHALL BE COPPER OR DIP AS INDICATED.
2. PRESSURE RELIEF VALVE SHALL BE SET AT 2 PSI ABOVE SPRINKLER DESIGN PRESSURE.
3. DEVELOPER SHALL PROVIDE UTILITY POWER TO THE FACILITY AS REQUIRED.
4. DEVELOPER MAY USE VARIABLE FREQUENCY DRIVE WITH PUMP IN LIEU OF RETURN LINE.
5. DEVELOPER SHALL INTERLOCK MOTORIZED BUTTERFLY VALVE TO OPEN/CLOSE ON PUMP START/STOP.

PLAN



SECTION

DETAIL NO.
C-404
PAGE 4 OF 12



CITY OF
CHANDLER
STANDARD
DETAIL

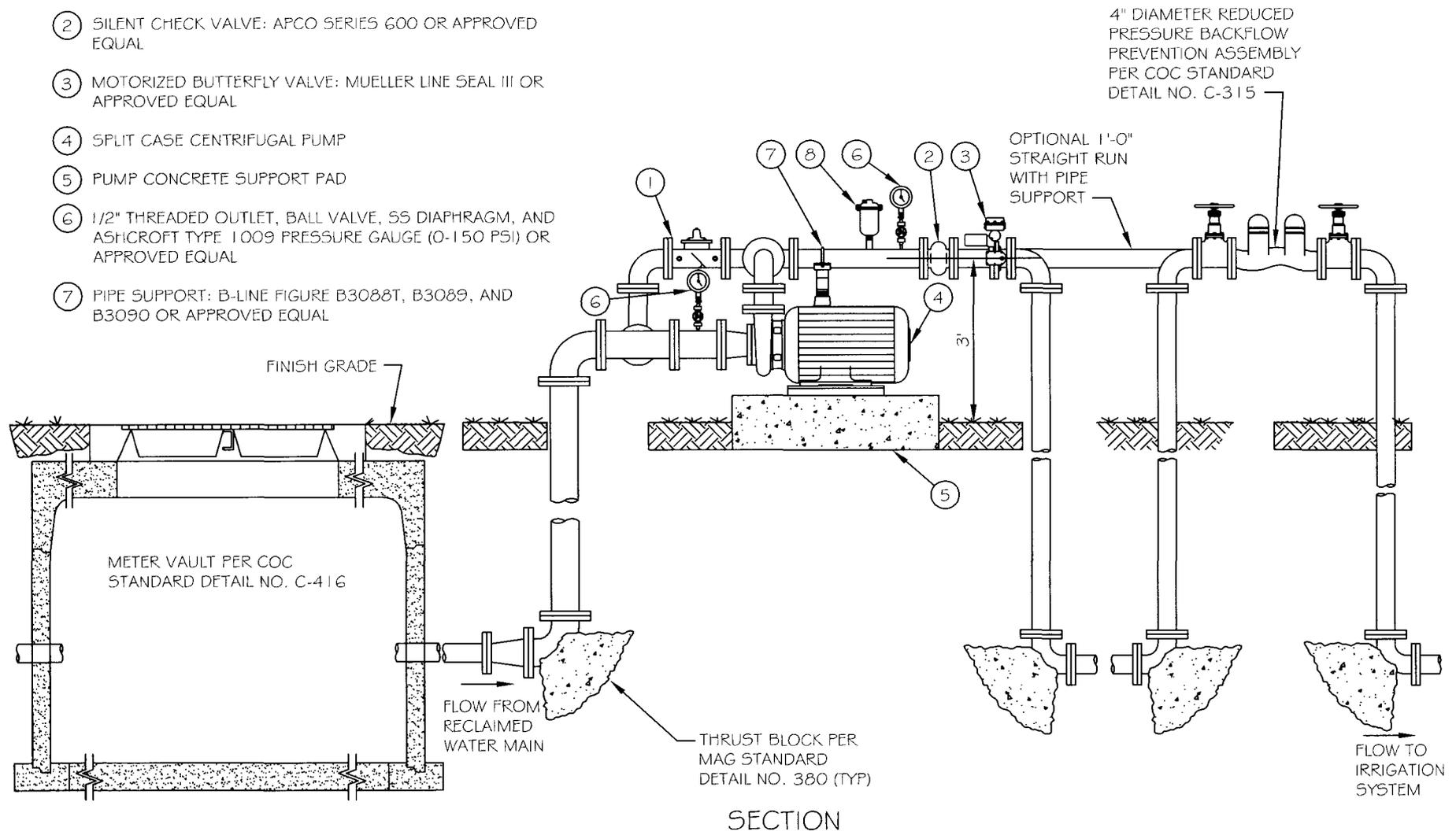
**3" RECLAIMED WATER
IRRIGATION SERVICE LINE
INLINE PUMP TYPE**

APPROVED: _____
CITY ENGINEER
DATE: _____

DETAIL NO.
C-404
PAGE 4 OF 12

- ① PRESSURE RELIEF VALVE: CLA VAL MODEL 50-01 OR APPROVED EQUAL
- ② SILENT CHECK VALVE: APCO SERIES 600 OR APPROVED EQUAL
- ③ MOTORIZED BUTTERFLY VALVE: MUELLER LINE SEAL III OR APPROVED EQUAL
- ④ SPLIT CASE CENTRIFUGAL PUMP
- ⑤ PUMP CONCRETE SUPPORT PAD
- ⑥ 1/2" THREADED OUTLET, BALL VALVE, SS DIAPHRAGM, AND ASHCROFT TYPE 1009 PRESSURE GAUGE (0-150 PSI) OR APPROVED EQUAL
- ⑦ PIPE SUPPORT: B-LINE FIGURE B3088T, B3089, AND B3090 OR APPROVED EQUAL

- ⑧ AIR RELEASE VALVE: APCO MODEL 50 WITH 1" THREADED INLET OR APPROVED EQUAL



4" DIAMETER REDUCED PRESSURE BACKFLOW PREVENTION ASSEMBLY PER COC STANDARD DETAIL NO. C-315

OPTIONAL 1'-0" STRAIGHT RUN WITH PIPE SUPPORT

SECTION

DETAIL NO.
C-404
PAGE 6 OF 12

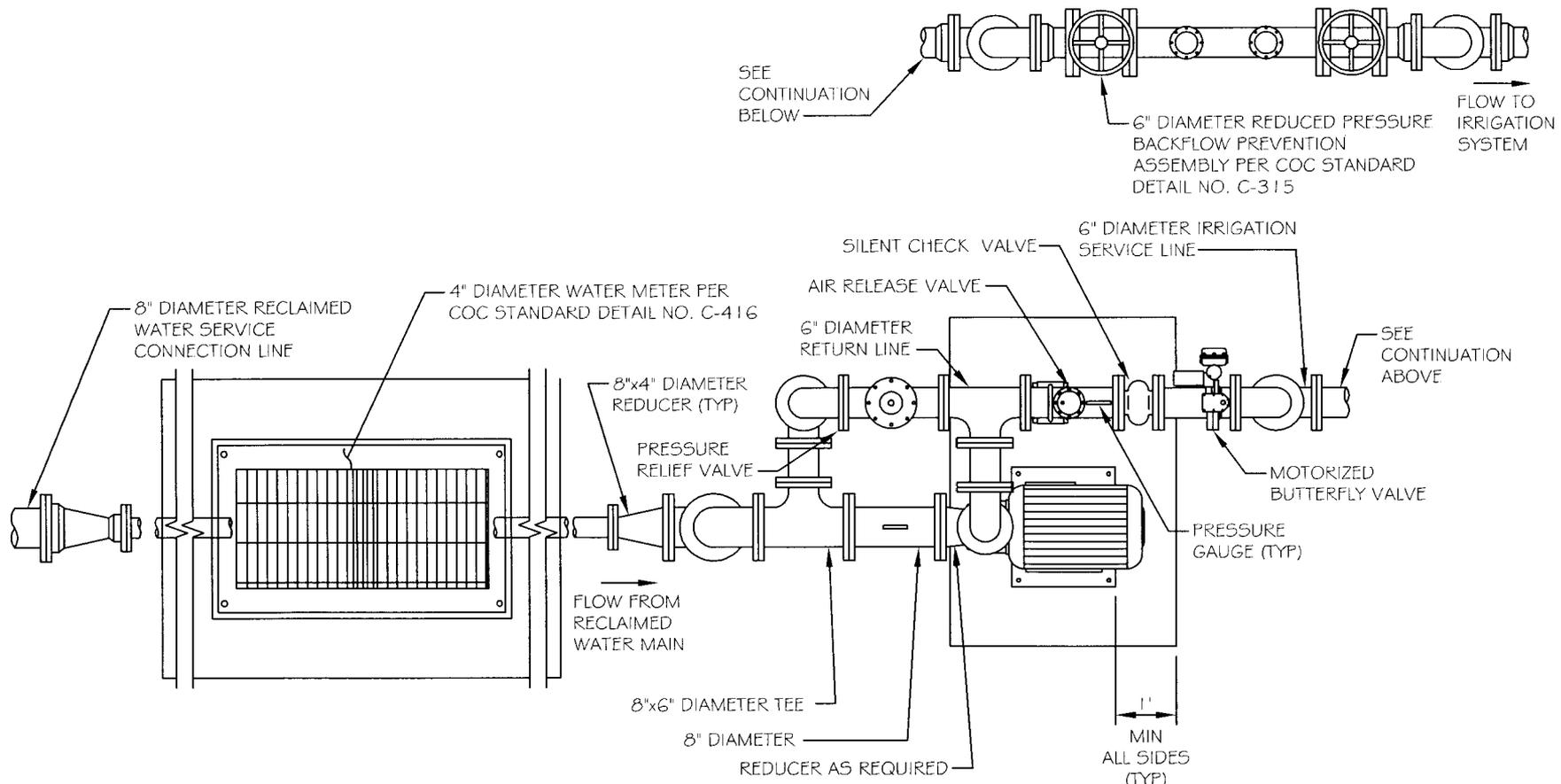


CITY OF
CHANDLER
STANDARD
DETAIL

**4" RECLAIMED WATER
IRRIGATION SERVICE LINE
INLINE PUMP TYPE**

APPROVED: _____
CITY ENGINEER
DATE: _____

DETAIL NO.
C-404
PAGE 6 OF 12



PLAN

NOTES:

1. ALL PIPING SHALL BE DUCTILE IRON (DIP) AS SHOWN.
2. PRESSURE RELIEF VALVE SHALL BE SET AT 2 PSI ABOVE SPRINKLER DESIGN PRESSURE.
3. DEVELOPER SHALL PROVIDE UTILITY SERVICES TO FACILITY AS REQUIRED.
4. DEVELOPER MAY USE VARIABLE FREQUENCY DRIVE WITH PUMP IN LIEU OF RETURN LINE.
5. DEVELOPER SHALL INTERLOCK MOTORIZED BUTTERFLY VALVE TO OPEN/CLOSE ON PUMP START/STOP.

DETAIL NO. C-404 PAGE 7 OF 12	 CITY OF CHANDLER STANDARD DETAIL	6" RECLAIMED WATER IRRIGATION SERVICE LINE INLINE PUMP TYPE	APPROVED: _____ CITY ENGINEER DATE: _____	DETAIL NO. C-404 PAGE 7 OF 12
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① PRESSURE RELIEF VALVE: CLA VAL MODEL 50-01 OR APPROVED EQUAL

② SILENT CHECK VALVE: APCO SERIES 600 OR APPROVED EQUAL

③ MOTORIZED BUTTERFLY VALVE: MUELLER LINE SEAL III OR APPROVED EQUAL

④ SPLIT CASE CENTRIFUGAL PUMP

⑤ PUMP CONCRETE SUPPORT PAD

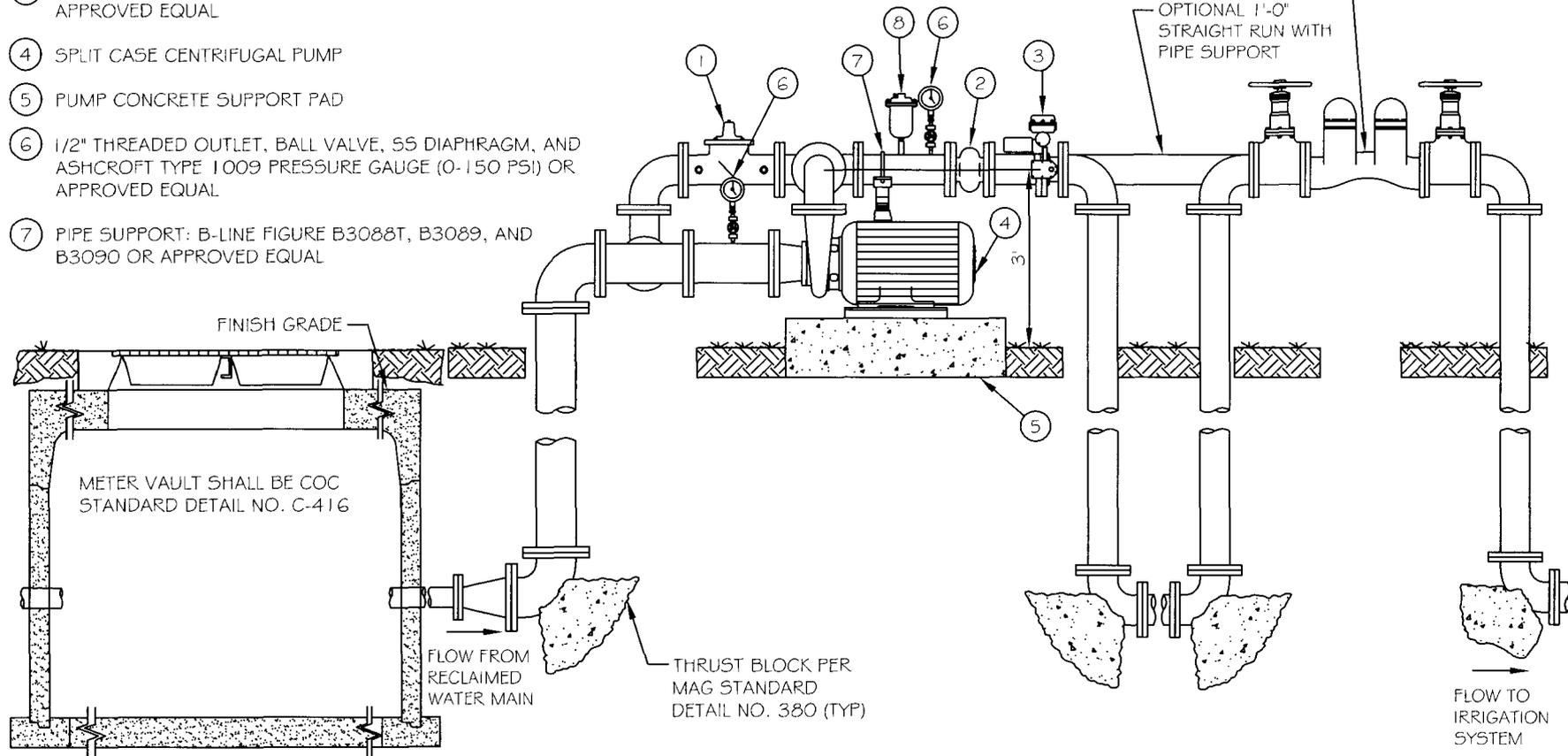
⑥ 1/2" THREADED OUTLET, BALL VALVE, 55 DIAPHRAGM, AND ASHCROFT TYPE 1009 PRESSURE GAUGE (0-150 PSI) OR APPROVED EQUAL

⑦ PIPE SUPPORT: B-LINE FIGURE B3088T, B3089, AND B3090 OR APPROVED EQUAL

⑧ AIR RELEASE VALVE: APCO MODEL 50 WITH 1" THREADED INLET OR APPROVED EQUAL

6" DIAMETER REDUCED PRESSURE BACKFLOW PREVENTION ASSEMBLY PER COC STANDARD DETAIL NO. C-315

OPTIONAL 1'-0" STRAIGHT RUN WITH PIPE SUPPORT



SECTION

DETAIL NO.

C-404

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CITY OF
CHANDLER
STANDARD
DETAIL

**6" RECLAIMED WATER
IRRIGATION SERVICE LINE
INLINE PUMP TYPE**

APPROVED: _____

CITY ENGINEER

DATE: _____

DETAIL NO.

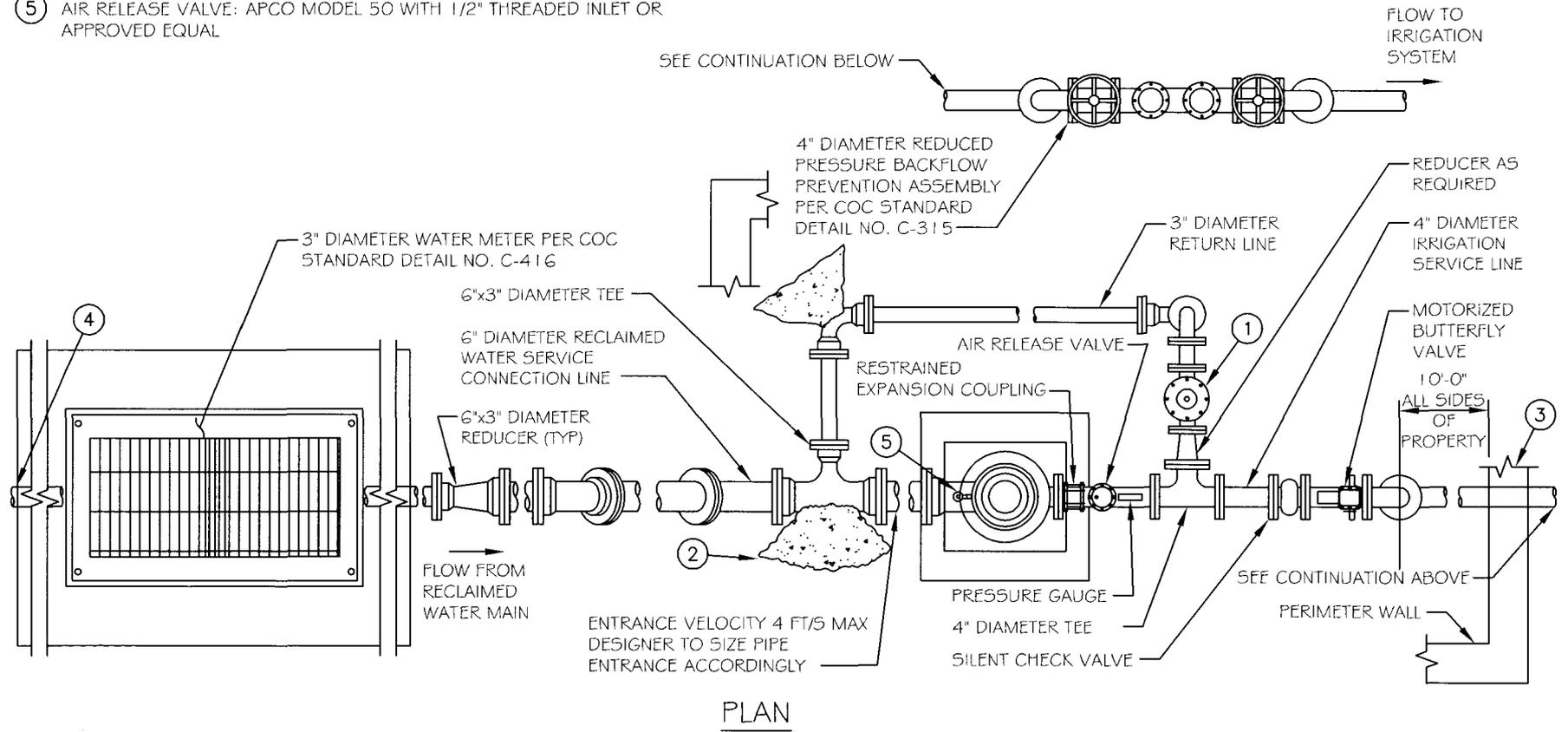
C-404

PAGE 8 OF 12

NOTES:

- ① PRESSURE RELIEF VALVE : CLA VAL MODEL 6506-01 B OR APPROVED EQUAL
- ② THRUST BLOCK PER MAG STANDARD DETAIL NO. 380 (TYP)
- ③ PROPERTY SHALL BE FENCED WITH 6 FOOT BLOCK WALL TO MATCH THE SURROUNDING WALL THEME
- ④ PROVIDE 6"x3" REDUCER FOR CONTINUATION OF INSTALLATION OF 6" DIAMETER WATER SERVICE CONNECTION LINE, REDUCER SHALL BE LOCATED 2'-0" MAX FROM METER VAULT
- ⑤ AIR RELEASE VALVE: APCO MODEL 50 WITH 1/2" THREADED INLET OR APPROVED EQUAL

- 1. PRESSURE RELIEF VALVE SHALL BE SET AT 2 PSI ABOVE SPRINKLER DESIGN PRESSURE.
- 2. DEVELOPER SHALL PROVIDE UTILITY SERVICES TO THE FACILITY AS REQUIRED.
- 3. DEVELOPER MAY USE VARIABLE FREQUENCY DRIVE WITH PUMP IN LIEU OF RETURN LINE.
- 4. DEVELOPER SHALL INTERLOCK MOTORIZED BUTTERFLY VALVE TO OPEN/CLOSE ON PUMP START/STOP.



PLAN

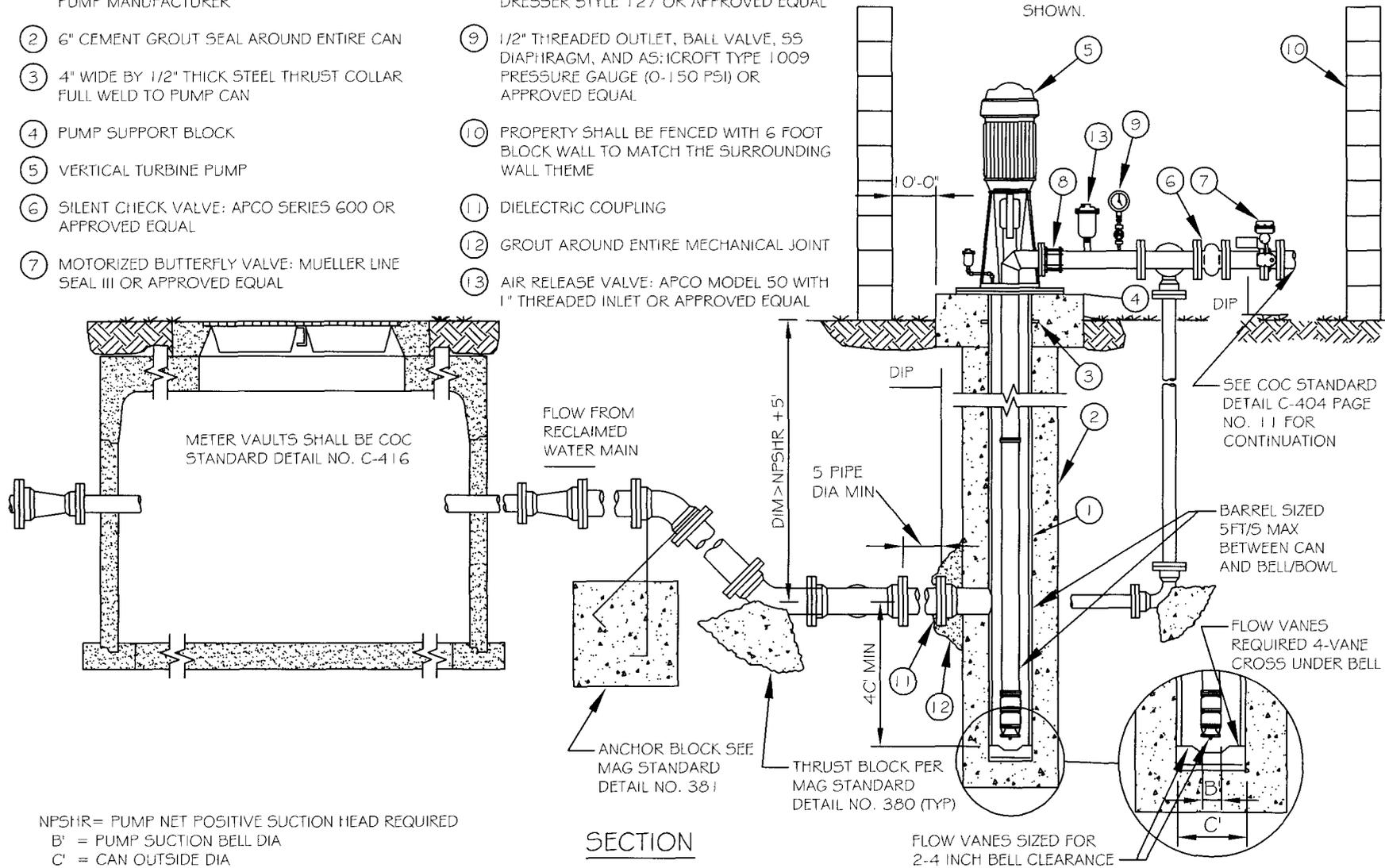
DETAIL NO. C-404 PAGE 9 OF 12	CITY OF CHANDLER STANDARD DETAIL	4" RECLAIMED WATER IRRIGATION SERVICE LINE CAN PUMP TYPE	APPROVED: _____ CITY ENGINEER DATE: _____	DETAIL NO. C-404 PAGE 9 OF 12
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- ① EPOXY LINED STEEL PUMP CAN, THICKNESS PER PUMP MANUFACTURER
- ② 6" CEMENT GROUT SEAL AROUND ENTIRE CAN
- ③ 4" WIDE BY 1/2" THICK STEEL THRUST COLLAR FULL WELD TO PUMP CAN
- ④ PUMP SUPPORT BLOCK
- ⑤ VERTICAL TURBINE PUMP
- ⑥ SILENT CHECK VALVE: APCO SERIES 600 OR APPROVED EQUAL
- ⑦ MOTORIZED BUTTERFLY VALVE: MUELLER LINE SEAL III OR APPROVED EQUAL

- ⑧ RESTRAINED EXPANSION COUPLING: DRESSER STYLE 127 OR APPROVED EQUAL
- ⑨ 1/2" THREADED OUTLET, BALL VALVE, SS DIAPHRAGM, AND ASICROFT TYPE 1009 PRESSURE GAUGE (0-150 PSI) OR APPROVED EQUAL
- ⑩ PROPERTY SHALL BE FENCED WITH 6 FOOT BLOCK WALL TO MATCH THE SURROUNDING WALL THEME
- ⑪ DIELECTRIC COUPLING
- ⑫ GROUT AROUND ENTIRE MECHANICAL JOINT
- ⑬ AIR RELEASE VALVE: APCO MODEL 50 WITH 1" THREADED INLET OR APPROVED EQUAL

NOTE:

1. ALL PIPING SHALL BE DUCTILE IRON (DIP) AS SHOWN.



NPSHR = PUMP NET POSITIVE SUCTION HEAD REQUIRED
 B' = PUMP SUCTION BELL DIA
 C' = CAN OUTSIDE DIA

SECTION

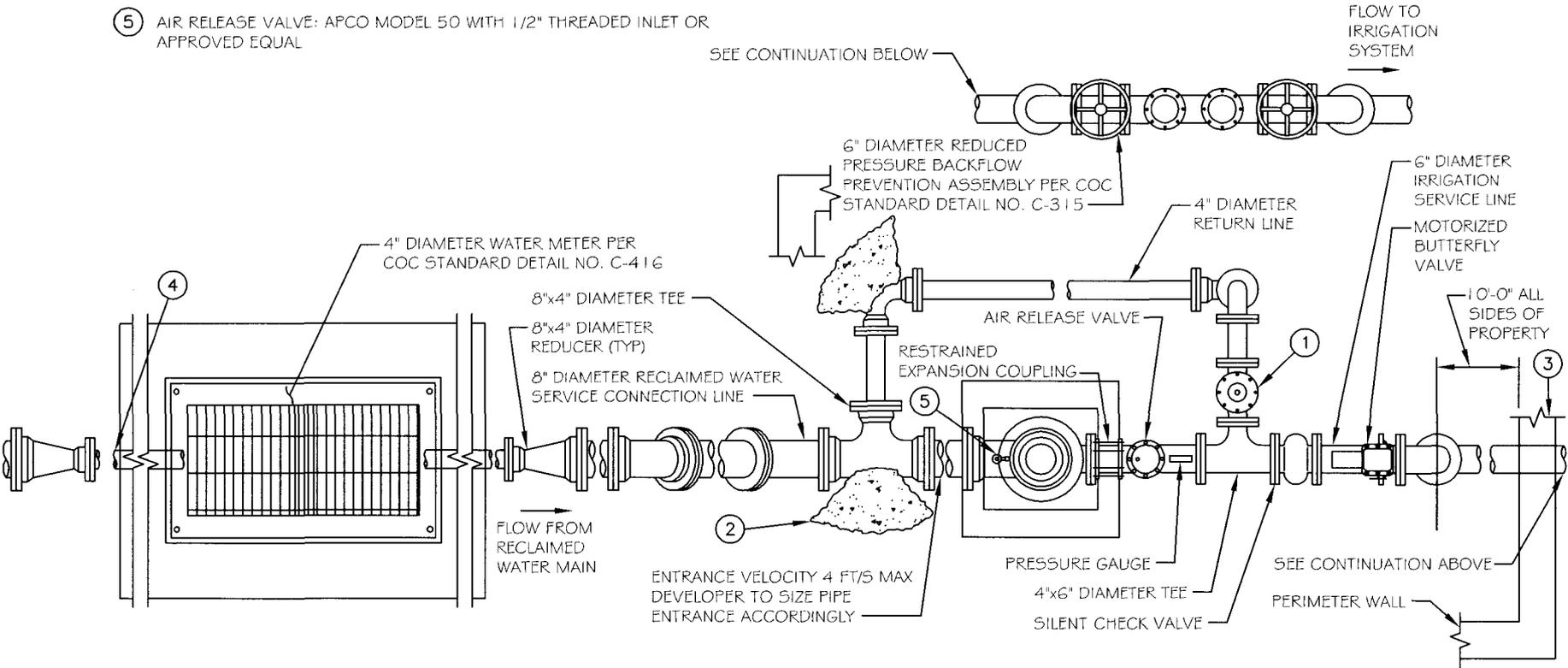
FLOW VANES SIZED FOR 2-4 INCH BELL CLEARANCE

DETAIL NO. C-404 PAGE 10 OF 12	 CITY OF CHANDLER STANDARD DETAIL	4" RECLAIMED WATER IRRIGATION SERVICE LINE CAN PUMP TYPE	APPROVED: _____ CITY ENGINEER DATE: _____	DETAIL NO. C-404 PAGE 10 OF 12
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NOTES:

- ① PRESSURE RELIEF VALVE - CLA VAL MODEL 6506-01B OR APPROVED EQUAL
- ② THRUST BLOCK PER MAG STANDARD DETAIL NO. 380 (TYP)
- ③ PROPERTY SHALL BE FENCED WITH 6 FOOT BLOCK WALL TO MATCH THE SURROUNDING WALL THEME
- ④ PROVIDE 8"x4" REDUCER FOR CONTINUATION OF INSTALLATION OF 8" DIAMETER WATER SERVICE CONNECTION LINE, REDUCER SHALL BE LOCATED 2' MAX FROM METER VAULT
- ⑤ AIR RELEASE VALVE: APCO MODEL 50 WITH 1/2" THREADED INLET OR APPROVED EQUAL

- 1. PRESSURE RELIEF VALVE SHALL BE SET AT 2 PSI ABOVE SPRINKLER DESIGN PRESSURE.
- 2. DEVELOPER SHALL PROVIDE UTILITY SERVICES TO THE FACILITY AS REQUIRED.
- 3. DEVELOPER MAY USE VARIABLE FREQUENCY DRIVE WITH PUMP IN LIEU OF RETURN LINE.
- 4. DEVELOPER SHALL INTERLOCK MOTORIZED BUTTERFLY VALVE TO OPEN/CLOSE ON PUMP START/STOP.



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CITY OF
CHANDLER
STANDARD
DETAIL

**6" RECLAIMED WATER
IRRIGATION SERVICE LINE
CAN PUMP TYPE**

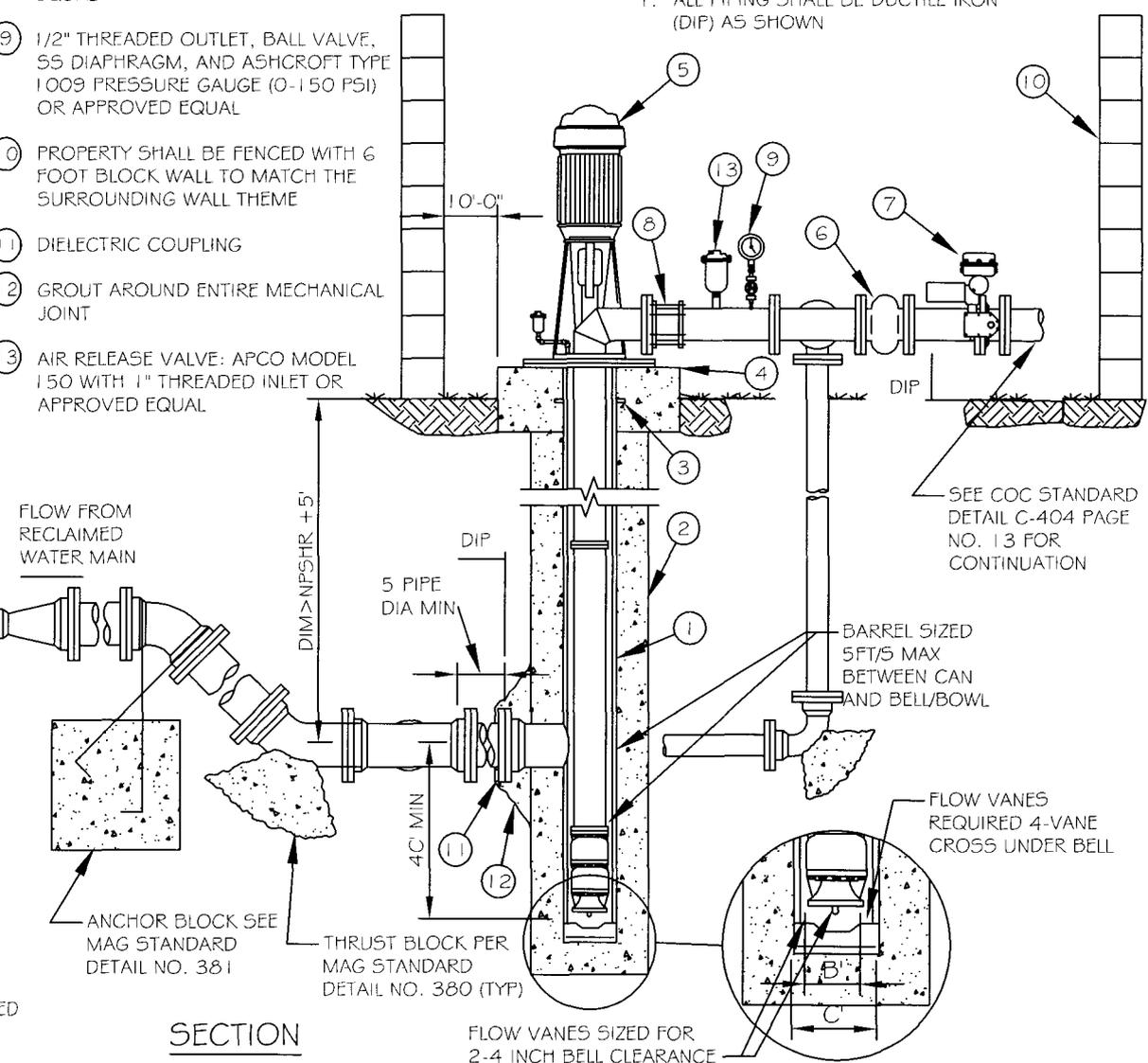
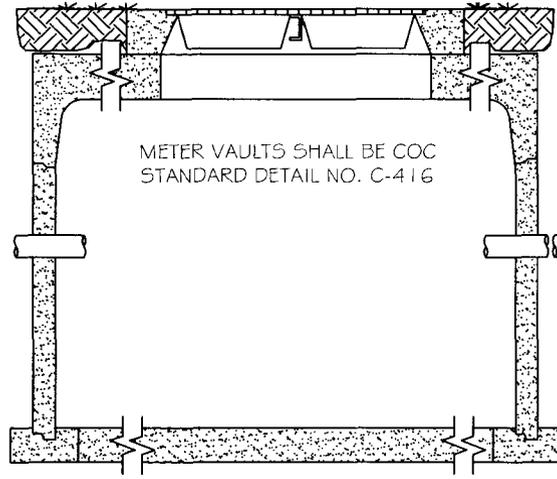
APPROVED: _____
CITY ENGINEER
DATE: _____

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- ① EPOXY LINED STEEL PUMP CAN. THICKNESS PER PUMP MANUFACTURER
- ② 6" CEMENT GROUT SEAL AROUND ENTIRE CAN
- ③ 4" WIDE BY 1/2" THICK STEEL THRUST COLLAR FULL WELD TO PUMP CAN
- ④ PUMP SUPPORT BLOCK
- ⑤ VERTICAL TURBINE PUMP
- ⑥ SILENT CHECK VALVE: APCO SERIES 600 OR APPROVED EQUAL
- ⑦ MOTORIZED BUTTERFLY VALVE: MUELLER LINE SEAL III OR APPROVED EQUAL

- ⑧ RESTRAINED EXPANSION COUPLING: DRESSER STYLE 127 OR APPROVED EQUAL
- ⑨ 1/2" THREADED OUTLET, BALL VALVE, 55 DIAPHRAGM, AND ASHCROFT TYPE 1009 PRESSURE GAUGE (0-150 PSI) OR APPROVED EQUAL
- ⑩ PROPERTY SHALL BE FENCED WITH 6 FOOT BLOCK WALL TO MATCH THE SURROUNDING WALL THEME
- ⑪ DIELECTRIC COUPLING
- ⑫ GROUT AROUND ENTIRE MECHANICAL JOINT
- ⑬ AIR RELEASE VALVE: APCO MODEL 150 WITH 1" THREADED INLET OR APPROVED EQUAL

NOTE:
1. ALL PIPING SHALL BE DUCTILE IRON (DIP) AS SHOWN



METER VAULTS SHALL BE COC STANDARD DETAIL NO. C-416

FLOW FROM RECLAIMED WATER MAIN

DIM > NPSHR + 5'

DIP

5 PIPE DIA MIN

4' MIN

DIP

BARREL SIZED 5FT/5 MAX BETWEEN CAN AND BELL/BOWL

FLOW VANES REQUIRED 4-VANE CROSS UNDER BELL

SEE COC STANDARD DETAIL C-404 PAGE NO. 13 FOR CONTINUATION

ANCHOR BLOCK SEE MAG STANDARD DETAIL NO. 381

THRUST BLOCK PER MAG STANDARD DETAIL NO. 380 (TYP)

SECTION

FLOW VANES SIZED FOR 2-4 INCH BELL CLEARANCE

NPSHR = PUMP NET POSITIVE SUCTION HEAD REQUIRED
B' = PUMP SUCTION BELL DIA
C' = CAN OUTSIDE DIA

DETAIL NO.
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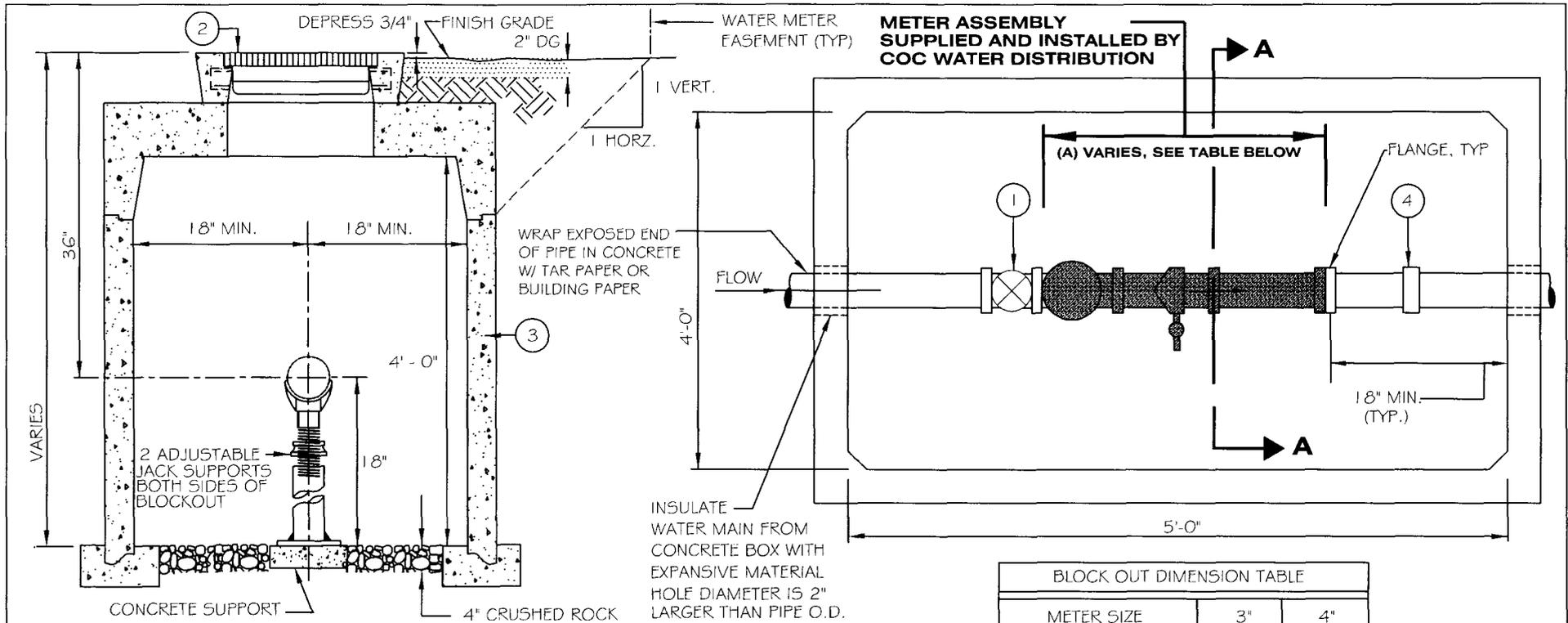


CITY OF
CHANDLER
STANDARD
DETAIL

**6" RECLAIMED WATER
IRRIGATION SERVICE LINE
CAN PUMP TYPE**

APPROVED: _____
CITY ENGINEER
DATE: _____

DETAIL NO.
C-404
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SECTION A-A

NOTES:

1. METER VAULTS MAY BE EITHER CAST-IN-PLACE OR PRE-CAST CONCRETE. SEE MAG STANDARD DETAIL 321 FOR VAULT CONSTRUCTION.
2. STAINLESS BOLTS AND NUTS REQUIRED FOR ENTIRE ASSEMBLY.
3. PIPE MAIN SHALL BE FULLY RESTRAINED BEYOND INLET AND OUTLET OF VAULT.
4. CONTRACTOR SHALL PROVIDE FLANGED SPOOL IN METER ASSEMBLY BLOCK-OUT TO PROVE CORRECT ALIGNMENT. SPOOL MAY BE SALVAGED AFTER METER INSTALLATION.
5. VAULT LID SHALL NOT BE INSTALLED UNTIL AFTER METER IS INSTALLED BY CITY. CALL (480) 782-3700.
6. CONTRACTOR SHALL DRILL 1-3/4" DIAMETER HOLE IN CENTER OF HATCH.

LEGEND:

1. O.S. # Y. GATE VALVE, FLANGED WITH HAND WHEEL OPEN LEFT, AND RISING STEM.
2. METER HATCH PER SYRACUSE CASTINGS "CH-AL" STYLE PEDESTRIAN RATED ALUMINUM WITH SLAM LOCK OR APPROVED EQUAL. CH-5AL 42" X 42"
3. METER VAULT PER UTILITY VAULT COC STANDARD DETAIL OR APPROVED EQUAL.
4. PROVIDE 1" TO 1-1/2" OF PLAY IN THE FLEX COUPLING - CAULDER OR EQUAL.

DETAIL NO. C-416 NTS	 CITY OF CHANDLER STANDARD DETAIL	3" AND 4" RECLAIMED WATER METER VAULT	APPROVED: _____ CITY ENGINEER DATE: _____	DETAIL NO. C-416 NTS
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