



W-1

SHEET 1 OF 1

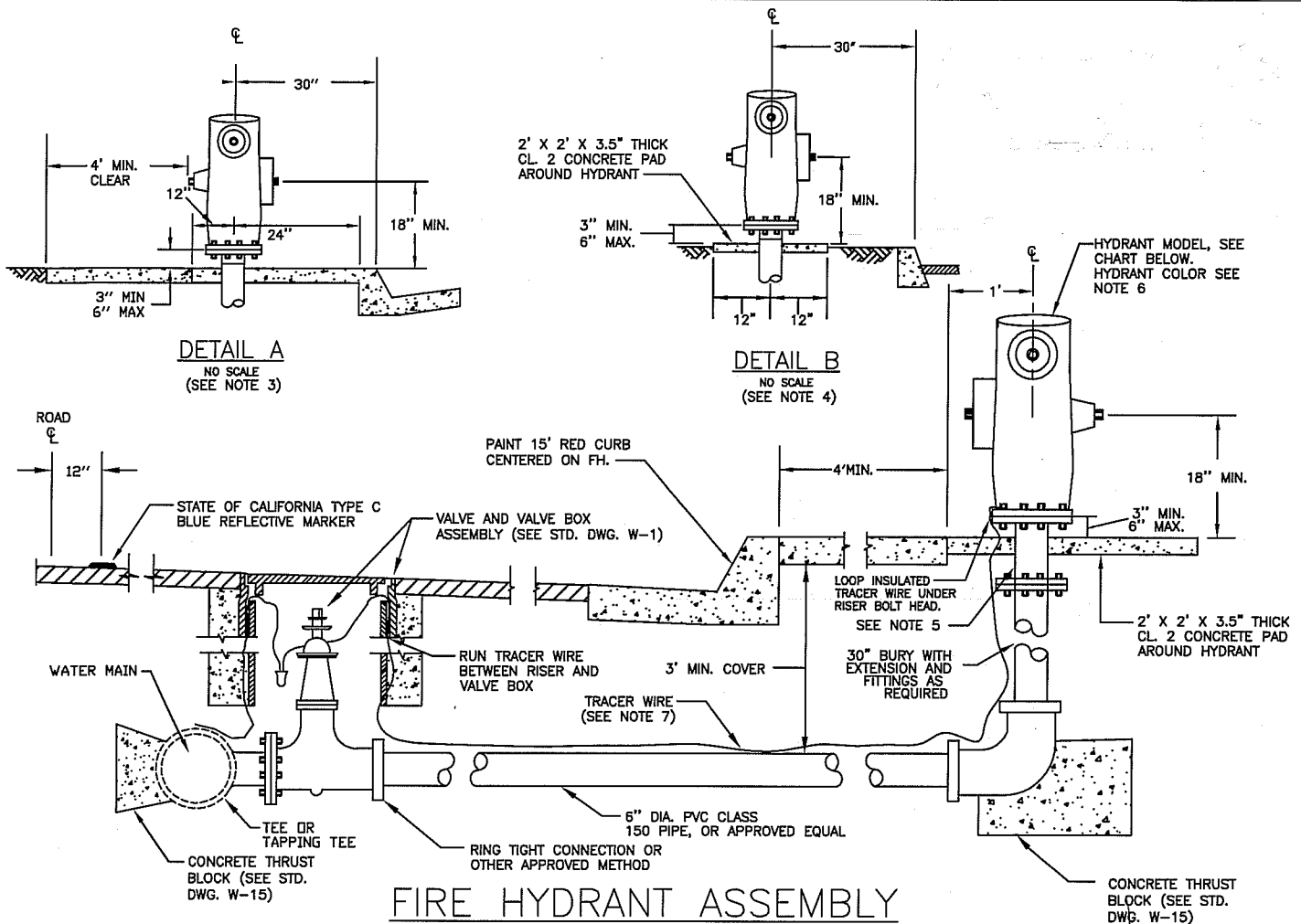
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NOTES

1. THE FIRE HYDRANT ASSEMBLY SHALL INCLUDE HYDRANT, 12" BREAK OFF RISER, EXTENSION, BURY, THRUST BLOCKS, GATE VALVE, VALVE BOX ASSEMBLY, PIPING, TEE, TRACER WIRE, AND ALL NECESSARY FITTINGS.

2. UNLESS OTHERWISE APPROVED BY THE CITY ENGINEER, INSTALLATION OF HYDRANTS ON EXISTING WATER MAINS WILL REQUIRE HOT TAPPING METHOD OF INSTALLATION. THE APPROPRIATE TAPPING TEE AND VALVE SHALL BE SUPPLIED AND INSTALLED BY THE CONTRACTOR.

3. THE FIRE HYDRANT SHALL BE INSTALLED AS SHOWN IN DETAIL "A" FOR FULL WIDTH SIDEWALK AREAS, OR AS APPROVED BY THE CITY ENGINEER. 4.5" OUTLET TO FACE STREET.

4. SEE DETAIL "B" FOR INSTALLATION IN PLANTER AREAS, MUST BE APPROVED BY CITY ENGINEER. 4.5" OUTLET TO FACE ACCESS WAY.

5. RESIDENTIAL FIRE HYDRANTS SHALL BE INSTALLED WITH A 12" BREAK OFF RISER AND ATTACHED TO THE RISER WITH DOWNWARD FACING HOLLOW BOLTS IN ACCORDANCE WITH THE MANUFACTURER'S SPECIFICATIONS.

6. HYDRANT SHALL BE PAINTED SAFETY YELLOW WITH SAFETY BLUE CAPS.

7. TRACER WIRE SHALL BE #10 STRANDED COPPER, WHITE INSULATION. PROVIDE MIN. 12" LEAD INSIDE OF VALVE BOX.

CITY APPROVED RESIDENTIAL FIRE HYDRANTS

REQUIRED OUTLETS	
1 EA. 2.5" OUTLET	JAMES JONES CO. MODEL J-4040A *
1 EA. 4.5" OUTLET	CLOW CORPORATION MODEL 950 *
	AMERICAN AVK MODEL 2470 *

* MIN. HYDRANT FLOW COEFFICIENT OF 0.9 ON ALL HYDRANT MODELS.



CITY OF CLOVIS

RESIDENTIAL FIRE HYDRANT

DWG NO.

W-2

REF. STD. SPECIFICATIONS
SECTION 66

APPROVED BY:

NO.

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BY

APPROVALS

SCALE: NTS

CITY ENGINEER

NO.

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APPROVALS

DRAWN BY: JA

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SHEET 1 OF 1

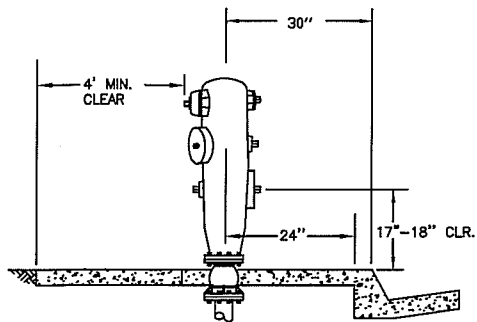
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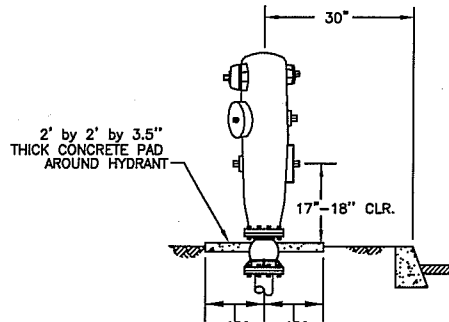
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FIRE **GS**

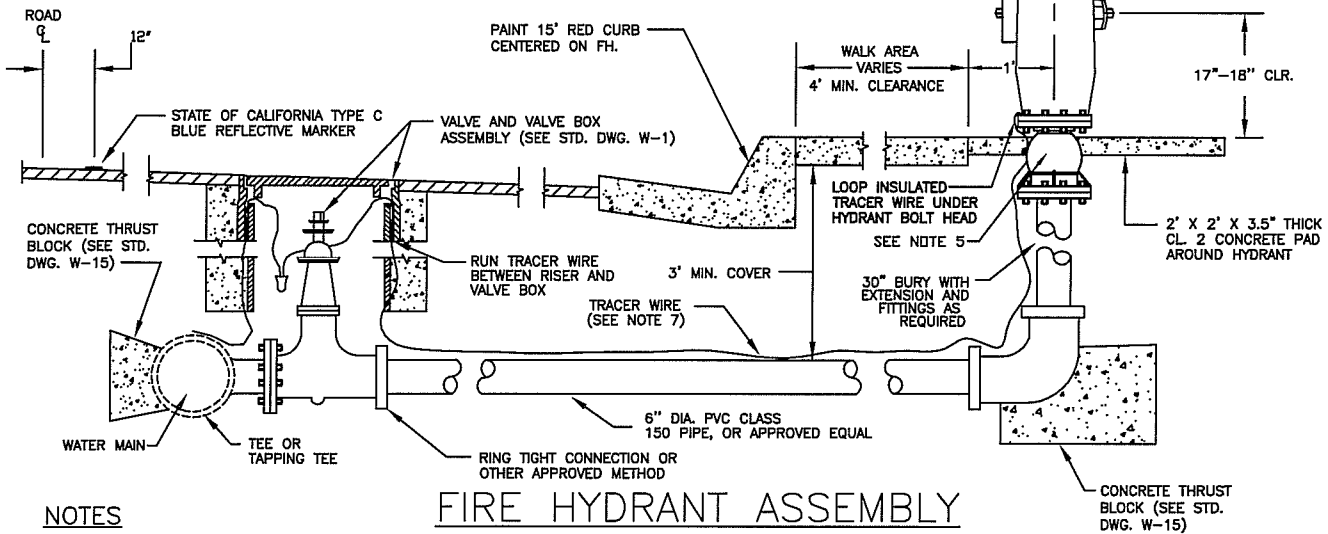
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DETAIL A
NO SCALE
(SEE NOTE 3)



DETAIL B
NO SCALE
(SEE NOTE 4)



NOTES

FIRE HYDRANT ASSEMBLY

1. THE FIRE HYDRANT ASSEMBLY SHALL INCLUDE HYDRANT BREAK OFF CHECK VALVE, EXTENSION, BURY, THRUST BLOCKS, GATE VALVE, VALVE BOX ASSEMBLY, PIPING, TEE, TRACER WIRE, AND ALL NECESSARY FITTINGS.
2. UNLESS OTHERWISE APPROVED BY THE CITY ENGINEER, INSTALLATION OF HYDRANTS ON EXISTING WATER MAINS WILL REQUIRE HOT TAPPING METHOD OF INSTALLATION. THE APPROPRIATE TAPPING TEE AND VALVE SHALL BE SUPPLIED AND INSTALLED BY THE CONTRACTOR.
3. THE FIRE HYDRANT SHALL BE INSTALLED AS SHOWN IN DETAIL "A" FOR COMMERCIAL OR FULL WIDTH SIDEWALK AREAS. LOWER 4.5" OUTLET TO FACE STREET.
4. SEE DETAIL "B" FOR INSTALLATION IN PLANTER AREAS. LOWER 4.5" OUTLET TO FACE ACCESS WAY.
5. COMMERCIAL HYDRANTS TO BE INSTALLED WITH A BREAK OFF CHECK VALVE ATTACHED WITH SOLID BOLTS, AVK MODEL 24-150-88-90, CLOW MODEL LBI 400.
6. HYDRANT SHALL BE PAINTED SAFETY YELLOW WITH SAFETY BLUE CAPS.
7. TRACER WIRE SHALL BE #10 STRANDED COPPER, WHITE INSULATION. PROVIDE 12" LEAD INSIDE OF VALVE BOX.

CITY APPROVED COMMERCIAL FIRE HYDRANTS

REQUIRED OUTLETS		
1 EA. 2.5" OUTLET	JAMES JONES CO. MODEL J-3770	*
2 EA. 4.5" OUTLET	CLOW CORPORATION MODEL 865	*
	AMERICAN AVK MODEL 2420	*

* MIN. HYDRANT FLOW COEFFICIENT
OF 0.9 ON ALL MODELS.



CITY OF CLOVIS

COMMERCIAL FIRE HYDRANT

DWG NO.

W-2A

REF. STD. SPECIFICATIONS
SECTION 66

APPROVED BY:

CITY ENGINEER

DATE:

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SCALE: NTS

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FIRE GS

DRAWN BY: JA

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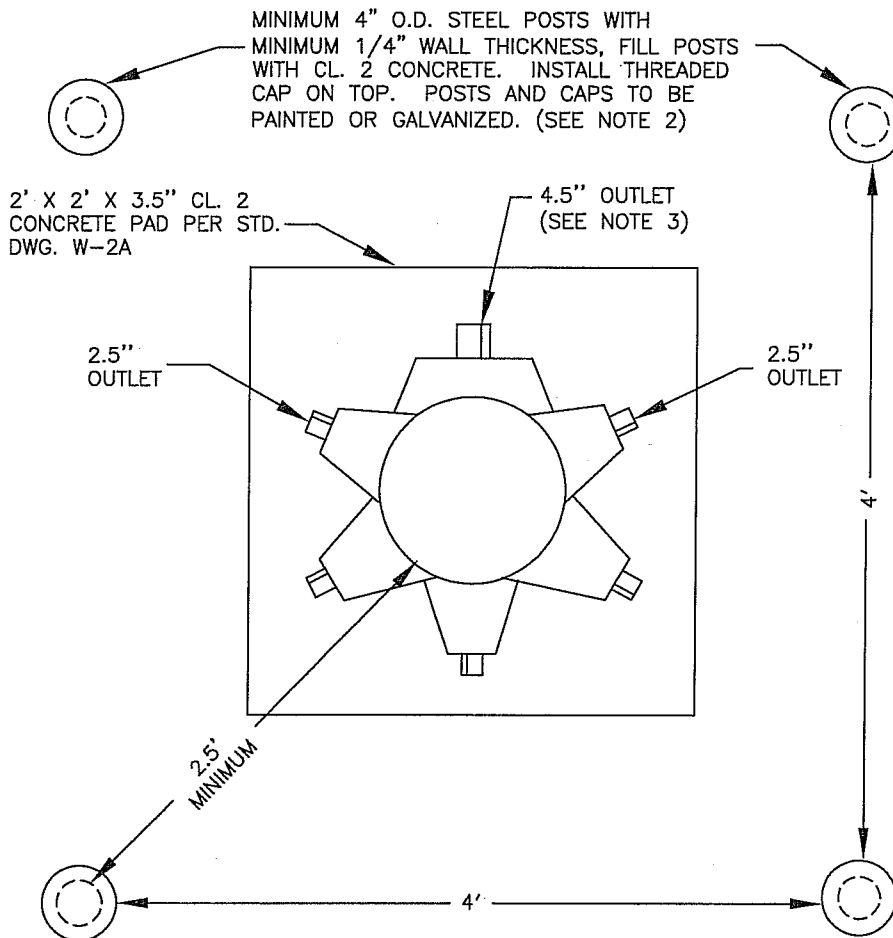
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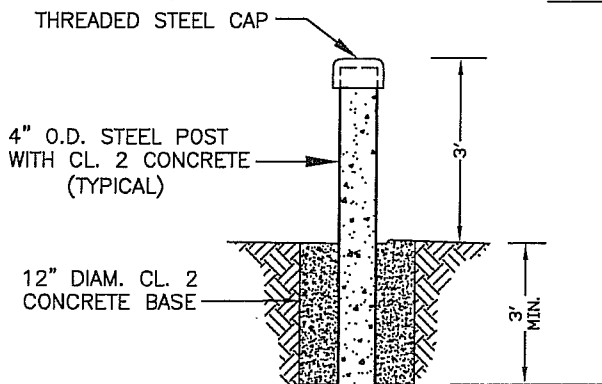
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PLAN VIEW - FIRE HYDRANT



PROTECTION POSTS (TYPICAL)

NOTES:

1. PROTECTION POST SHALL BE REQUIRED ON ALL FIRE HYDRANTS THAT ARE LOCATED IN OR ADJACENT TO DRIVEWAYS, PRIVATE ROADS, ALLEYS OR PARKING LOTS WHERE THERE IS NO CURB PROTECTION OR NATURAL PROTECTION, AND WHERE DEEMED NECESSARY BY THE FIRE DEPARTMENT, PUBLIC UTILITIES DEPARTMENT OR WHERE FIRE HYDRANTS ARE CONTINUOUSLY BEING DAMAGED BY VEHICLES.
2. IF GALVANIZED POST AND CAPS ARE NOT USED, THEY SHALL BE PAINTED WITH 2 COATS OF RUST PRIMER FOLLOWED BY 2 COATS OF RUSTOLEUM SAFETY YELLOW PAINT.
3. FOR ALL HYDRANTS, THE 4.5" OUTLET SHALL FACE THE STREET, OR FACE THE ACCESS WAY FOR INTERIOR INSTALLATIONS.



CITY OF CLOVIS

FIRE HYDRANT PROTECTION POSTS

DWG NO.

W-3

REF. STD. SPECIFICATIONS
SECTION 66

APPROVED BY:

CITY ENGINEER

DATE:

1/20/10

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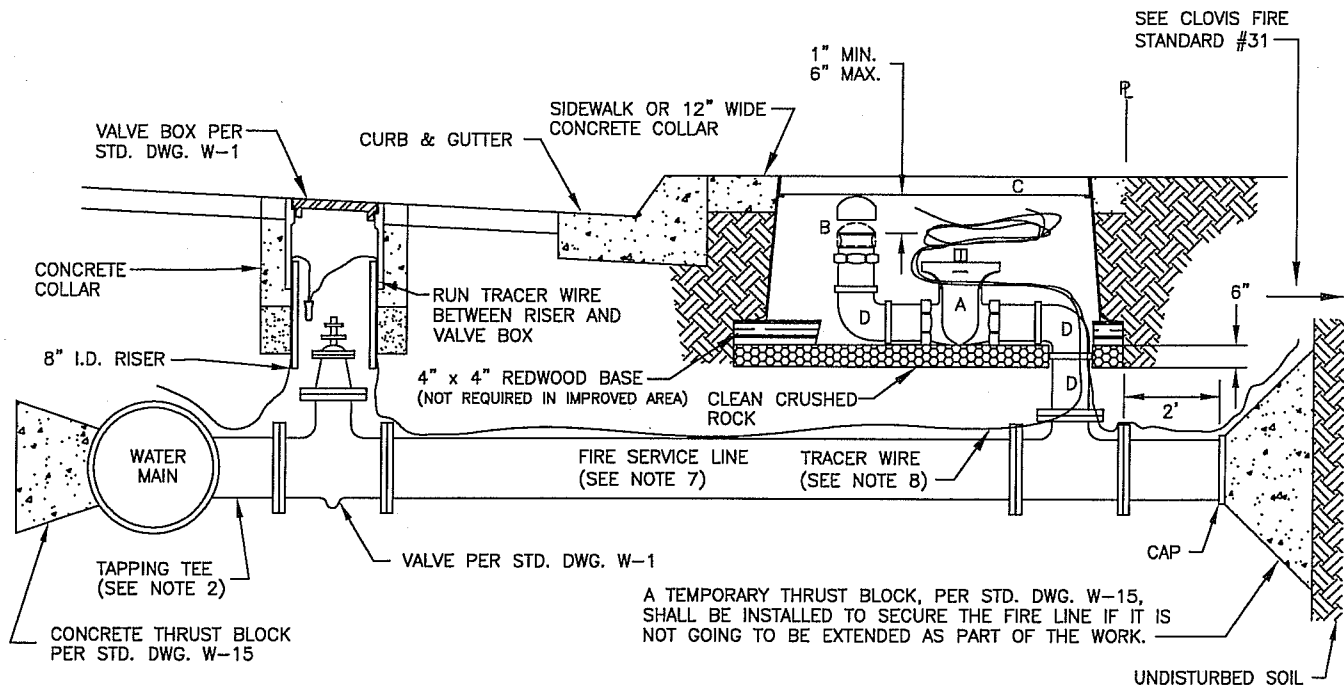
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FIRE TECH

SCALE: NTS

DRAWN BY: JA

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NOTES:

1. THE FIRE SERVICE LINE SHALL INCLUDE ALL PIPE, PIPE FITTINGS AND STRUCTURES NECESSARY FOR THE SYSTEM TO BE OPERABLE. THE SERVICE LINE SHALL INCLUDE ALL CONCRETE THRUST BLOCKS, TEE FITTINGS WITH APPROPRIATE CONNECTORS, GATE VALVE, VALVE BOX PER STD. DWG. W-1, AND FIRE SERVICE LINE PIPE CAPPED.
2. UNLESS OTHERWISE APPROVED BY THE CITY ENGINEER, THE INSTALLATION OF THE FIRE SERVICE LINE ON EXISTING WATER MAINS WILL REQUIRE THE HOT TAPPING METHOD. THE APPROPRIATE TAPPING TEE AND VALVE SHALL BE SUPPLIED AND INSTALLED BY THE CONTRACTOR.
3. THE FIRE LINE SHALL EXTEND 2' PAST PROPERTY LINE FOR ON-SITE ACCESS.
4. ON-SITE MATERIALS SHALL BE APPROVED BY THE FIRE MARSHALL.
5. CONTRACTOR SHALL FURNISH AND INSTALL ALL ITEMS LISTED IN LEGEND.
6. ALL INSTALLATIONS SHALL BE INSPECTED AND APPROVED BY CITY CONSTRUCTION INSPECTOR PRIOR TO POURING THRUST BLOCKS.
7. FIRE SERVICE LINE SHALL BE 4\" OR 6\" DIAMETER PVC CL 150 OR DUCTILE IRON AWWA C150 AS REQUIRED BY FIRE MARSHALL. PIPE MARKINGS TO BE VISIBLE FROM TOP OF OPEN TRENCH PRIOR TO BACKFILL.
8. TRACER WIRE SHALL BE #10 STRANDED COPPER, WHITE INSULATION., PROVIDE MINIMUM 12\" LEAD INSIDE VALVE BOX. TRACER WIRE RUN SHALL INCLUDE ALL FIRE SPRINKLER COMPONENTS AND TERMINATING AT RISER.

LEGEND:

- A. 4\" GATE VALVE w/2\" SQUARE METER WRENCH KEY FITTING.
- B. 4\" MALE QUICK-COUPLING HOSE ADAPTOR w/DUST CAP.
- C. CHRISTY FL 36 POLYMER BOX w/REINFORCED LID (OR APPROVED EQUAL) STAMPED \"FIRE SERVICE\".
- D. 4\" GALV. PIPE WRAPPED (BLOW OFF PIPE).



CITY OF CLOVIS

FIRE SERVICE LINE INSTALLATION

DWG NO.

W-4

REF. STD. SPECIFICATIONS
SECTION 66

APPROVED BY:

CITY ENGINEER

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11-23-09

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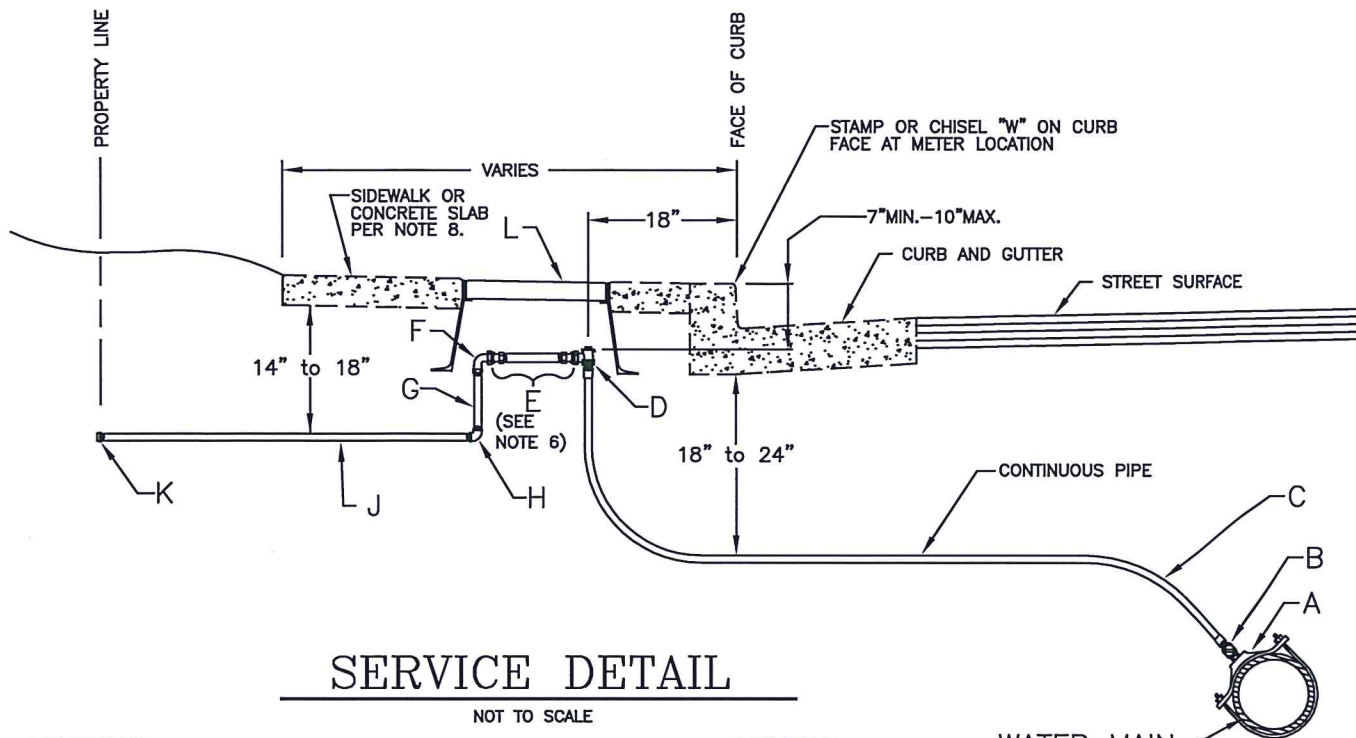
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LEGEND:

- A. USE DOUBLE STRAP STAINLESS STEEL BAND, CC AWWA TAPER THREAD, MUELLER DR25 SERIES, ROMAC 202S, SMITH BLAIR 317, OR EQUAL.
- B. 1" CORPORATION STOP, AWWA TAPER THREAD. MUELLER 300 110 B-25008N; AY McDONALD 74701 B Q; FORD NFB1000-4-Q. USE 1 1/4" CORPORATION STOP WHEN APPLICABLE. AY McDONALD 74701B-22Q, FORD NFB 1000-45-Q.
- C. 1" CONTINUOUS POLYETHYLENE COATED COPPER PIPE, TYPE "K" SOFT. MUELLER STREAMLINE OR APPROVED EQUAL FOR LENGTHS 40' OR GREATER, USE 1 1/4" CONTINUOUS POLYETHYLENE COATED COPPER PIPE, TYPE "K" SOFT. COLOR BLUE FOR POTABLE AND PURPLE FOR RECYCLED WATER.
- D. 1" GROUND KEY ANGLE VALVE METER STOP WITH RUBBER METER COUPLING WASHER. MUELLER H-14258 NL; FORD KV 43-444 WQ-NL; AY McDONALD 74602 Q. USE 1 1/4" X 1" NL ANGLE PLUG STYLE METER STOP WHEN APPLICABLE. AY McDONALD 74602-22, FORD KV43-454 WQ-NL.
- E. 10.75" SPACER ASSEMBLY, COMPOSED OF A 1" X 7.5" GALVANIZED NIPPLE INSTALLED LEVEL AND 2 METER ADAPTORS, A-24'S BRASS BUSHINGS OR PRE-APPROVED EQUAL.
- F. 1" BRASS QUARTER BEND METER COUPLING WITH RUBBER METER COUPLING WASHER. (FEMALE/FEMALE)
- G. 1" OR LARGER SCHEDULE 80 PVC PIPE. MUST BE VERTICAL. ANY CHANGES IN PIPE SIZE MUST BE DONE WITH SCHEDULE 80 OR STAINLESS STEEL FITTINGS.
- H. 1" OR LARGER 90° EL SCHEDULE 80 PVC.
- J. 1" OR LARGER SCHEDULE 80 PVC.
- K. 1" OR LARGER SCHEDULE 80 PVC COUPLING W/PVC PLUG OR CAP.
- L. CHRISTY FL9 OR B9 (OR PRE-APPROVED EQUAL) METERBOX AND REINFORCED CONCRETE LID WITH CAST IRON READING DOOR, B09G.

NOTES:

1. CONTRACTOR SHALL FURNISH AND INSTALL ALL ITEMS LISTED IN LEGEND.
2. WATER METER TO BE FURNISHED AND INSTALLED BY CITY AT THE OWNER'S EXPENSE.
3. WATER SERVICE AND METER BOX INSTALLATION SHALL BE INSPECTED AND APPROVED BY CITY PRIOR TO SIDEWALK INSTALLATION.
4. WATER SERVICES SHALL BE LOCATED A MINIMUM OF 3' OUTSIDE OF DRIVE APPROACH WINGS.
5. ALL MATERIALS SHALL BE AS NOTED OR CITY APPROVED EQUAL.
6. A CLEAR SPACE OF AT LEAST 3" SHALL BE MAINTAINED BETWEEN SPACER ASSEMBLY (E) AND TOP OF DIRT INSIDE BOX.
7. ALL METER BOXES IN DIRT OR LANDSCAPE AREAS SHALL BE SET IN A CONCRETE SLAB MEASURING AT LEAST 12" ON ALL SIDES, 3 1/2" THICK.
8. METER BOXES SHALL BE CLEARED OF ALL OTHER FACILITIES.
9. METER BOX SHALL BE CENTERED OVER SPACER ASSEMBLY.
10. SEE STANDARD W-5A FOR ADJACENT METER BOX PLACEMENT.
11. BRASS ANGLE VALVE, CORP STOP AND QUARTER BEND MUST BE COMPLIANT WITH AB 1953 "LEAD FREE".
12. IF THE WATER SERVICE INCLUDES A BACKFLOW DEVICE (SEE W-19), ITEMS G, H & J SHALL BE GALVANIZED STEEL PIPE DOUBLE WRAPPED IN 10 MIL TAPE.

WATER MAIN



CITY OF CLOVIS

1" WATER SERVICE

DWG NO.

W-5

REF. STANDARD SPECIFICATIONS

APPROVED BY:

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SCALE: NTS

CITY ENGINEER

DATE:

7/5/17

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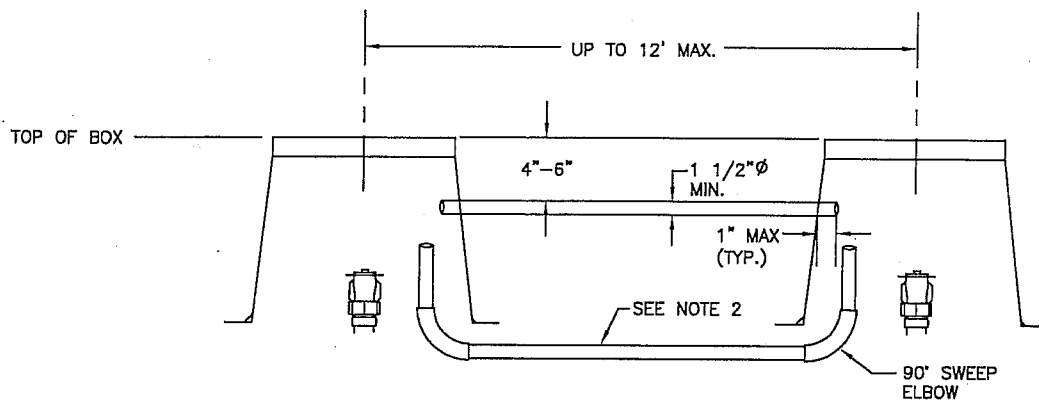
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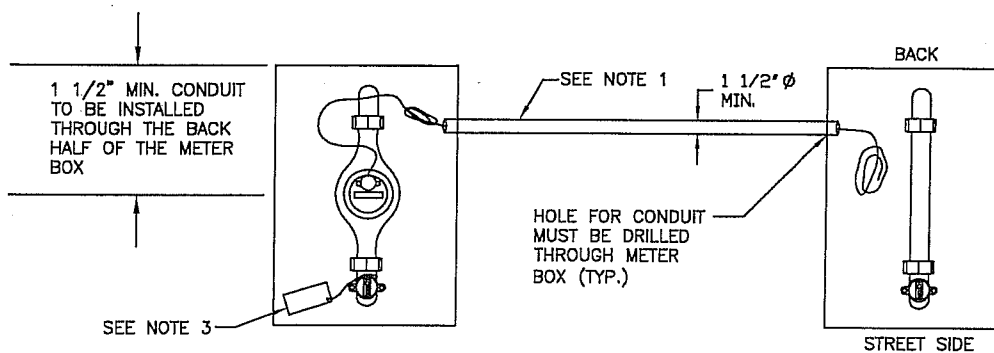
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FRONT VIEW



PLAN VIEW

NOTES:

1. INSTALL 1 1/2" MIN. SCH. 40 PVC CONDUIT BETWEEN ALL ADJACENT WATER SERVICE BOXES WHICH ARE 12' OR LESS APART.
2. OPTIONAL INSTALLATION TO ACCOMMODATE OTHER UTILITIES EXISTING BETWEEN BOXES.
3. ON COMMERCIAL METERS WIRE TIE BRASS TAG TO ANGLE STOP INDICATING ADDRESS NUMBER INCLUDING SUITE NUMBER.



CITY OF CLOVIS

ADJACENT METER BOX PLACEMENT

DWG NO.

W-5A

REF. STD. SPECIFICATIONS
SECTION 66

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SCALE: NTS

CITY ENGINEER

DATE:

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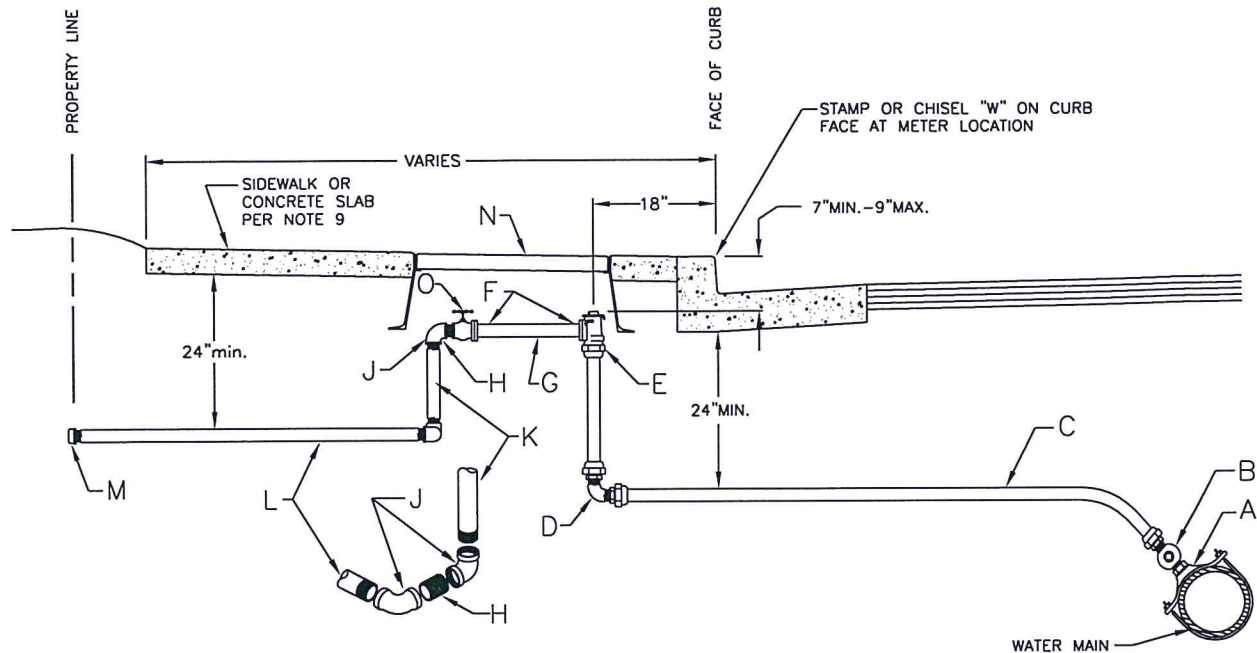
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SHEET 1 OF 1



SERVICE DETAIL

NOT TO SCALE

LEGEND:

- USE DOUBLE STRAP STAINLESS STEEL BAND, CC AWWA TAPER THREAD, MUELLER DR25 SERIES, ROMAC 202S, SMITH BLAIR 317, OR EQUAL.
- 2" CORPORATION STOP. MUELLER 110 COMPRESSION CONNECTION, MUELLER B-25008 N; AY McDONALD 74701BQ; FORD NFB1000-6Q, 7Q.
- 2" POLYETHYLENE COATED COPPER PIPE, TYPE "K" SOFT. MUELLER STREAMLINE OR APPROVED EQUAL. COLOR BLUE FOR POTABLE AND PURPLE FOR RECYCLED WATER.
- QUARTER BEND COUPLING, 2" MUELLER 110 COMPRESSION CONNECTION; MUELLER H-15526N, FORD NL44-77Q, AY McDONALD 74761Q.
- 2" FLANGED BALL ANGLE METER STOP ADAPTABLE TO EITHER 1-1/2" OR 2" FLANGE FITTING. MUELLER 110 COMPRESSION CONNECTION B24276N, AY McDONALD 74602BQ, FORD NBFA43-777WQ.
- GALVANIZED STEEL METER SPACER TWO-HOLE FLANGE W/ GASKET.
- METER SPACER 13-1/4" FOR 1-1/2" SERVICE, 17-1/4" FOR 2" SERVICE.
- SERVICE SIZE GALVANIZED CLOSE NIPPLE.
- SERVICE SIZE 90° GALVANIZED ELBOW.
- SERVICE SIZE 12" GALVANIZED RISER.
- SERVICE SIZE GALVANIZED PIPE.
- SERVICE SIZE GALVANIZED CAP (COUPLING W/PVC PLUG OR CAP).
- 17" X 30" METERBOX (CHRISTY FL 36 OR APPROVED EQUAL) WITH REINFORCED CONCRETE LID WITH CAST IRON READING DOOR, B36G.
- SERVICE SIZE GATE VALVE.

NOTES:

- CONTRACTOR SHALL FURNISH AND INSTALL ALL ITEMS LISTED IN LEGEND.
- WATER METER TO BE FURNISHED AND INSTALLED BY CITY AT THE OWNERS EXPENSE.
- WATER METER AND SERVICE BOX INSTALLATION SHALL BE INSPECTED AND APPROVED BY CITY PRIOR TO SIDEWALK INSTALLATION.
- WATER SERVICES SHALL BE LOCATED A MINIMUM OF 3 FEET OUTSIDE OF DRIVE APPROACH WINGS.
- ALL MATERIALS SHALL BE AS NOTED OR CITY APPROVED EQUAL.
- A CLEAR SPACE OF AT LEAST 3 INCHES SHALL BE MAINTAINED BETWEEN (H) SPACER SPOOL AND TOP OF DIRT INSIDE BOX.
- REFER TO STANDARD DRAWING W-6A FOR SERVICE DETAIL.
- ALL GALVANIZED PIPE AND FITTINGS SHALL BE DOUBLE WRAPPED WITH 10 MIL TAPE.
- ALL METER BOXES IN DIRT OR LANDSCAPE AREAS SHALL BE SET IN CONCRETE SLAB MEASURING AT LEAST 1' AROUND ALL SIDES OF BOX AND 3-1/2" THICK.
- METER BOXES SHALL BE CLEARED OF ALL OTHER FACILITIES.
- METER BOX SHALL BE CENTERED OVER SPACER ASSEMBLY.
- SEE W5-A FOR METER BOX PLACEMENT.
- BRASS ANGLE VALVE, CORP STOP AND QTR BEND MUST BE COMPLIANT WITH AB 1953 "LEAD FREE".



CITY OF CLOVIS

1 1/2" or 2" WATER SERVICE

DWG NO.

W-6

REF. STD. SPECIFICATIONS
SECTION 66

APPROVED BY:

CITY ENGINEER

DATE:

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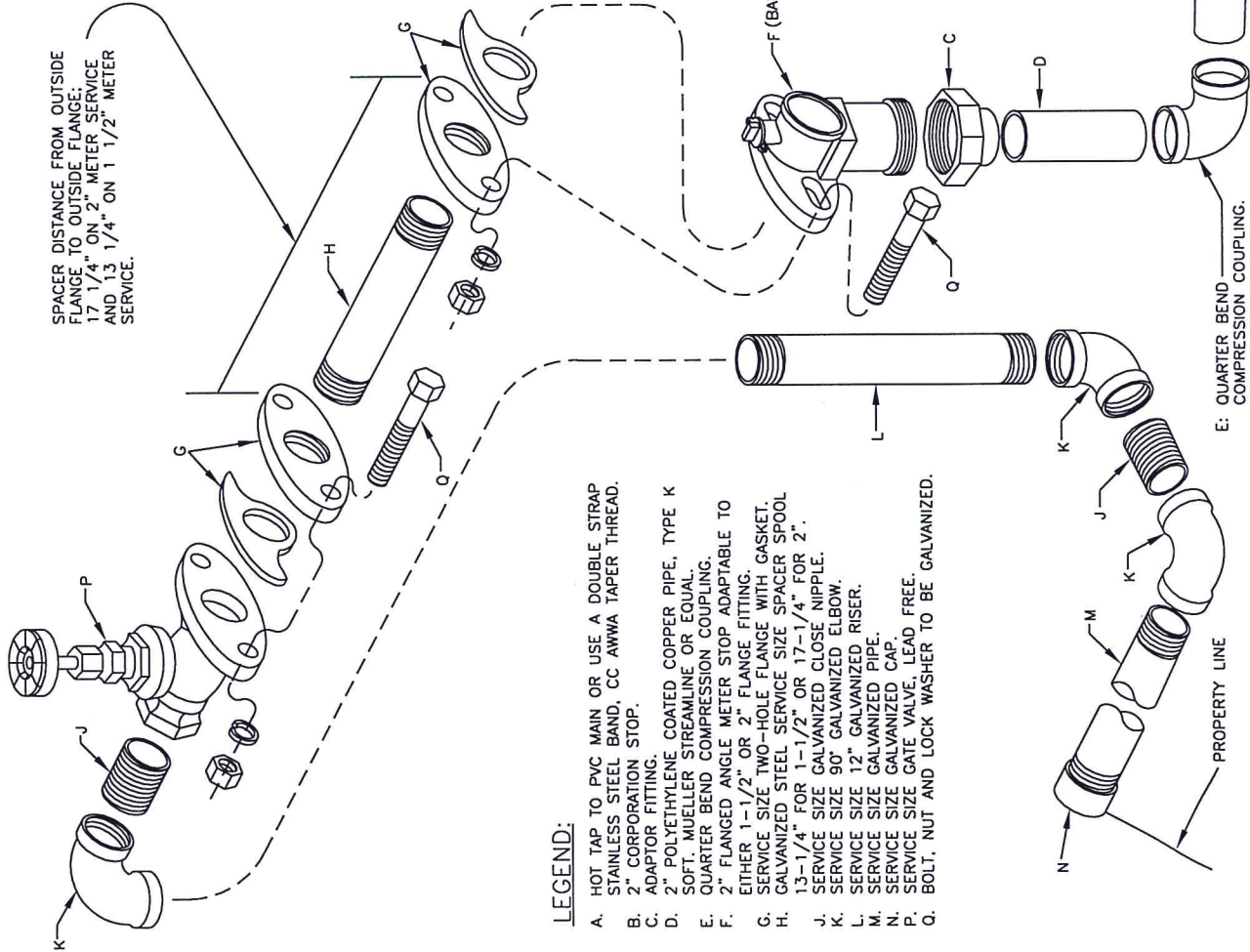
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NOTES:

1. CONTRACTOR SHALL FURNISH AND INSTALL ALL ITEMS LISTED IN LEGEND.
2. WATER METER TO BE FURNISHED AND INSTALLED BY CITY.
3. WATER SERVICE AND METER BOX INSTALLATION SHALL BE INSPECTED AND APPROVED BY CITY PRIOR TO SIDEWALK INSTALLATION.
4. NO WATER SERVICE IN DRIVEWAY APPROACH OR WING WILL BE ACCEPTED.
5. ALL MATERIALS FURNISHED SHALL BE AS NOTED, OR CITY APPROVED EQUAL.
6. WHERE LEGEND SPECIFIES A SIZE OF 1-1/2" OR 2", INSTALL SIZE TO MATCH DESIGNATED SERVICE SIZE, I.E., 1-1/2" OR 2" WATER SERVICE.
7. SEE STANDARD W-6 FOR SPECIFICATIONS.
8. ALL GALVANIZED PIPE AND FITTINGS SHALL BE DOUBLE WRAPPED WITH 10 MIL TAPE.

SPACER DISTANCE FROM OUTSIDE FLANGE TO OUTSIDE FLANGE: 17 1/4" ON 2" METER SERVICE AND 13 1/4" ON 1 1/2" METER SERVICE.



LEGEND:

- A. HOT TAP TO PVC MAIN OR USE A DOUBLE STRAP STAINLESS STEEL BAND, CC AWWA TAPER THREAD.
- B. 2" CORPORATION STOP.
- C. ADAPTOR FITTING.
- D. 2" POLYETHYLENE COATED COPPER PIPE, TYPE K SOFT. MUELLER STREAMLINE OR EQUAL.
- E. QUARTER BEND COMPRESSION COUPLING.
- F. 2" FLANGED ANGLE METER STOP ADAPTABLE TO EITHER 1-1/2" OR 2" FLANGE FITTING.
- G. SERVICE SIZE TWO-HOLE FLANGE WITH GASKET.
- H. GALVANIZED STEEL SERVICE SIZE SPACER SPOOL 13-1/4" FOR 1-1/2" OR 17-1/4" FOR 2".
- J. SERVICE SIZE GALVANIZED CLOSE NIPPLE.
- K. SERVICE SIZE 90° GALVANIZED ELBOW.
- L. SERVICE SIZE 12" GALVANIZED RISER.
- M. SERVICE SIZE GALVANIZED PIPE.
- N. SERVICE SIZE GALVANIZED CAP.
- P. SERVICE SIZE GATE VALVE, LEAD FREE.
- Q. BOLT, NUT AND LOCK WASHER TO BE GALVANIZED.

E: QUARTER BEND COMPRESSION COUPLING. (NOT REQUIRED ON ROLL TYPE COPPER AND POLY TUBING). AY McDonald 747610, FORD NL44-66Q, NL44-77Q, MUELLER H-15526N.

PROPERTY LINE



CITY OF CLOVIS

BLOWN-UP VIEW 1 1/2" or 2" WATER SERVICE

DWG NO.

W-6A

REF. STD. SPECIFICATIONS SECTION 66

APPROVED BY:

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DATE:

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SHEET 1 OF 1

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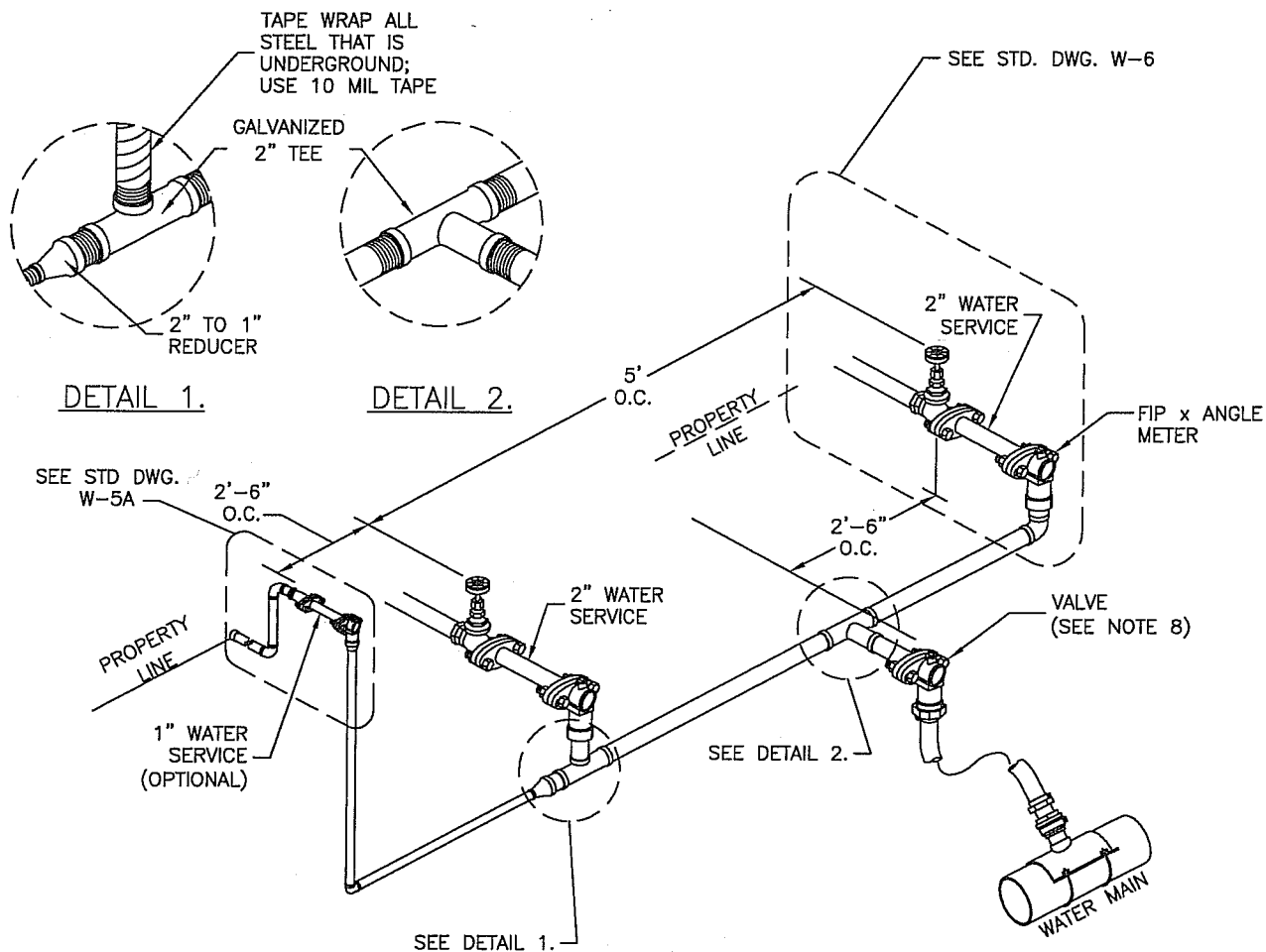
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NOTES:

1. CONTRACTOR SHALL FURNISH AND INSTALL ALL ITEMS AS APPROPRIATE AS LISTED ON STD. DWGS. W-5, W-5A, W-6, W-6A.
2. WATER METER TO BE FURNISHED AND INSTALLED BY CITY.
3. WATER SERVICE AND METER BOX INSTALLATION SHALL BE INSPECTED AND APPROVED BY CITY PRIOR TO SIDEWALK INSTALLATION.
4. NO WATER SERVICE IN DRIVEWAY APPROACH OR WING WILL BE ACCEPTED.
5. ALL MATERIALS FURNISHED SHALL BE AS NOTED, OR CITY APPROVED EQUAL.
6. SEE STD. DWGS. W-5 AND W-6, W-6A FOR SPECIFICATIONS.
7. ALL GALVANIZED PIPE AND FITTINGS SHALL BE WRAPPED AND FLETCHER COATED.
8. ANGLE METER STOP TO BE MUELLER 110 COMPRESSION B-24276N BALL VALVE OR CITY APPROVED EQUAL.
9. RETROFIT MANIFOLD REQUIRES PRIOR APPROVAL FROM PUBLIC UTILITIES DEPARTMENT.



CITY OF CLOVIS

1" & 2" COMMERCIAL RETROFIT MANIFOLD WATER SERVICE LAYOUT

DWG NO.

W-6B

REF. STD. SPECIFICATIONS
SECTION 66

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DATE:

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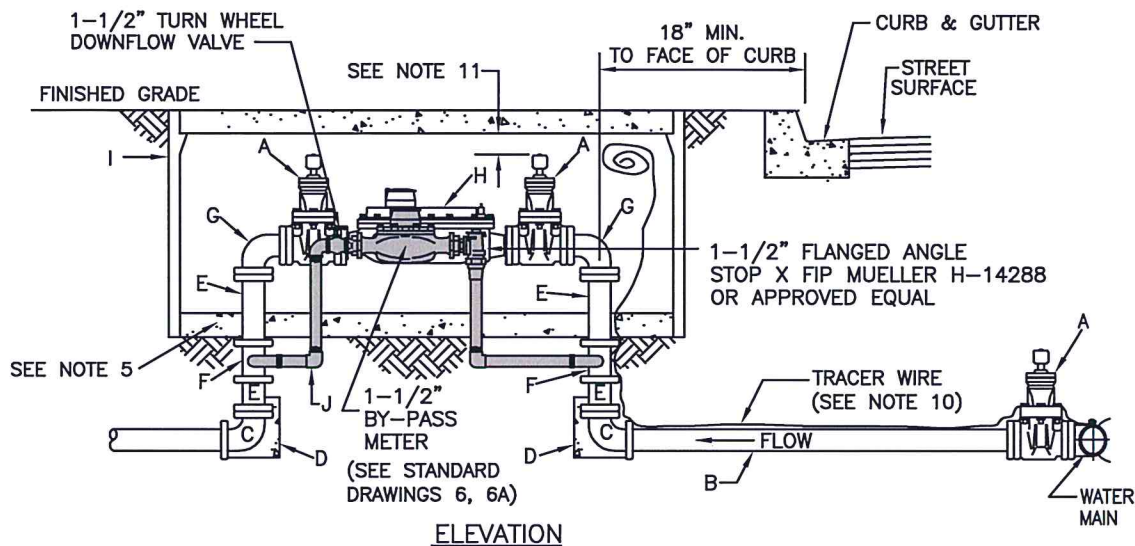
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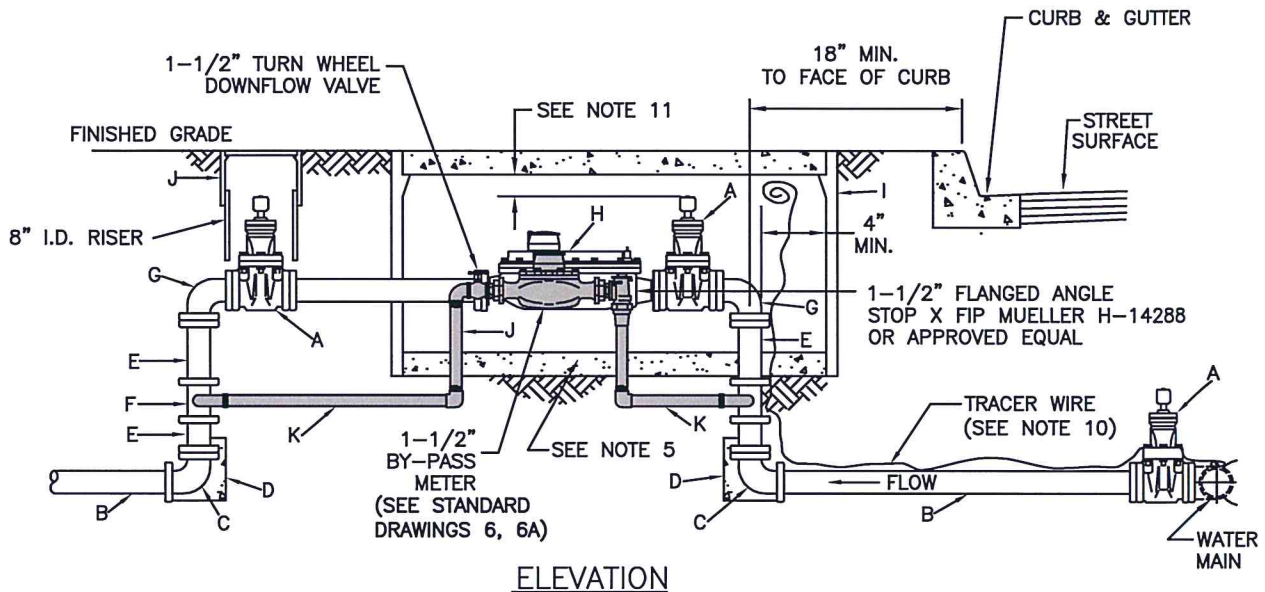
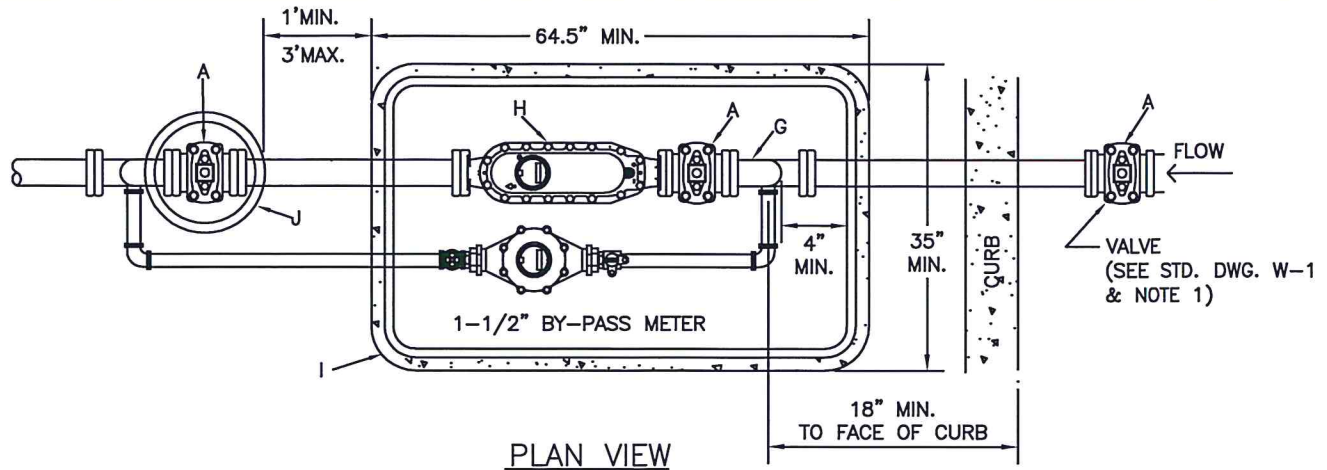
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LEGEND:

- A. 6" FLANGED GATE VALVE, CCW TO OPEN.
- B. 6" PVC C900 OR DUCTILE IRON PIPE CLASS 150 OR HIGHER.
- C. 6" DUCTILE IRON 90° FLANGE x MJ ELBOWS.
- D. THRUST BLOCK, SEE STD. DWG. W-15.
- E. 6" DUCTILE IRON FLANGED SPOOL, LENGTH AS NEEDED.
- F. 6"x6" DUCTILE IRON FLANGED TEE W/6"x 2" TAPPED BLIND FLANGE W/ REDUCER BUSHING.
- G. 6" DUCTILE IRON FLANGED ELBOW.
- H. FLANGED 6" METER W/STRAINER (SEE NOTE 7).
- I. CHRISTY B52 BOX & B52M3 LID, SIZED TO FIT.
- J. CHRISTY NO. G5 TRAFFIC BOX.
- K. GALVANIZED PIPE.

NOTES:

1. VALVES TO BE MUELLER A-2360 OR EQUAL WITH 2" SQUARE NUTS, CCW TO OPEN.
2. 1-1/2" BY-PASS TO BE LOCATED INSIDE METER BOX. (REFER TO STD. DWGS. W-6 & W-6A).
3. 1-1/2" BY-PASS INLET VALVE MUST BE A FLANGED ANGLE STOP PLUG OR BALL VALVE.
4. 1-1/2" BY-PASS DOWNFLOW VALVE MUST BE A BRASS RED & WHITE TURN WHEEL VALVE.
5. 6" SEAL/BENCH WITH CONCRETE INSIDE OF VAULTS.
6. METER BOX IN SIDEWALK OR PLACE 3-1/2" CL2 CONCRETE SLAB, 1' ON ALL SIDES OF BOX.
7. 24-1/4" GALVANIZED SPACER SHALL BE INSTALLED IN PLACE OF THE METER/ STRAINER (H).
8. DOUBLE WRAP ALL GALVANIZED PIPE THAT IS UNDERGROUND WITH 10 MIL TAPE.
9. CENTER METER ASSEMBLY IN BOX.
10. TRACER WIRE TO BE #10 STRANDED COPPER, WHITE INSULATION.
11. TOP OF OPERATIVE SQUARE NUT TO BE 4" MIN. TO 8" MAX. BELOW BOTTOM OF LID.



CITY OF CLOVIS

6" Compound Water Service

DWG NO.

W-9

REF. STD. SPECIFICATIONS
SECTION 66

SCALE: NTS

DRAWN BY: JA

SHEET 1 OF 1

APPROVED BY:

CITY ENGINEER

DATE:

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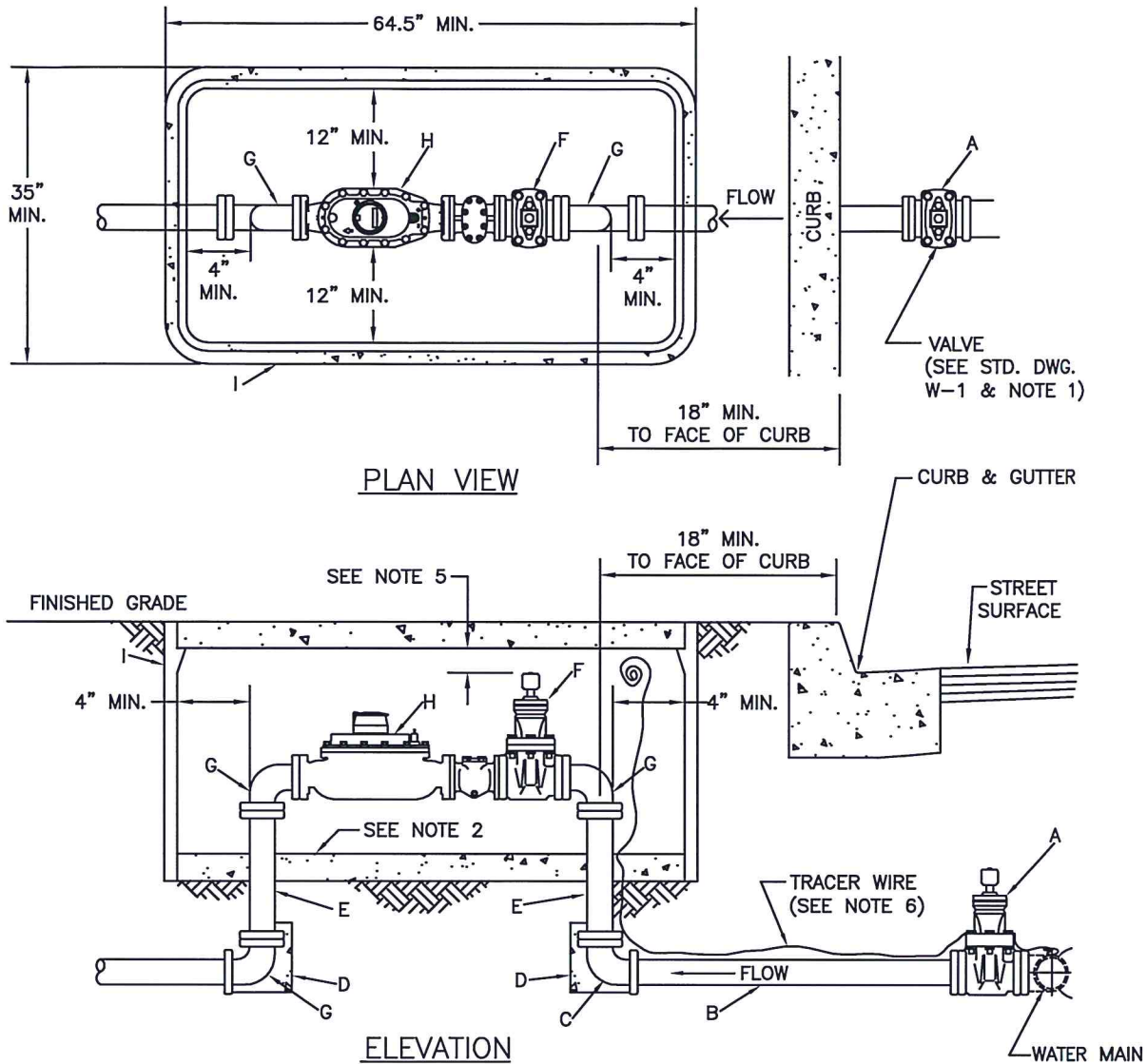
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LEGEND:

- A. 4" FLANGED GATE VALVE, CCW TO OPEN.
- B. 4" PVC C900 OR DUCTILE IRON PIPE CLASS 150 OR HIGHER.
- C. 4"x3" DUCTILE IRON FLANGED ELBOW.
- D. THRUST BLOCK 1.5 SQ. FT.
- E. 3" DUCTILE IRON FLANGED SPOOL, LENGTH AS NEEDED.
- F. 3" FLANGED GATE VALVE, CCW TO OPEN.
- G. 3" DUCTILE IRON FLANGED ELBOW.
- H. FLANGED 3" TURBO METER AND WATER METER STRAINER (SEE NOTE 4).
- I. CHRISTY B52 BOX & B52M3 LID, SIZED TO FIT.

NOTES:

1. VALVES TO BE MUELLER A-2360 OR EQUAL WITH 2" SQUARE NUTS, CCW TO OPEN.
2. 6" SEAL/BENCH WITH CONCRETE INSIDE OF VAULTS.
3. METER BOX IN SIDEWALK OR PLACE 3-1/2" THICK CL2 CONCRETE SLAB, 1' ON ALL SIDES OF BOX.
4. 19-1/4" GALVANIZED SPACER SHALL BE INSTALLED IN PLACE OF THE METER/ STRAINER (H).
5. TOP OF OPERATIVE SQUARE NUT TO BE 4" MIN. TO 12" MAX BELOW BOTTOM OF LID.
6. TRACER WIRE TO BE #10 STRANDED COPPER WITH WHITE INSULATION.



CITY OF CLOVIS

3" TURBO WATER SERVICE

DWG NO.

W-10

REF. STD. SPECIFICATIONS
SECTION 66

SCALE: NTS

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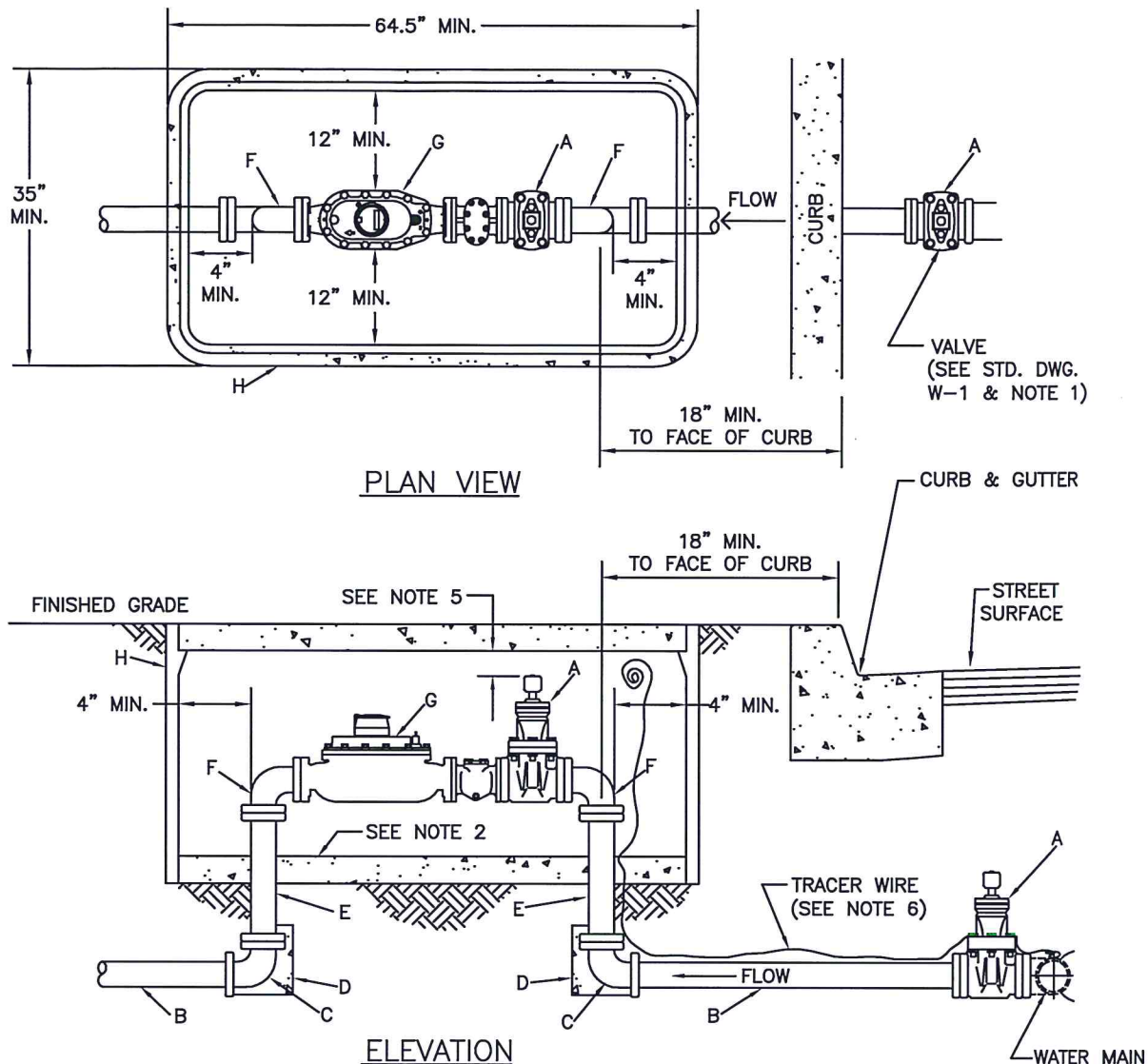
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LEGEND:

- A. 4" FLANGED GATE VALVE, CCW TO OPEN.
- B. 4" PVC C900 OR DUCTILE IRON PIPE CLASS 150 OR HIGHER.
- C. 4" DUCTILE IRON FLANGE x MJ ELBOW.
- D. THRUST BLOCK SEE STD. DWG. W-15.
- E. 4" DUCTILE IRON FLANGED SPOOL, LENGTH AS NEEDED.
- F. 4" DUCTILE IRON FLANGED ELBOW.
- G. FLANGED 4" TURBO METER AND WATER METER STRAINER (SEE NOTE 4).
- H. CHRISTY B52 BOX & B52M3 LID, SIZED TO FIT.

NOTES:

- 1. VALVES TO BE MUELLER A-2360 OR EQUAL WITH 2" SQUARE NUTS, CCW TO OPEN.
- 2. 6" SEAL/BENCH WITH CONCRETE INSIDE OF VAULTS.
- 3. METER BOX IN SIDEWALK OR PLACE 3-1/2" THICK CL2 CONCRETE SLAB, 1' ON ALL SIDES OF BOX.
- 4. 23-1/4" GALVANIZED SPACER SHALL BE INSTALLED IN PLACE OF THE METER/ STRAINER (F).
- 5. TOP OF OPERATIVE SQUARE NUT TO BE 4" MIN. TO 12" MAX BELOW BOTTOM OF LID.
- 6. TRACER WIRE TO BE #10 STRANDED COPPER WITH WHITE INSULATION.



CITY OF CLOVIS

4" TURBO WATER SERVICE

DWG NO.
W-11

REF. STD. SPECIFICATIONS
SECTION 66

APPROVED BY:

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SCALE: NTS

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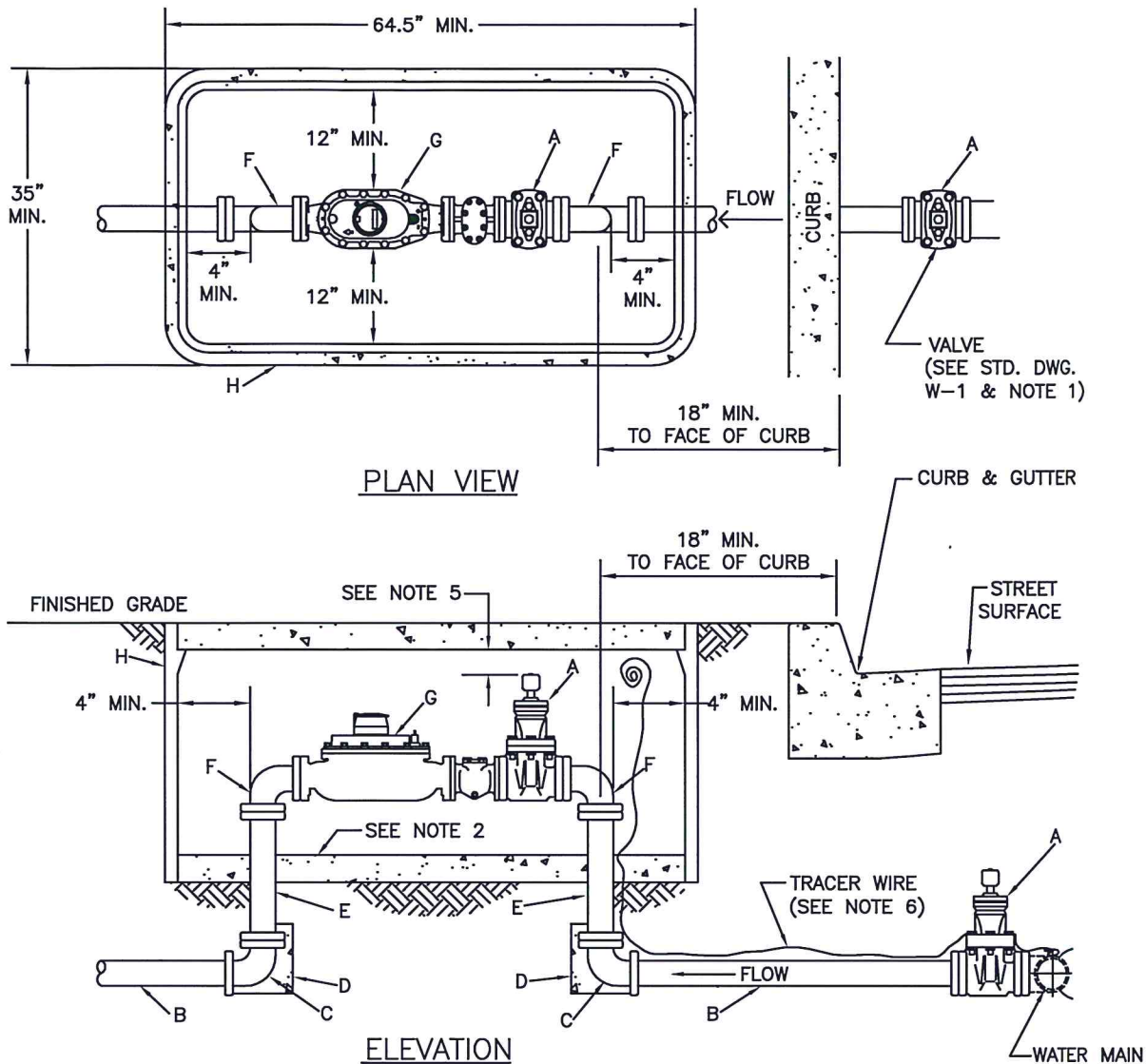
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LEGEND:

- A. 6" FLANGED GATE VALVE, CCW TO OPEN.
- B. 6" PVC C900 OR DUCTILE IRON PIPE CLASS 150 OR HIGHER.
- C. 6" DUCTILE IRON FLANGE x MJ ELBOW.
- D. THRUST BLOCK SEE STD. DWG. W-15.
- E. 6" DUCTILE IRON FLANGED SPOOL, LENGTH AS NEEDED.
- F. 6" DUCTILE IRON FLANGED ELBOW.
- G. FLANGED 6" TURBO METER AND WATER METER STRAINER (SEE NOTE 4).
- H. CHRISTY B52 BOX & B52M3 LID, SIZED TO FIT.

NOTES:

- 1. VALVES TO BE MUELLER A-2360 WITH 2" SQUARE NUTS, CCW TO OPEN.
- 2. 6" SEAL/BENCH WITH CONCRETE INSIDE OF VAULTS.
- 3. METER BOX IN SIDEWALK OR PLACE 3-1/2" THICK CL2 CONCRETE SLAB, 1' ON ALL SIDES OF BOX.
- 4. 27-1/4" GALVANIZED SPACER SHALL BE INSTALLED IN PLACE OF THE METER/ STRAINER (G).
- 5. TOP OF OPERATIVE SQUARE NUT TO BE 4" MIN. TO 12" MAX BELOW BOTTOM OF LID.
- 6. TRACER WIRE TO BE #10 STRANDED COPPER WITH WHITE INSULATION.



CITY OF CLOVIS

6" TURBO WATER SERVICE

DWG NO.
W-12

REF. STD. SPECIFICATIONS
SECTION 66

SCALE: NTS

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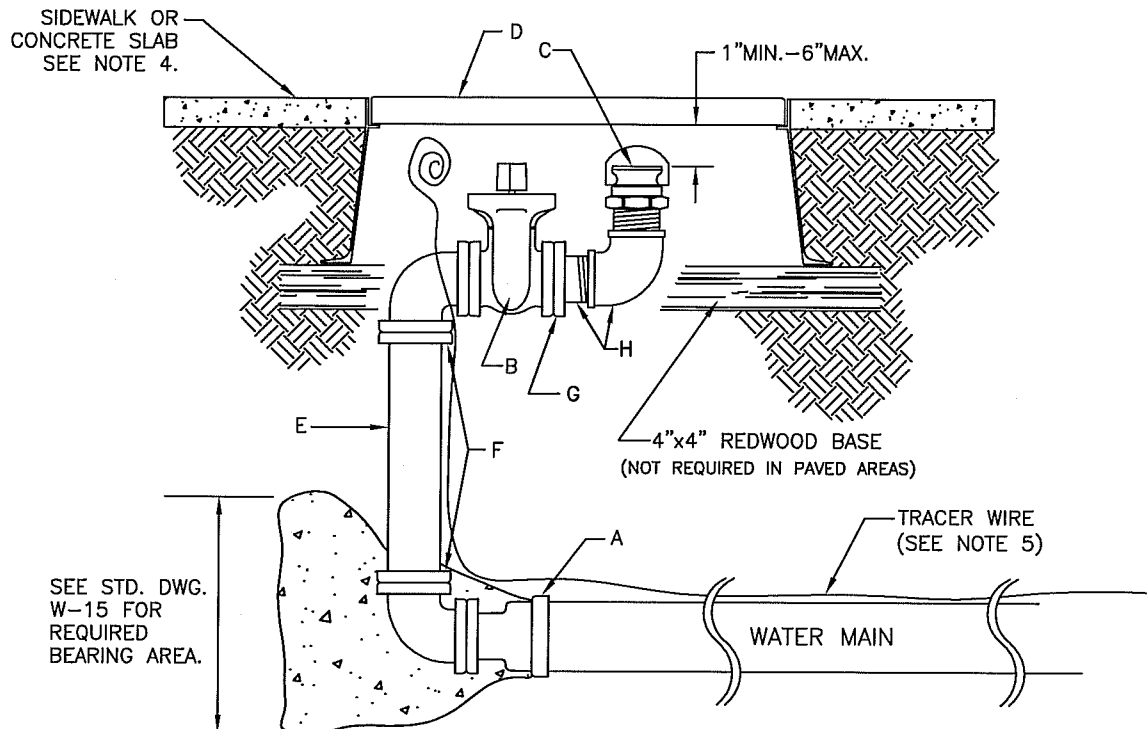
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LEGEND:

- A. DUCTILE IRON REDUCER, MJ TO FLANGED.
- B. GATE VALVE W/2" SQUARE METER WRENCH KEY FITTING, CCW TO OPEN. SEE SIZE SCHEDULE FOR VALVE AND PIPE SIZE.
- C. MALE QUICK-COUPLING HOSE ADAPTOR W/DUST CAP.
- D. SEE SIZE SCHEDULE FOR BLOW OFF BOX.
- E. ALL PIPE AND FITTINGS TO BE DUCTILE IRON, FLANGED.
- F. WELDED FLANGE OR E-Z FLANGE SERIES 1000 DUCTILE IRON FLANGE ADAPTER OR APPROVED EQUIVALENT.
- G. COMPANION FLANGE TO NPT.
- H. GALVANIZED PIPE AND ELBOW.

SIZE SCHEDULE

MAIN SIZE	BLOW-OFF SIZE	BOX TYPE
6"	4"	CHRISTY B36
8"	4"	CHRISTY B36
10"	4"	CHRISTY B36
12"	6"	CHRISTY B40
14"	6"	CHRISTY B40
16"	8"	CHRISTY B52

(FOR LARGER SIZE MAINS, SEE PLANS)

NOTES:

1. CONTRACTOR SHALL FURNISH AND INSTALL ALL ITEMS LISTED IN LEGEND.
2. ALL INSTALLATIONS ARE TO BE INSPECTED AND APPROVED BY CONSTRUCTION MANAGEMENT PRIOR TO POURING THRUST BLOCK.
3. THE CITY ENGINEER SHALL COMPUTE THE REQUIRED BEARING AREAS FOR CASES NOT COVERED HEREIN.
4. ALL BLOW-OFF BOXES IN DIRT OR LANDSCAPED AREAS SHALL BE SET IN A 2" THICK CL.2 CONCRETE SLAB MEASURING AT LEAST 1' ON ALL SIDES OF BOX.
5. TRACER WIRE TO BE #10 STRANDED COPPER, WITH WHITE INSULATION.
6. GALVANIZED PIPE BELOW GROUND TO BE DOUBLE WRAPPED WITH 10 MIL TAPE.



CITY OF CLOVIS

BLOW-OFF VALVE INSTALLATION

DWG NO.

W-13

REF. STD. SPECIFICATIONS
SECTION 66

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CITY ENGINEER

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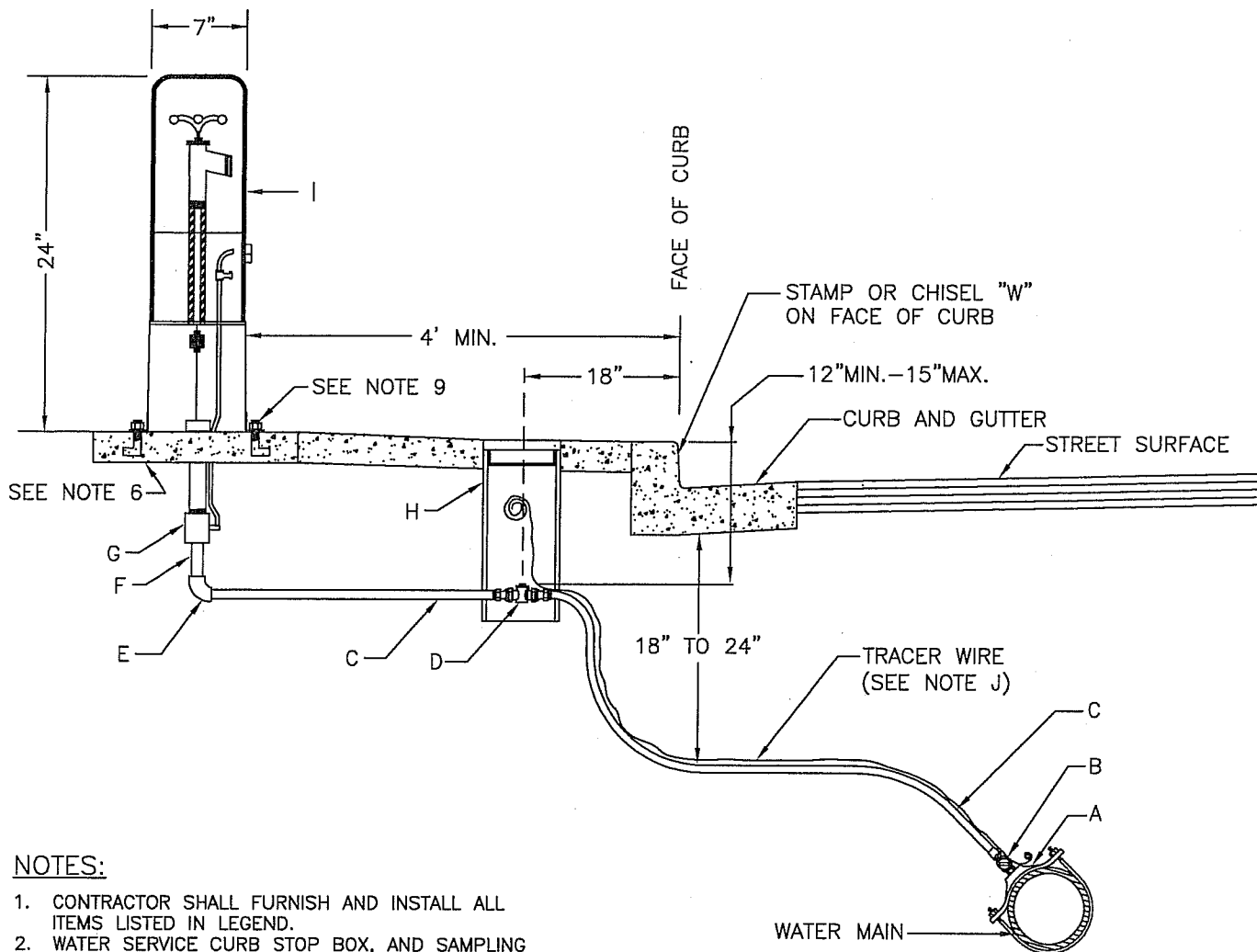
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NOTES:

1. CONTRACTOR SHALL FURNISH AND INSTALL ALL ITEMS LISTED IN LEGEND.
2. WATER SERVICE CURB STOP BOX, AND SAMPLING STATION INSTALLATION SHALL BE INSPECTED AND APPROVED BY CITY PRIOR TO SIDEWALK INSTALLATION.
3. ALL MATERIALS SHALL BE AS NOTED OR CITY APPROVED EQUAL.
4. ALL DIRT SHALL BE REMOVED FROM G5 BOX SO THAT THE SERVICE STOP IS FULLY EXPOSED.
5. ALL GALVANIZED PIPE AND FITTINGS SHALL BE DOUBLE WRAPPED WITH 10 MIL TAPE.
6. ALL CURB BOXES AND SAMPLING STATIONS IN DIRT OR LANDSCAPE AREAS SHALL BE SET IN A 3-1/2" THICK CL.2 CONCRETE SLAB MEASURING AT LEAST 12" ON ALL SIDES OF THE BOX.
7. G5 BOX AND SAMPLING STATION SHALL BE CLEARED OF ALL OTHER FACILITIES.
8. G5 BOX SHALL BE CENTERED OVER CURB STOP ASSEMBLY.
9. MOUNT STATION TO SLAB PER MANUFACTURER'S RECOMMENDATION.

LEGEND:

- A. USE DOUBLE STRAP STAINLESS STEEL BAND, CC AWNA TAPER THREAD (SEE STANDARD DRAWING W-5).
- B. 3/4" CORPORATION STOP, MUELLER 110 COMPRESSION CONNECTION MIP OR APPROVED EQUAL, LEAD FREE.
- C. 3/4" CONTINUOUS COPPER PIPE, TYPE "K" SOFT.
- D. 3/4" CURB STOP CTS X CTS MUELLER 110 COMPRESSION CONNECTION OR APPROVED EQUAL, LEAD FREE.
- E. 3/4" CTS COMPRESSION X 3/4" FIP ELBOW, LEAD FREE.
- F. 3/4" GALV. DOUBLE WRAP, SIZE AS NEEDED.
- G. 1" X 3/4" COUPLING.
- H. CHRISTY NO. G5 BOX AND CAST IRON COVER OR APPROVED EQUAL; TO BE MARKED "WATER".
- I. ECLIPSE NO. 88 WC OR APPROVED EQUAL, WATER SAMPLING STATION.
- J. TRACER WIRE #10 STRANDED COPPER, WITH WHITE INSULATION.



CITY OF CLOVIS

WATER SAMPLING STATION

DWG NO.

W-14

REF. STD. SPECIFICATIONS
SECTION 66

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CITY ENGINEER

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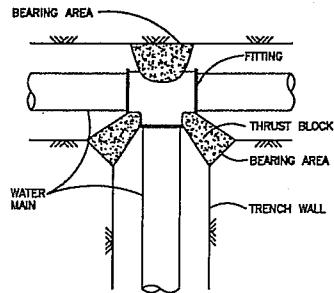
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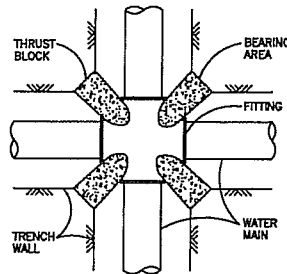
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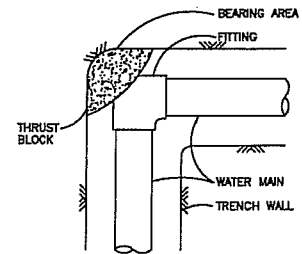
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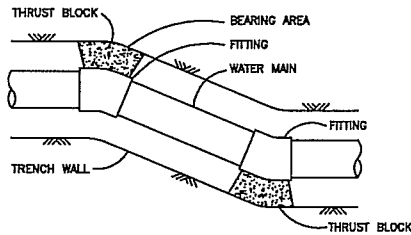
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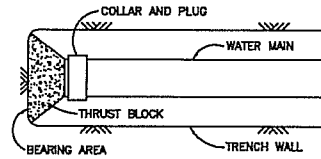
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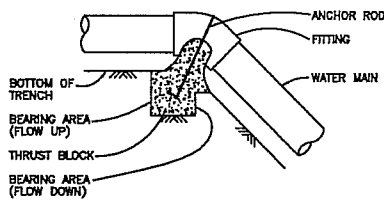
HORIZONTAL 90° BEND



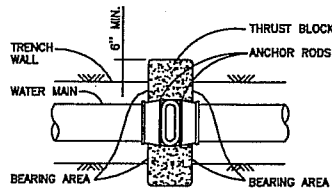
HORIZONTAL BEND



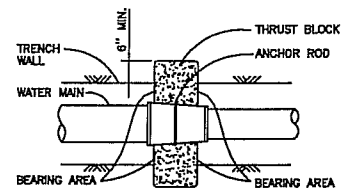
PLUG



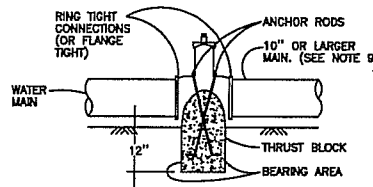
VERTICAL BEND



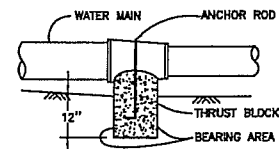
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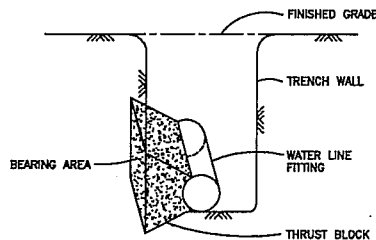
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ELEVATION
VALVES



ELEVATION
REDUCERS



TYPICAL FITTING SECTION

MINIMUM BEARING AREAS REQUIRED (SQ.FT)						
90° BEND	TEE*	90° BEND	45° BEND	22 1/2" BEND	11 1/8" BEND	VALVE
4" & 6"	3	5	3	1	1	0
8"	5	8	4	2	1	0
10"	8	12	7	4	2	4
12"	12	17	9	5	2	9

* INCLUDES CROSSES, PLUGS, REDUCERS AND HYDRANTS.

NOTES:

1. ALL ANCHORS AND THRUST BLOCKS SHALL BEAR AGAINST UNDISTURBED SOIL.
2. THRUST BLOCK BEARING AREAS ARE BASED UPON A DESIGN WATER PRESSURE OF 150 P.S.I.; AND A SOIL BEARING STRENGTH OF 2000 P.S.I.
3. FOR LOOSE SAND, INCREASE BEARING AREA LISTED BY A FACTOR OF FOUR (4).
4. THE RATIO OF BEARING AREA WIDTH TO HEIGHT SHALL NOT EXCEED 1-1/2 TO 1.
5. CONCRETE SHALL BE CLASS 2, MINIMUM 2000 P.S.I. STRENGTH.
6. ANCHOR RODS TO BE NO. 4 REBAR, WITH 3" END BEND, EMBEDDED A MIN. OF 8" INTO THRUST BLOCK.
7. PLACE 30 LB. FELT BETWEEN ALL FITTINGS AND THRUST BLOCKS.
8. THE CITY ENGINEER SHALL COMPUTE THE REQUIRED BEARING AREAS FOR CASES NOT COVERED HEREIN.
9. THRUST BLOCKS FOR VALVES ARE REQUIRED ONLY WHEN THE WATER MAIN AND VALVE IS EQUAL TO OR GREATER THAN 10" IN DIAMETER.
10. RESTRAINED JOINTS MAY BE APPROVED BY CITY ENGINEER IN LIEU OF CERTAIN THRUST BLOCKS.



CITY OF CLOVIS

CONCRETE THRUST BLOCKS

DWG NO.
W-15

REF. STD. SPECIFICATIONS
SECTION 66

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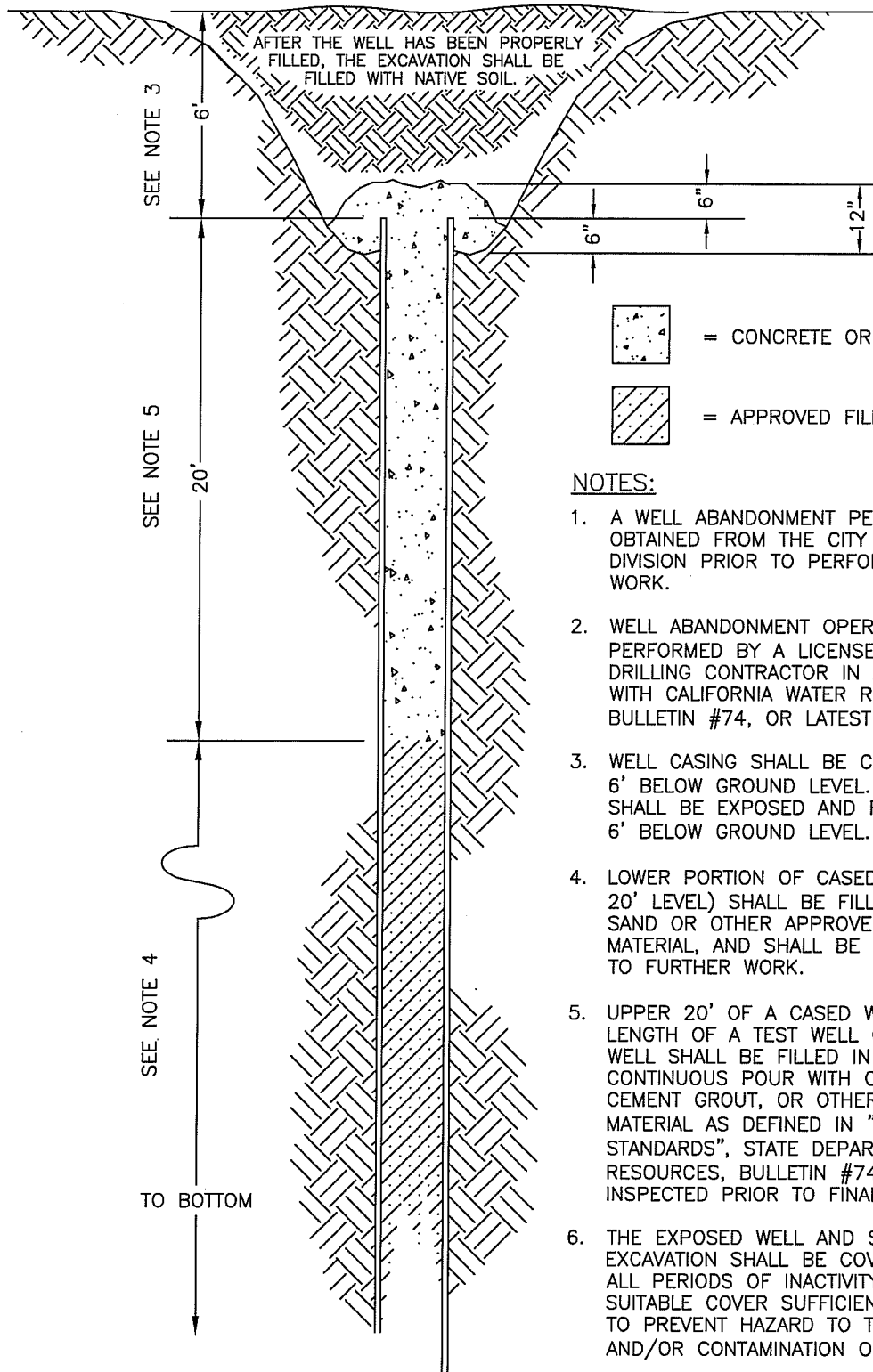
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NOTES:

1. A WELL ABANDONMENT PERMIT SHALL BE OBTAINED FROM THE CITY BUILDING DIVISION PRIOR TO PERFORMANCE OF WORK.
2. WELL ABANDONMENT OPERATIONS SHALL BE PERFORMED BY A LICENSED (C-57) WELL DRILLING CONTRACTOR IN ACCORDANCE WITH CALIFORNIA WATER RESOURCES BULLETIN #74, OR LATEST REVISION.
3. WELL CASING SHALL BE CUT OFF AT LEAST 6' BELOW GROUND LEVEL. UNCASSED WELLS SHALL BE EXPOSED AND FILLED AT LEAST 6' BELOW GROUND LEVEL.
4. LOWER PORTION OF CASSED WELLS (BELOW 20' LEVEL) SHALL BE FILLED WITH CLEAN SAND OR OTHER APPROVED NONORGANIC MATERIAL, AND SHALL BE INSPECTED PRIOR TO FURTHER WORK.
5. UPPER 20' OF A CASSED WELL OR ENTIRE LENGTH OF A TEST WELL OR UNCASSED WELL SHALL BE FILLED IN ONE CONTINUOUS POUR WITH CONCRETE CEMENT GROUT, OR OTHER IMPERVIOUS MATERIAL AS DEFINED IN "WATER WELL STANDARDS", STATE DEPARTMENT OF WATER RESOURCES, BULLETIN #74, AND INSPECTED PRIOR TO FINAL COVERING.
6. THE EXPOSED WELL AND SURROUNDING EXCAVATION SHALL BE COVERED DURING ALL PERIODS OF INACTIVITY WITH A SUITABLE COVER SUFFICIENTLY ANCHORED TO PREVENT HAZARD TO THE PUBLIC AND/OR CONTAMINATION OF THE WELL.



CITY OF CLOVIS

WATER WELL ABANDONMENT

DWG NO.

W-16

REF: WATER WELL STDS.,
CALIF. WATER RESOURCES
BULLETIN #74

APPROVED BY:

CITY ENGINEER

DATE:

1/17/13

NO.

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SCALE: NTS

02-26-09

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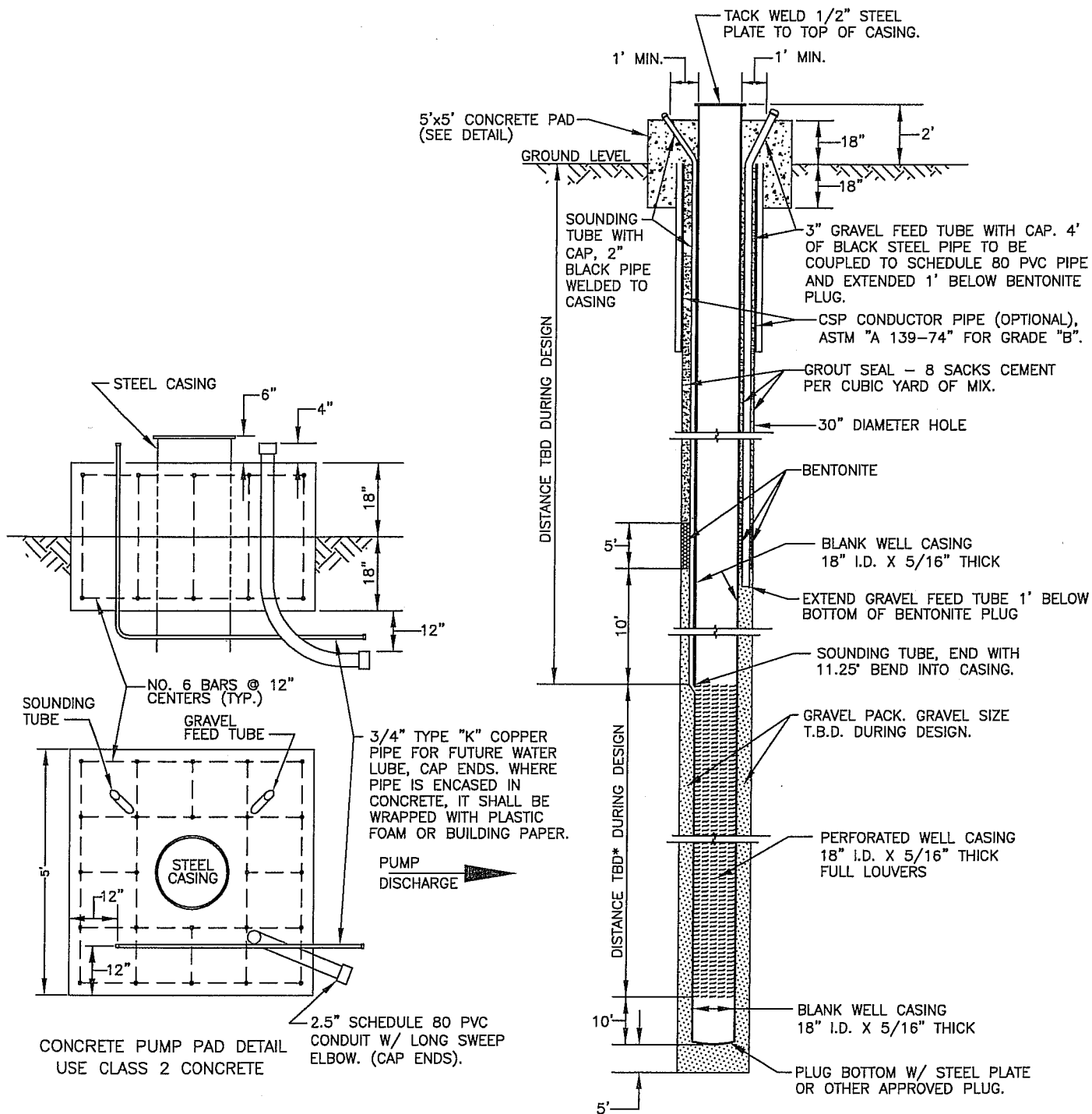
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*TBD = TO BE DETERMINED



CITY OF CLOVIS

DWG NO.

W-17

TYPICAL MUNICIPAL WATER WELL DESIGN

STD. REF: N.A.

APPROVED BY:

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SCALE: NTS

CITY ENGINEER

02-26-09

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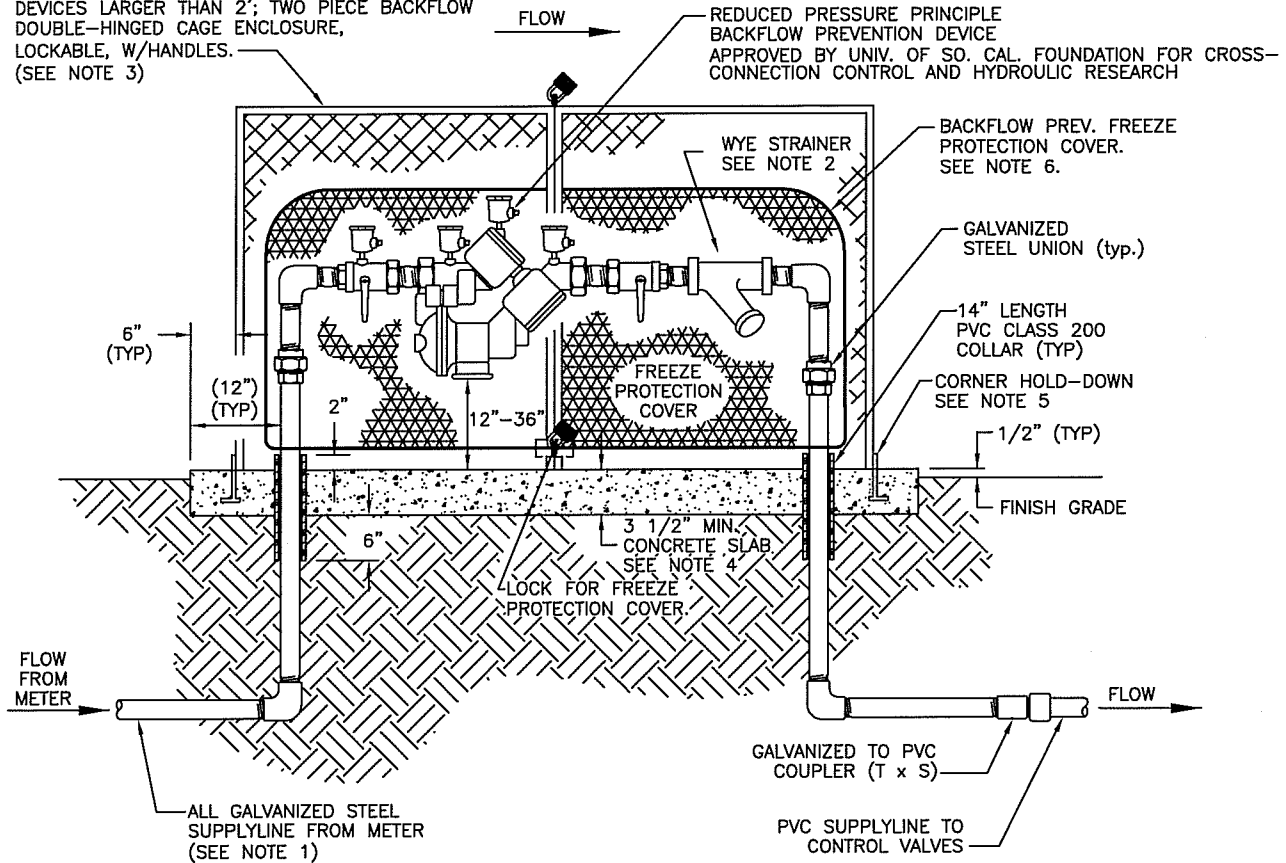
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DATE:

SHEET 1 OF 1

PREVENTION DEVICES 2' AND SMALLER; 1-PIECE SINGLE-HINGED CAGE. (SEE NOTES 3 & 7)
DEVICES LARGER THAN 2'; TWO PIECE BACKFLOW DOUBLE-HINGED CAGE ENCLOSURE, LOCKABLE, W/HANDLES. (SEE NOTE 3)



NOTES:

1. ALL GALVANIZED STEEL PIPE AND FITTINGS BELOW GRADE TO BE PRIMED AND WRAPPED WITH A 50 PERCENT OVERLAP OF 10 MIL CORROSION PROTECTION TAPE. (SCOTCHRAP OR EQUAL)
2. 150 MESH WYE STRAINER WITH BALL VALVE REQUIRED FOR DRIP OR LOW FLOW APPLICATIONS. ROTATE STRAINER 30 DEGREES DOWNWARD FROM HORIZONTAL.
3. SIZE OF BACKFLOW PREVENTER SHALL DICTATE THE SIZE OF THE ENCLOSURE. CONSULT ENCLOSURE MANUFACTURER'S LITERATURE TO DETERMINE CORRECT MODEL NUMBER.
4. SIZE OF THE ENCLOSURE SHALL DICTATE THE SIZE OF THE CONCRETE PAD, WHICH SHALL BE 15 cm (6") LARGER, ON ALL SIDES, THAN THE ENCLOSURE. THE PAD SHALL BE SUFFICIENTLY THICK TO EXTEND 8 cm (3") MIN. BELOW GRADE ON ALL SIDES. TOP OF PAD TO BE SLOPED TO DRAIN.
5. CORNER HOLD-DOWN ASSEMBLIES FOR ENCLOSURE SHALL BE EMBEDDED IN CONCRETE PAD PER MANUFACTURER'S SPECS.
6. A BACKFLOW PREVENTER FREEZE PROTECTION COVER SHALL BE INSTALLED OVER THE BACKFLOW PREVENTER.
7. WHEN FABRICATING 1-PIECE SINGLE-HINGED CAGE ALLOW FOR FREEZE PROTECTION COVER CLEARANCE WHEN OPENING AND CLOSING CAGE.

IMPORTANT

THE BACKFLOW PREVENTION ASSEMBLY SHALL BE TESTED AND APPROVED BY AN APPROVED AWWA OR ABPA CERTIFIED TESTER WITHIN FIVE (5) DAYS OF INSTALLATION WITH THE RESULTS SENT TO THE CITY BACKFLOW PROGRAM COORDINATOR VIA:

MAIL TO: 155 N. SUNNYSIDE
CLOVIS, CA 93611
FAX: (559) 324-2862
IN PERSON: CITY OF CLOVIS PUBLIC
UTILITIES DEPT.
155 N. SUNNYSIDE,
CLOVIS, CA
2ND FLOOR - ADMIN. BLDG.

A LIST OF THE CITY'S APPROVED BACKFLOW TESTERS MAY BE OBTAINED THROUGH THE CITY WEBSITE AT:
www.cityofclovis.com UNDER THE PUBLIC UTILITIES DEPARTMENT.



CITY OF CLOVIS

CITY BACKFLOW PREVENTION DEVICE

DWG NO.

W-18

REF: STD. SPECS
SECTION 21, LANDSCAPE
IRRIGATION SYSTEMS

SCALE: NTS

DRAWN BY: JA

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CITY ENGINEER

DATE:

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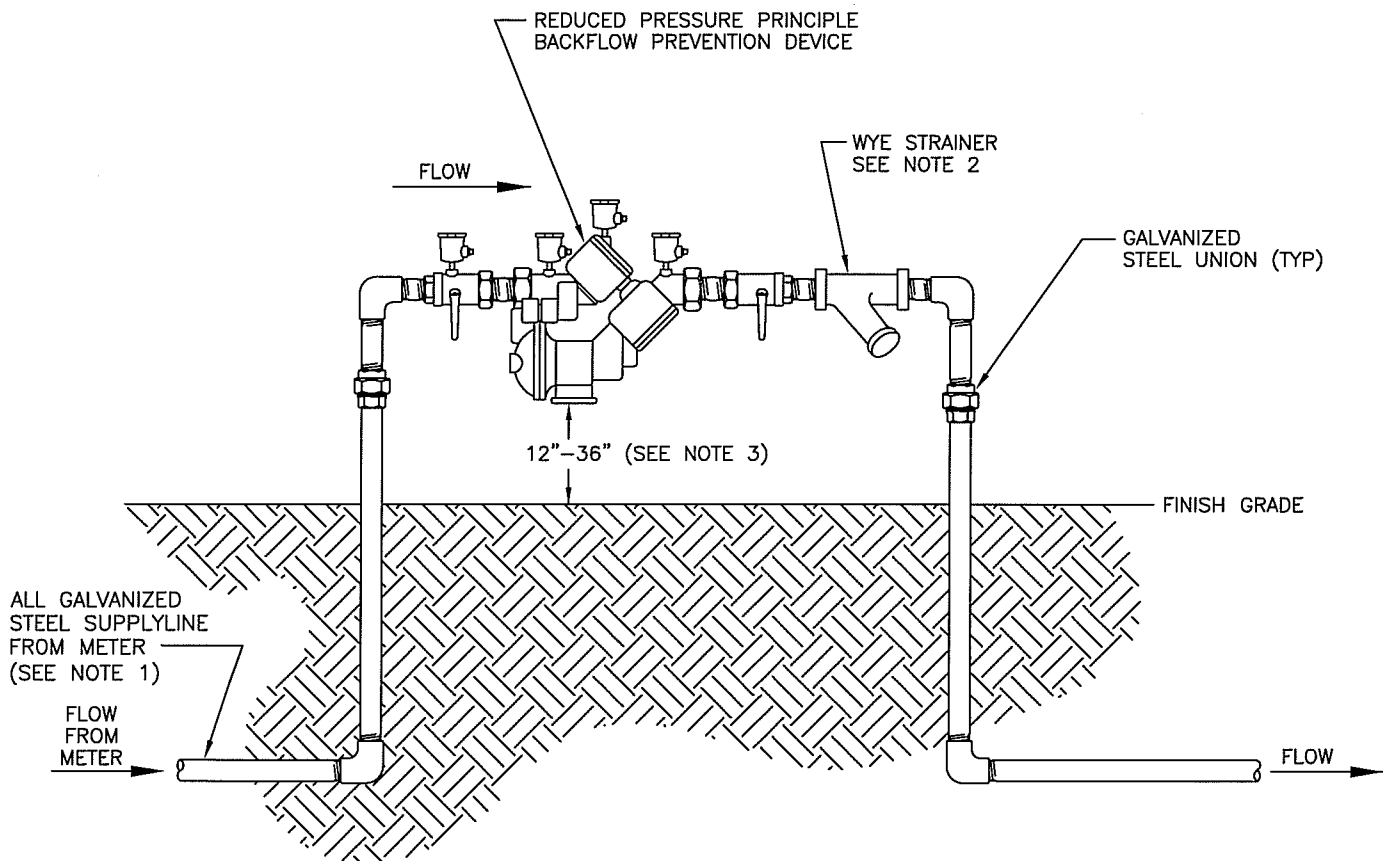
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NOTES:

1. ALL GALVANIZED STEEL PIPE AND FITTINGS BELOW GRADE TO BE PRIMED AND WRAPPED WITH A 50 PERCENT OVERLAP OF 10 MIL CORROSION PROTECTION TAPE. (SCOTCHRAP OR EQUAL)
2. 150 MESH WYE STRAINER WITH BALL VALVE REQUIRED FOR DRIP OR LOW FLOW APPLICATIONS. ROTATE STRAINER 30 DEGREES DOWNWARD FROM HORIZONTAL.
3. A MINIMUM CLEARANCE OF 12" FROM THE BOTTOM OF BACKFLOW DEVICE (RELIEF VALVE OPENING) AND TOP OF GRADE SHALL BE KEPT AT ALL TIMES WITH A MAXIMUM CLEARANCE OF 36".
4. CONCRETE PAD IS RECOMMENDED, BUT NOT REQUIRED. IF INSTALLING A CONCRETE PAD, THE PAD SHALL BE CLASS 2 CONCRETE SUFFICIENTLY THICK TO EXTEND 3" MIN. BELOW GRADE ON ALL SIDES. TOP OF PAD TO BE SLOPED TO DRAIN.

IMPORTANT

THE BACKFLOW PREVENTION ASSEMBLY SHALL BE TESTED AND APPROVED BY AN APPROVED AWWA OR ABPA CERTIFIED TESTER WITHIN FIVE (5) DAYS OF INSTALLATION WITH THE RESULTS SENT TO THE CITY BACKFLOW PROGRAM COORDINATOR VIA:

MAIL TO: 155 N. SUNNYSIDE
CLOVIS, CA 93611
FAX: (559) 324-2862
IN PERSON: CITY OF CLOVIS PUBLIC
UTILITIES DEPT.
155 N. SUNNYSIDE,
CLOVIS, CA
2ND FLOOR - ADMIN. BLDG.

A LIST OF THE CITY'S APPROVED BACKFLOW TESTERS MAY BE OBTAINED THROUGH THE CITY WEBSITE AT:
www.cityofclovis.com UNDER THE PUBLIC UTILITIES DEPARTMENT.



CITY OF CLOVIS

PRIVATE BACKFLOW PREVENTION DEVICE

DWG NO.

W-19

STANDARD REF:
N.A.

APPROVED BY:

CITY ENGINEER

DATE:

NO.

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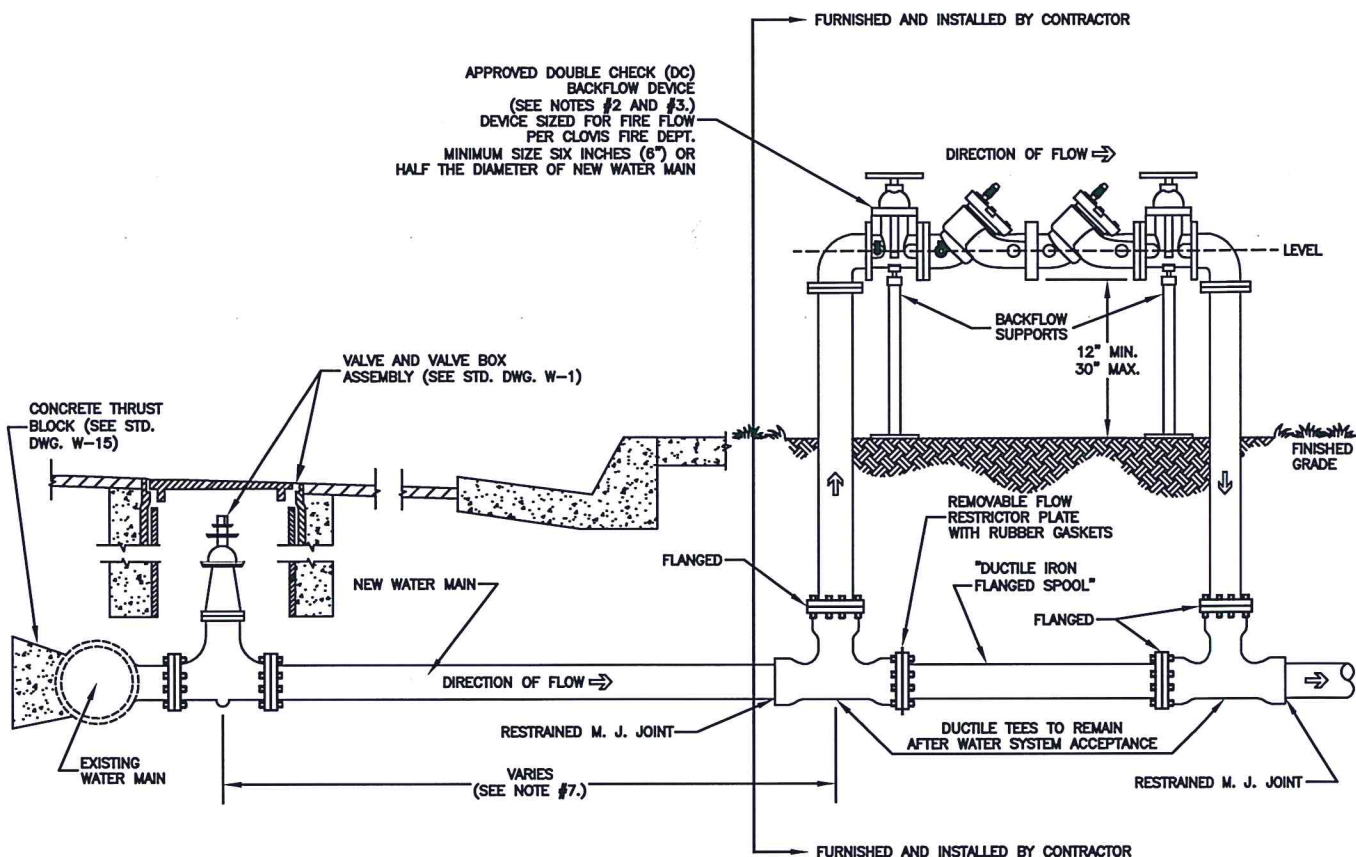
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SHEET 1 OF 1



GENERAL NOTES

1. ANY DEVIATION FROM THESE REQUIREMENTS SHALL BE APPROVED BY THE PUBLIC UTILITIES DEPT. PRIOR TO INSTALLATION.
2. DOUBLE CHECK (DC) BACKFLOW DEVICE WITH ASSOCIATED PIPING, VALVES, TEES, AND FITTINGS SHALL BE FURNISHED AND INSTALLED BY CONTRACTOR. DEVICE SIZED FOR FIRE FLOW PER CLOVIS FIRE DEPT. MINIMUM SIZE SIX INCHES (6") OR HALF THE DIAMETER OF NEW WATER MAIN. REDUCED PRESSURE (RP) BACKFLOW DEVICE MAY BE USED IN LIEU OF A DOUBLE CHECK (DC) BACKFLOW DEVICE.
3. RECOMMENDED DOUBLE CHECK BACKFLOW DEVICES: WILKINS MODEL 350 SERIES, FEBCO MODEL LF850, OR APPROVED EQUAL BY THE UNIVERSITY OF SOUTHERN CALIFORNIA (U.S.C.) FOUNDATION FOR CROSS-CONNECTION CONTROL AND HYDRAULIC RESEARCH.
4. NEW SYSTEM OF MAINS, HYDRANTS AND SERVICES SHALL BE PRESSURE TESTED AND SHALL PASS STANDARD BACTERIAL TESTING PRIOR TO FINAL CONNECTION TO EXISTING CITY WATER SYSTEM.
5. WET TIE TO EXISTING WATER SYSTEM WILL BE PERFORMED BY CONTRACTOR UNDER THE OBSERVATION OF PUBLIC UTILITIES WATER DIVISION PERSONNEL.
6. UPON PUBLIC UTILITIES DEPT. ACCEPTANCE OF THE COMPLETE WATER SYSTEM, CONTRACTOR SHALL REMOVE THE DOUBLE CHECK (DC) BACKFLOW DEVICE, FLOW RESTRICTOR PLATE, ASSOCIATED PIPING, VALVES, AND FITTINGS. DUCTILE TEES TO REMAIN IN PLACE BLIND FLANGED BY CONTRACTOR.
7. DISTANCE VARIES PER INSTALLATION, DISTANCE REQUIRES PUBLIC UTILITIES DEPT. APPROVAL.



CITY OF CLOVIS

TEMPORARY BACKFLOW DEVICE PROTECTION FOR NEW WATER MAIN CONNECTIONS

DWG NO.

W-20

REF. STD. SPECIFICATIONS
SECTION 66

APPROVED BY:

NO.

REVISED

BY

APPROVALS

SCALE: NTS

CITY ENGINEER

DATE:

10-2-17

04-08-14

09-14-17

RE

BGJ

CM

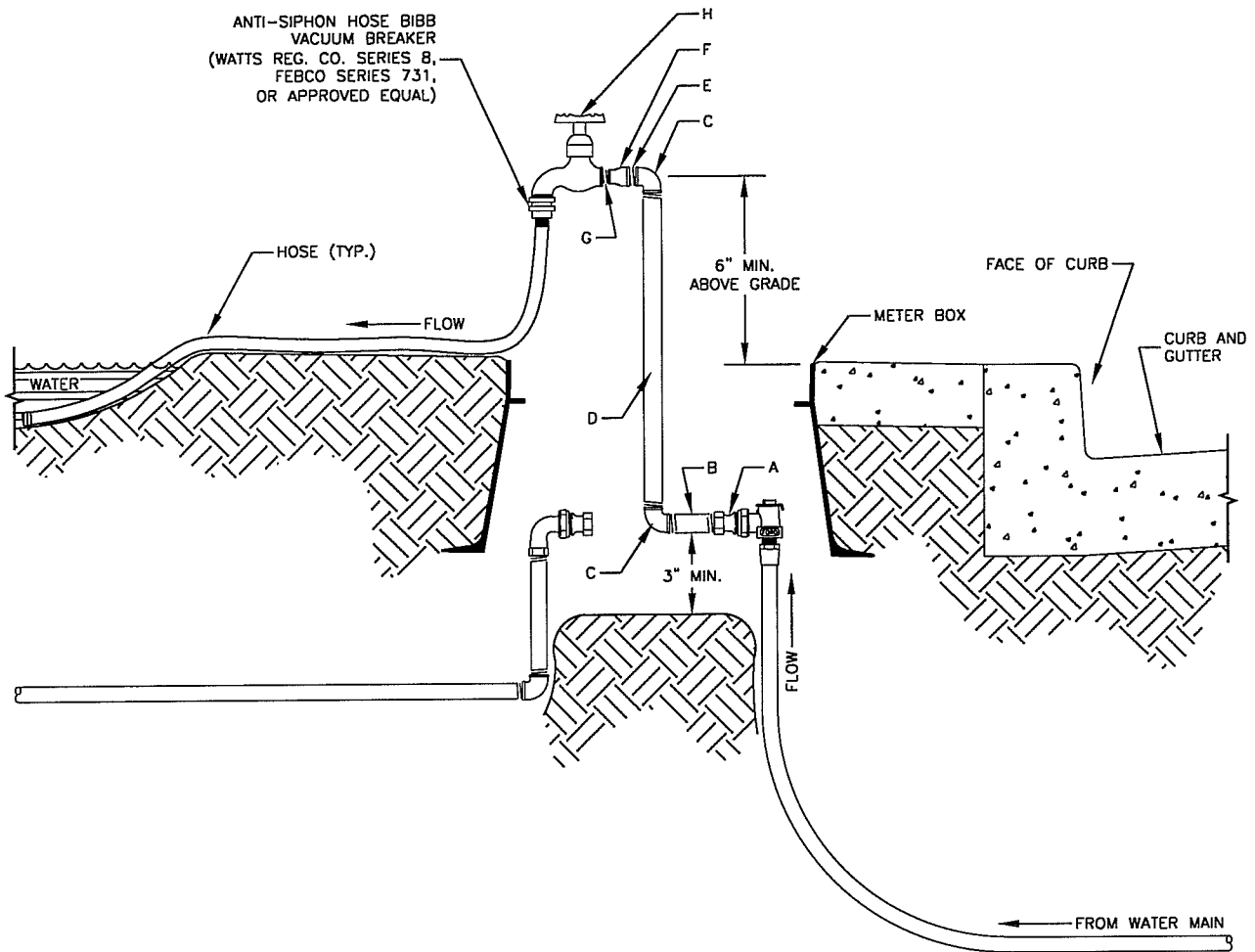
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FIRE

DRAWN BY: RE

SHEET 1 OF 1



LEGEND:

- A. METER IDLER TO PIPE THREAD ADAPTER
- B. 1" x 5" GALVANIZED PIPE INSTALLED LEVEL
- C. 1" GALVANIZED 90° ELBOW
- D. 1" GALVANIZED PIPE, LENGTH VARIES
- E. 1" DIAMETER NIPPLE
- F. 1" TO 3/4" REDUCER
- G. 3/4" DIAMETER NIPPLE
- H. 3/4" HOSE BIB (TYP.)

NOTES:

1. CONTRACTOR SHALL FURNISH AND INSTALL ALL ITEMS LISTED IN LEGEND.
2. SEE STANDARD W-5 FOR WATER SERVICE.
3. WATER SERVICE AND METER BOX INSTALLATION SHALL BE INSPECTED AND APPROVED BY CITY PRIOR TO SIDEWALK INSTALLATION.
4. ALL MATERIALS SHALL BE AS NOTED OR CITY APPROVED EQUAL.
5. A CLEAR SPACE OF AT LEAST 3" SHALL BE MAINTAINED BETWEEN SPACER ASSEMBLY (B) AND TOP OF DIRT INSIDE BOX.



CITY OF CLOVIS

ANTI-SIPHON HOSE BIBB VACUUM BREAKER FOR TEMPORARY HOSE CONNECTION

DWG NO.

W-21

REF. STD. SPECIFICATIONS
SECTION 66

APPROVED BY:

CITY ENGINEER

DATE:

NO.

REVISED

BY

APPROVALS

06-19-14

R.E.

CM

DRU

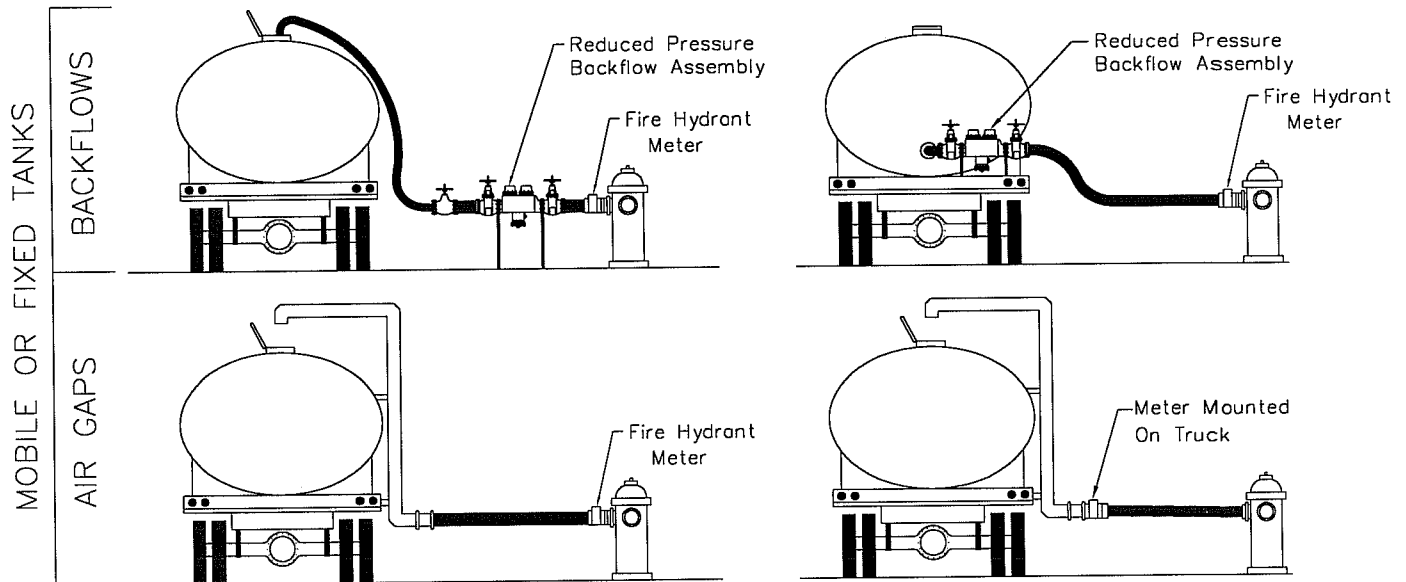
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SCALE: NTS

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SHEET 1 OF 1

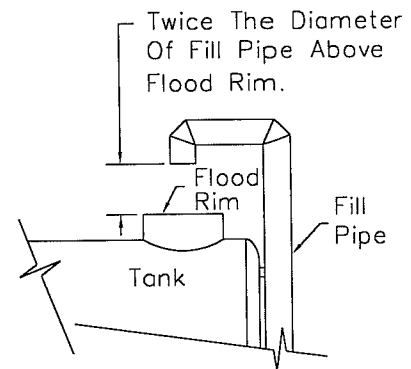
- ALL CONNECTIONS MUST BE METERED WITH A CITY OF CLOVIS METER.
- ALL CONNECTIONS MUST BE PROTECTED BY AN AIR GAP OR R.P. BACKFLOW DEVICE.



NOTES: PER CITY OF CLOVIS MUNICIPAL CODE.

(A) PERMITS TO USE. NO PERSON SHALL TAKE WATER THROUGH OR FROM ANY FIRE HYDRANT IN THE CITY WITHOUT A VALID PERMIT AND SHALL FIRST FILE WITH THE CITY AN APPLICATION SPECIFYING THE HYDRANT AND THE TIME DESIRED TO TAKE SUCH WATER. PERMITS MAY BE REFUSED ANY PERSON WHO MAY BE INDEBTED TO THE CITY FOR WATER PREVIOUSLY RECEIVED BY SUCH PERSON FROM THE CITY.

(B) ANY PERSON TAKING WATER THROUGH OR FROM ANY CITY FIRE HYDRANT SHALL UTILIZE A HYDRANT METER RENTED FROM THE PUBLIC UTILITIES DEPARTMENT ACCORDING TO THE PERMIT TERMS. AN APPROPRIATE BACKFLOW DEVICE SHALL BE INSTALLED DOWNSTREAM FROM THE HYDRANT METER AS DETERMINED BY THE CITY.



AIR GAP PIPE DETAIL

	CITY OF CLOVIS				DWG NO. W-22
	PORTABLE WATER TANK FIRE HYDRANT REGULATIONS				REF. STANDARD SPECIFICATIONS
APPROVED BY:	NO.	REVISED	BY	APPROVALS	SCALE: NTS
CITY ENGINEER		09-29-14	BGJ	CM DRU PUD	DRAWN BY: BGJ
		09-18-14	BGJ		SHEET 1 OF 1
	DATE: 9/20/14	09-24-14	BGJ		