


BRIGHAM CITY CORPORATION


PUBLIC WORKS STANDARD DRAWINGS

SUBMITTED & RECOMMENDED

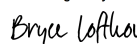
DocuSigned by:

3ACB3BDEEE1488
BRETT M. JONES, P.E.
CITY ENGINEER



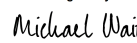
APPROVAL

DocuSigned by:

B12EF4242ADF45B
TYLER PUGSLEY
DIRECTOR OF PUBLIC WORKS

1/3/2023 | 2:58 PM MST
DATE

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161259C98DB5496
BRYCE LOFTHOUSE, MANAGER
WASTEWATER TREATMENT PLANT

12/28/2022 | 8:17 AM MST
DATE

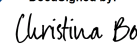
DocuSigned by:

6693110BA88C177
MICHAEL WAITE
WATER SUPERINTENDENT

12/28/2022 | 9:37 AM MST
DATE

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788CE2014G8F492
JASON KETSDEVER
FLEET MANAGER/STREET SUPERVISOR

12/27/2022 | 6:52 PM MST
DATE

DocuSigned by:

759B23E80A5B4FE
CHRISTINA BOSS
ATTEST, CITY RECORDER

12/27/2022 | 5:18 PM MST
DATE



7th EDITION
DECEMBER 2022



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GENERAL CONSTRUCTION

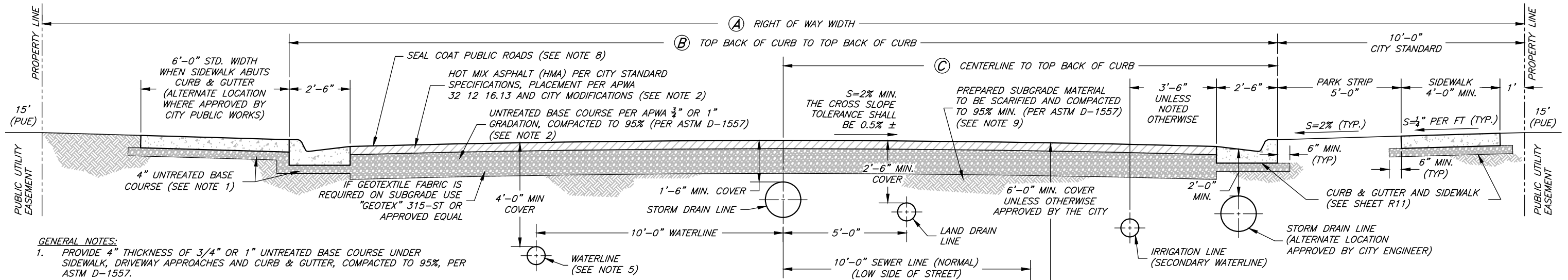
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GENERAL NOTES:

1. PROVIDE 4" THICKNESS OF 3/4" OR 1" UNTREATED BASE COURSE UNDER SIDEWALK, DRIVEWAY APPROACHES AND CURB & GUTTER, COMPACTED TO 95%, PER ASTM D-1557.
2. PAVEMENT COMPONENT THICKNESSES SHALL BE DETERMINED BY THE GEOTECHNICAL ENGINEER BASED ON A DETAILED SOILS ANALYSIS AND USING THE MINIMUM DESIGN PARAMETERS AS FOUND IN APPENDIX B, AND APPROVED BY THE CITY ENGINEER. THE ABSOLUTE MINIMUM PAVEMENT SECTION IS 3-INCH THICK HMA WITH 8-INCH UTBC. IF NO GEOTECHNICAL REPORT IS AVAILABLE (EMERGENCY SITUATION, ETC.), 4-INCH THICK HMA WITH 6-INCH THICK UTBC AND 8-INCH THICK GRANULAR BORROW SUBGRADE MATERIAL SHALL BE USED.
3. ALL ROAD CUTS SHALL BE PATCHED PER SHEET R12.
4. CURB & GUTTER AND SIDEWALKS SHALL BE CONSTRUCTED USING FIBER REINFORCED CONCRETE AND IN COMPLIANCE WITH BRIGHAM CITY TECHNICAL SPECIFICATIONS AND THESE DRAWINGS.
5. ALL CULINARY WATER MAINS AND SERVICES MUST MAINTAIN A MINIMUM SEPARATION FROM ALL SEWER MAINS AND LATERALS OF 10'-0" HORIZONTAL AND 18" VERTICAL IN ACCORDANCE WITH THE STATE OF UTAH DIVISION OF DRINKING WATER RULES SECTION R309-550-7

GENERAL NOTES CONT.:

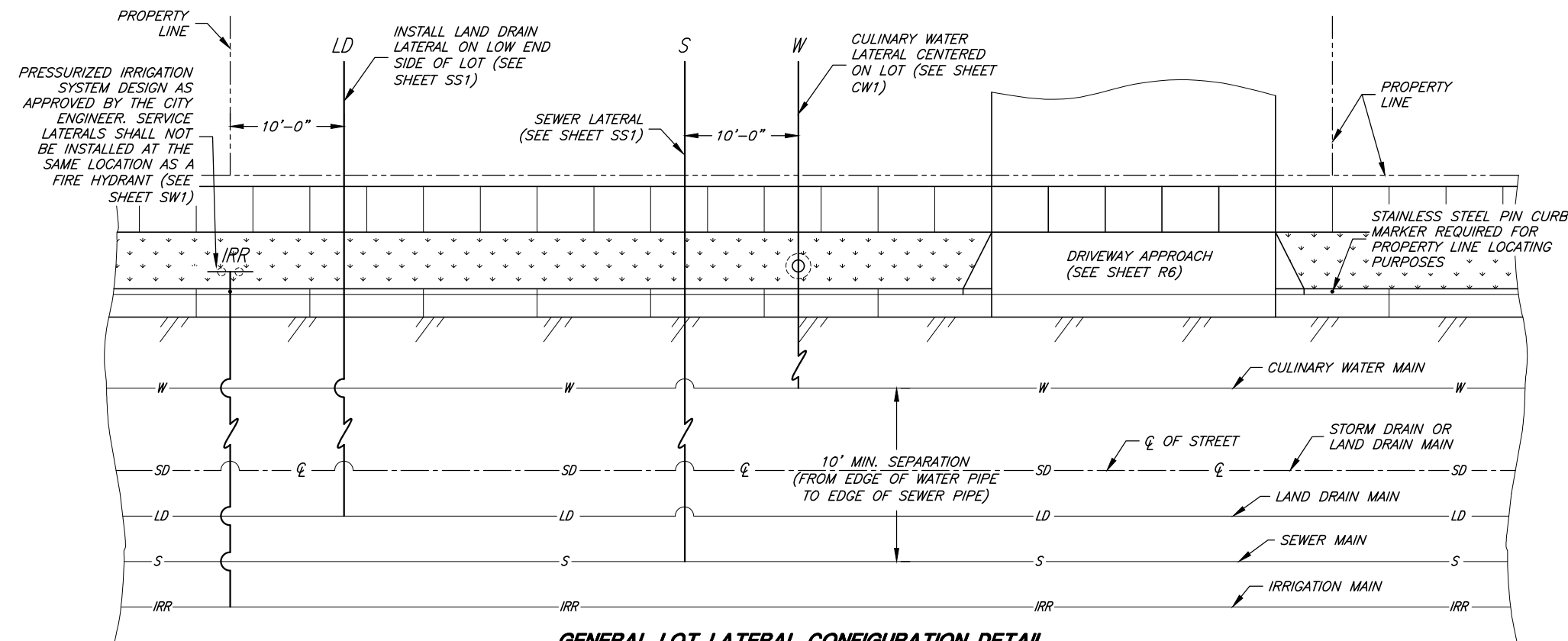
6. THE 4'-0" SIDEWALK SHOWN ABOVE IS TO BE CONSIDERED THE "CITY STANDARD." OTHER LOCATIONS AND TYPES OF SIDEWALK AS REQUESTED BY THE DEVELOPER MUST BE APPROVED BY THE CITY. IF SIDEWALK IS LOCATED AGAINST THE TBC, IT MUST BE A MINIMUM OF 6 FEET IN WIDTH.
7. NATURAL GAS TYPICALLY LOCATED IN THE PARK STRIP, POWER AND COMMUNICATION LINES TYPICALLY LOCATED BEHIND PROPERTY LINES OR IN LOT EASEMENTS.
8. "SEAL COAT" CONSISTS OF THE FOLLOWING:
 - a. CHIP SEAL PER APWA 32 01 13.64 AND CITY MODIFICATIONS, AND
 - b. FOG SEAL PER APWA 32 01 13.50
9. IMPORTED FILL UNDER ROADWAY SHALL BE GRANULAR BORROW, 3" MAX.
10. PARK STRIP TO CURB CROSS-SLOPE - VARIANCE FROM 2% AS APPROVED BY THE CITY ENGINEER OR BRIGHAM CITY REPRESENTATIVE.

STANDARD STREET SECTION

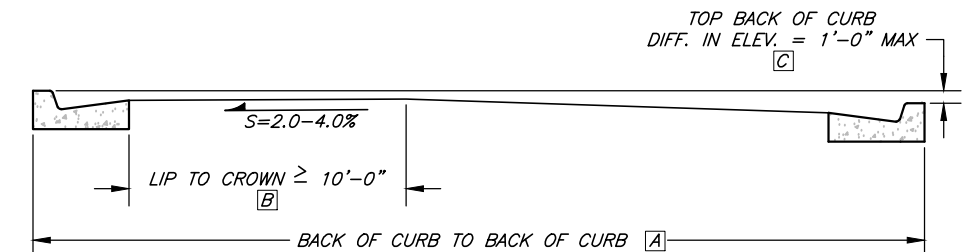
CURBED ROAD SECTION

STREET DESIGNATION	R.O.W. WIDTH Ⓐ	T.B.C. TO T.B.C. Ⓑ	℄ TO T.B.C. Ⓒ
MINOR ROADWAY	50'	30'	15'
STANDARD RESIDENTIAL ROADWAY	60'	40'	20'
COLLECTOR ROADWAY	66'	46'	23'
LOW IMPACT ROADWAY (RURAL)	66'	SEE SHEET R2	
CITY DESIGNATED CORRIDOR STREET CROSS SECTIONS			
400 SOUTH (RAILROAD TO 1200 W)	80'	SEE SHEET R2	
2600 WEST (SR-13 TO WEST FOREST ST)	66'	SEE SHEET R2	
WEST FOREST STREET (WEST OF I-15)	66'	LOW IMPACT ROADWAY (RURAL)	
1100 & 1200 WEST (SR-13 TO 1100 S)	106'	SEE SHEET R3	
1150 SOUTH (1100 WEST TO COMMERCE WAY)	80'	SEE SHEET R3	
SR-13 (450 W TO MAIN STREET)	VARIES	SEE SHEET R4	
MAIN STREET (900 N TO THE NORTH CITY BOUNDARY)	VARIES	SEE SHEET R4	

NOTE:
THE ABOVE AND ALTERNATIVE ROAD SECTIONS REQUIRED SHALL BE AS DETERMINED BY THE CITY ENGINEER & PLANNING COMMISSION BASED UPON ZONING, GENERAL PLAN, SIZE OF DEVELOPMENT, ESTIMATED TRAFFIC VOLUME, & AMOUNT OF OPEN SPACE ASSOCIATED WITH DEVELOPMENTS, AS WELL AS THEIR PROXIMITY TO HIGH VOLUME ROADS OR COMMERCIAL ZONING.



GENERAL LOT LATERAL CONFIGURATION DETAIL

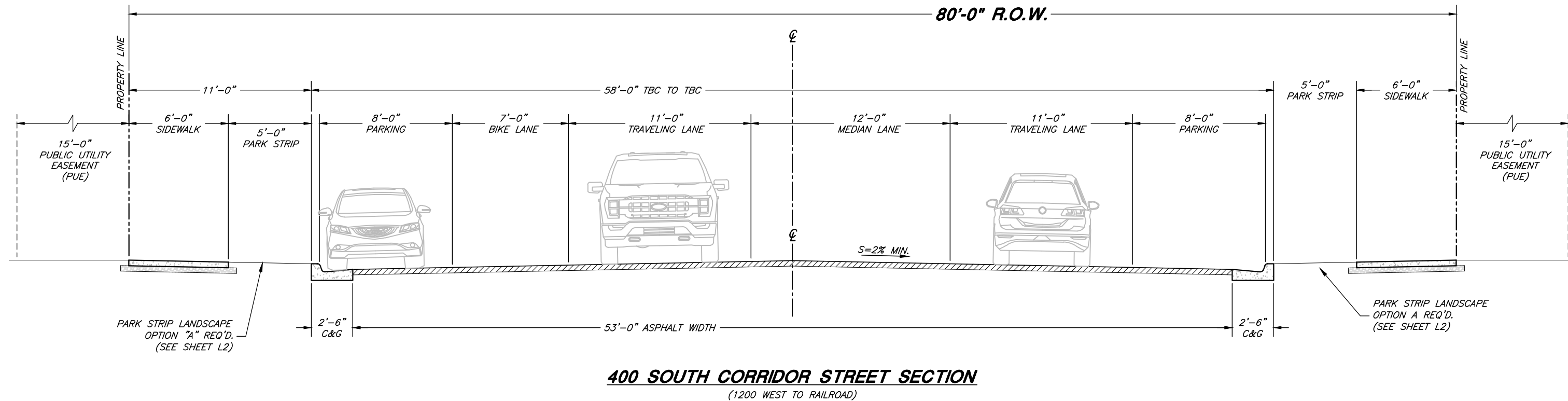
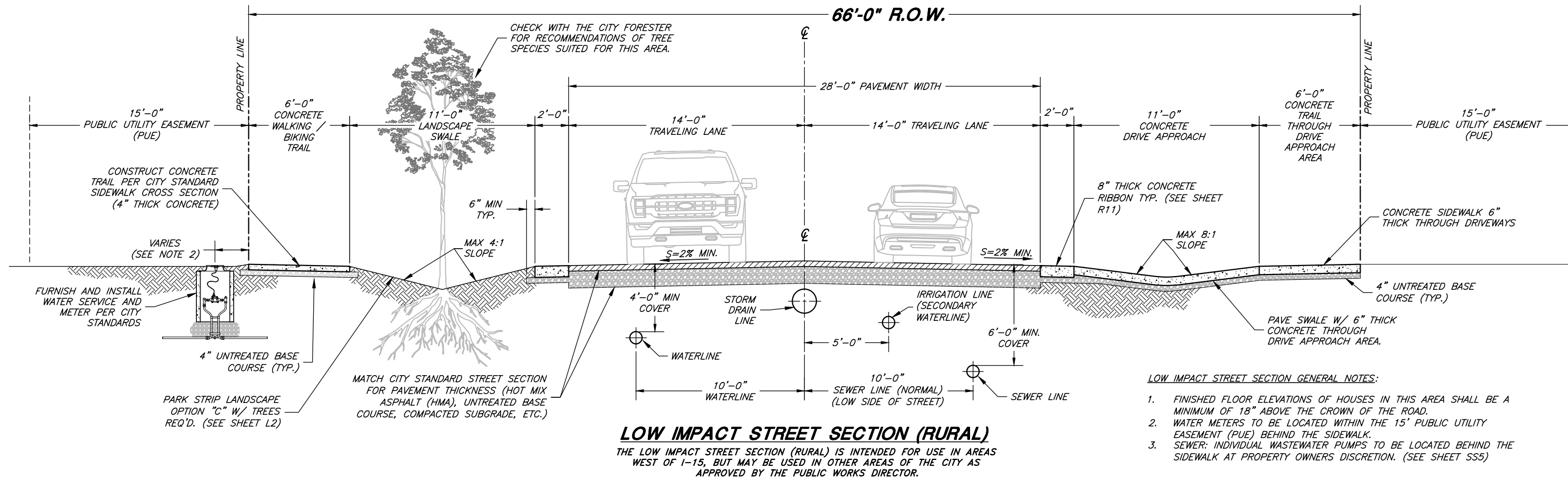


CROWN NOTES:

- A. MAXIMUM DIFFERENCE IN ELEVATION BETWEEN CURBS ON OPPOSITE SIDES OF THE STREET SHALL NOT EXCEED 1'-0" AS SHOWN IN DETAIL AND TABLE.
- B. ON ARTERIAL STREETS AND CERTAIN STREETS APPROVED BY THE CITY COUNCIL, THE CITY ENGINEER WILL PROVIDE A PAVEMENT DESIGN. LOCATION OF SIDEWALK AND CURB & GUTTER MAY VARY ON INDIVIDUAL ARTERIAL STREETS PER DIRECTION OF THE CITY ENGINEER.
- C. ALL OTHER PROPOSED STREET CROSS SECTIONS SHALL BE AS APPROVED BY THE CITY ENGINEER.

CROWN LOCATION TABLE		
A	B	C
40'-0"	17'-6"	0'-0"
40'-0"	12'-0"	0'-6"
40'-0"	10'-0"	1'-0"
46'-0"	20'-6"	0'-0"
46'-0"	10'-6"	0'-6"
46'-0"	10'-6"	1'-0"
CUL-DE-SAC		1'-0" MAX.

CROWN LOCATION FOR VARIOUS CROSS SLOPES



Brett M. Jones
CITY ENGINEER
12/15/2022
DATE

REV.	DATE

SCALE:
N.T.S.

DESIGNED _____
DRAWN _____
CHECKED _____



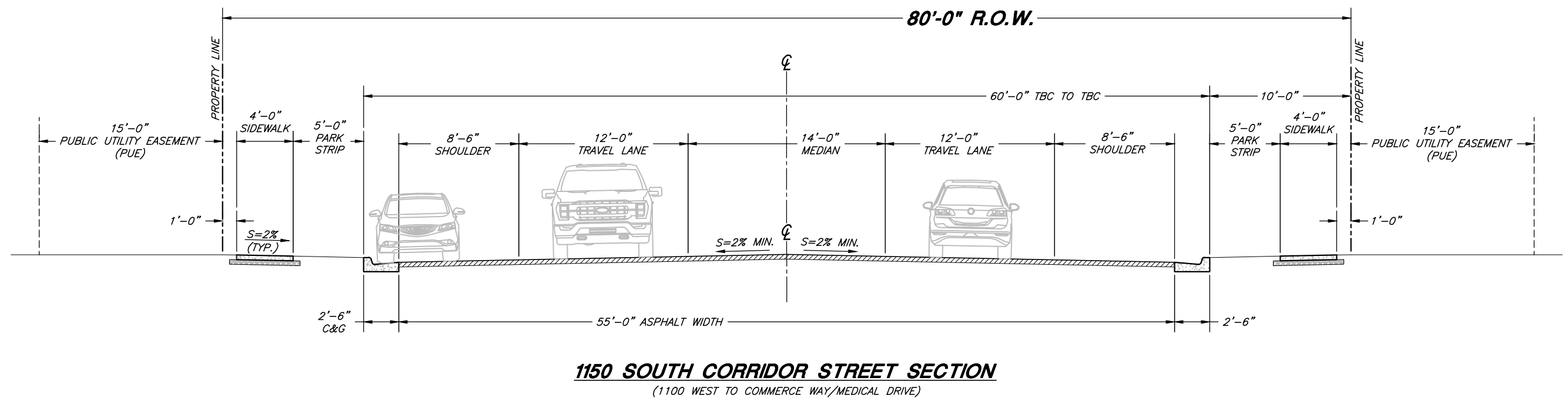
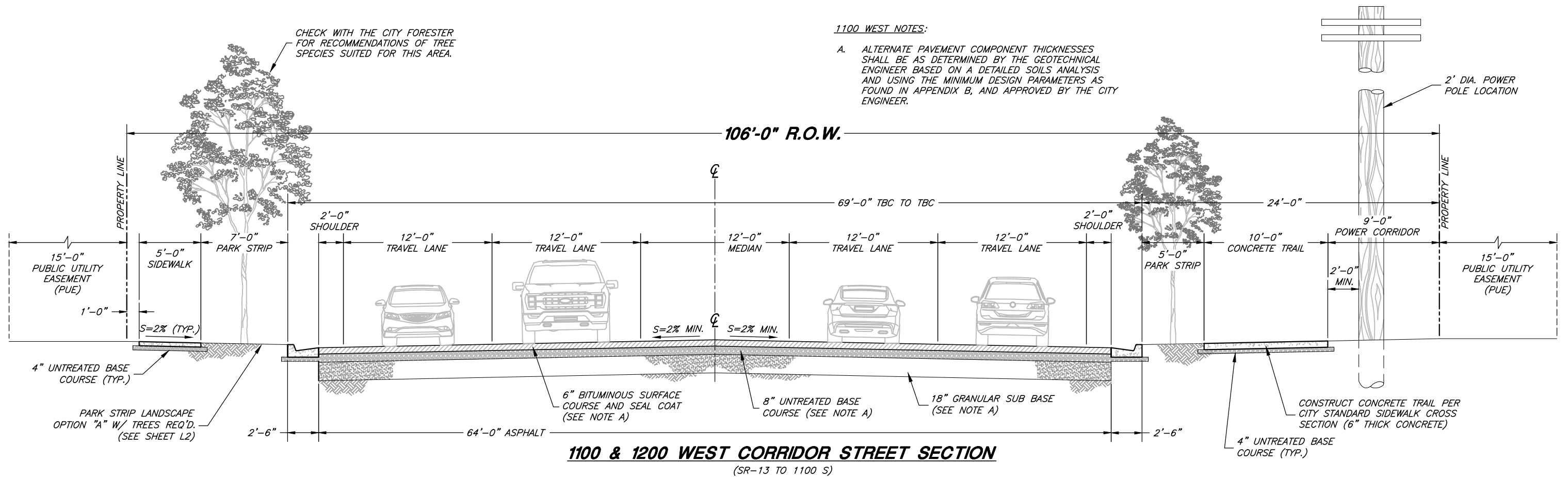
CONSULTING ENGINEERS
6080 Fashion Point Drive
South Ogden, Utah 84403 (801) 476-9767
www.jonescivil.com



PUBLIC WORKS

BRIGHAM CITY CORPORATION
PUBLIC WORKS - ROAD IMPROVEMENT STANDARDS
LOW IMPACT STREET AND
400 SOUTH CORRIDOR STREET SECTIONS

SHEET:
R2
OF 45 SHEETS
0



Brett M. Jones
CITY ENGINEER
12/15/2022
DATE

REV.	DATE

SCALE:
N.T.S.

DESIGNED _____
DRAWN _____
CHECKED _____



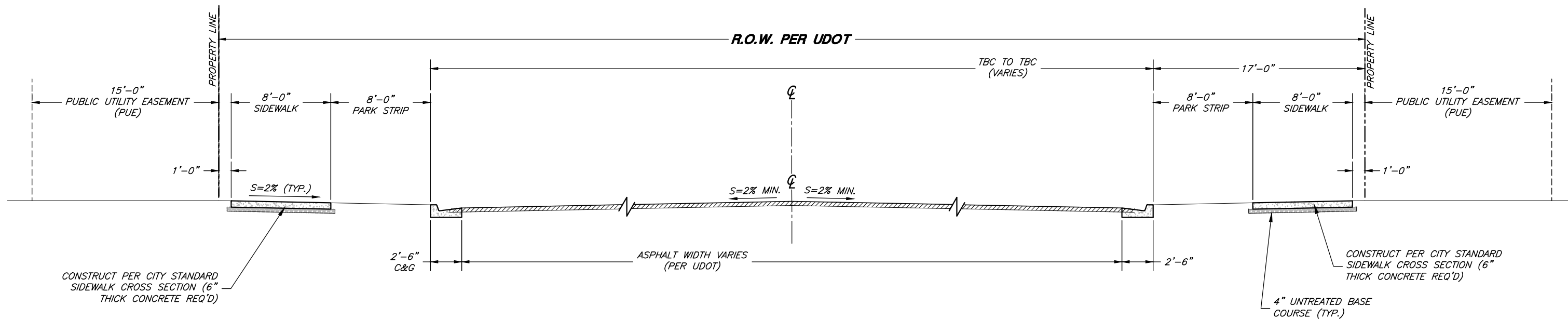
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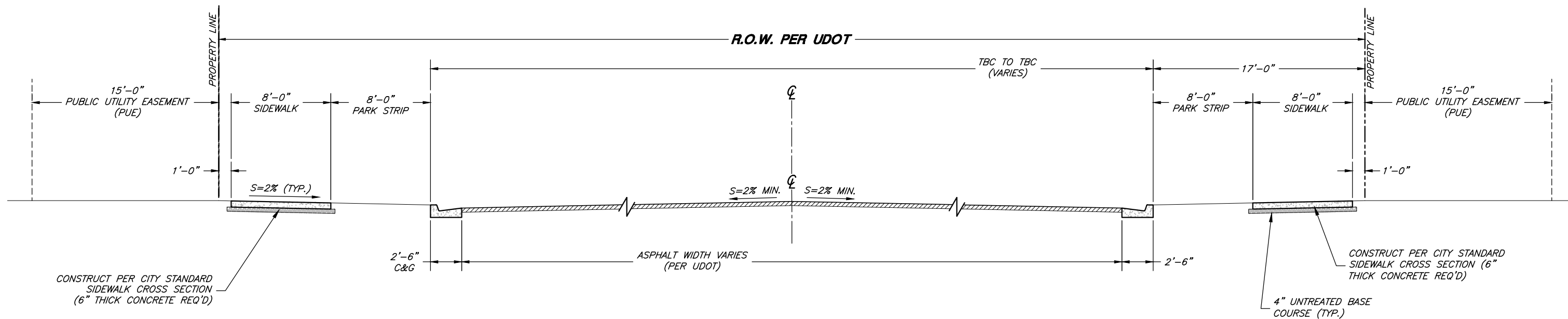
PUBLIC WORKS

BRIGHAM CITY CORPORATION
PUBLIC WORKS - ROAD IMPROVEMENT STANDARDS
1100 & 1200 WEST STREETS AND
1150 SOUTH CORRIDOR STREET SECTIONS

SHEET:
R3
OF 45 SHEETS
0



SR-13 CORRIDOR STREET SECTION



MAIN STREET CORRIDOR STREET SECTION

(900 NORTH TO THE NORTH CITY BOUNDARY)



Brett M. Jones
CITY ENGINEER
12/15/2022
DATE

REV.	DATE

SCALE:
N.T.S.

DESIGNED _____
DRAWN _____
CHECKED _____



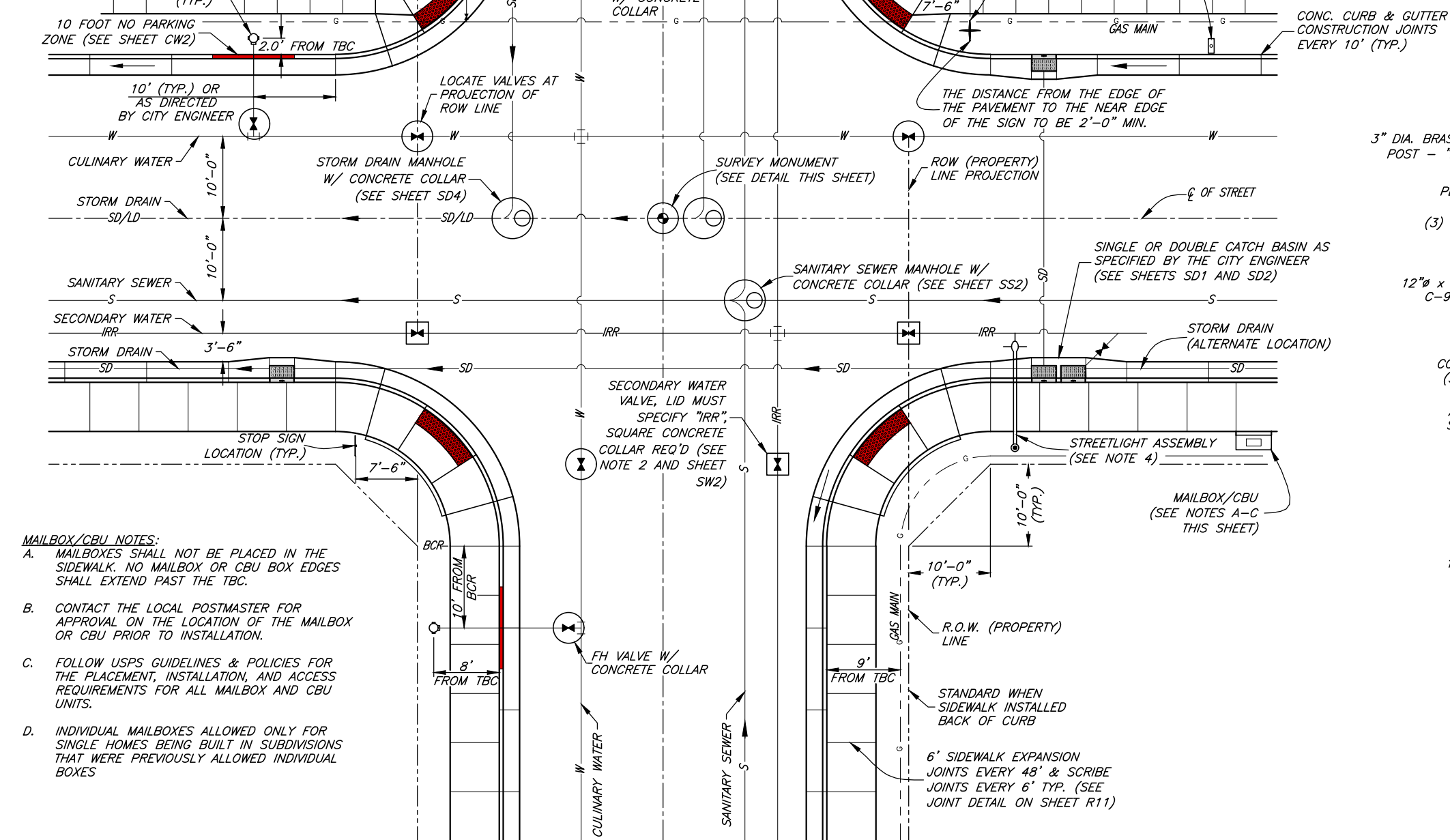
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PUBLIC WORKS

BRIGHAM CITY CORPORATION	
PUBLIC WORKS - ROAD IMPROVEMENT STANDARDS	
SR-13 AND MAIN STREET CORRIDOR STREET SECTIONS	
SHEET:	R4
OF 45 SHEETS	0

- ①. EXACT LOCATION OF STREET AND REGULATORY SIGNS SHALL BE SPECIFIED BY THE PUBLIC WORKS DEPARTMENT.
- ②. THE NUMBER OF SECONDARY WATER VALVES REQUIRED AT EACH INTERSECTION SHALL BE DETERMINED BY THE CITY ENGINEER.
- ③. CITY UTILITY LINES MUST BE LOCATED IN A PUBLIC RIGHT-OF-WAY. NO CITY UTILITIES MAY BE CONSTRUCTED ON PRIVATE PROPERTY. ANY UTILITY LINES MAINTAINED BY THE CITY MUST ALSO BE IN A PUBLIC RIGHT-OF-WAY.
- ④. THE NUMBER OF REQUIRED LIGHT POLES, FIXTURE TYPE AND LOCATION IS DETERMINED BY THE BRIGHAM CITY PUBLIC POWER DEPARTMENT. CONTACT PUBLIC POWER FOR THE CURRENT LIGHT POLE STANDARDS AND INSTALLATION REQUIREMENTS.



- A. MAILBOXES SHALL NOT BE PLACED IN THE SIDEWALK. NO MAILBOX OR CBU BOX EDGES SHALL EXTEND PAST THE TBC.
- B. CONTACT THE LOCAL POSTMASTER FOR APPROVAL ON THE LOCATION OF THE MAILBOX OR CBU PRIOR TO INSTALLATION.
- C. FOLLOW USPS GUIDELINES & POLICIES FOR THE PLACEMENT, INSTALLATION, AND ACCESS REQUIREMENTS FOR ALL MAILBOX AND CBU UNITS.
- D. INDIVIDUAL MAILBOXES ALLOWED ONLY FOR SINGLE HOMES BEING BUILT IN SUBDIVISIONS THAT WERE PREVIOUSLY ALLOWED INDIVIDUAL BOXES

3" DIA. BRASS SURVEY MONUMENT POST - "D&L SUPPLY" K-9090

PEA GRAVEL SUMP

(3) #5 REBAR ASTM A615 GRADE 60

12"Ø x 9 3/4" LONG P.V.C. C-900 PIPE SECTION

CONCRETE COLLAR (SEE SHEET R11)

ASPHALT SURFACE

ROAD BASE

12"Ø x 9 3/4" LONG P.V.C. C-900 PIPE SECTION

WASHED PEA GRAVEL

CONCRETE BASE CLASS 4000 CONCRETE per APWA SECTION 03 30 04

(3) #5 REBAR ASTM A615 GRADE 60

10-1/2"Ø

"D&L SUPPLY" MODEL K-6313 MONUMENT RING & COVER

3" DIA. BRASS SURVEY MONUMENT POST - "D&L SUPPLY" K-9090

5"

7"

18" MIN

9"

BACKFILL ALL SIDES (COMPACT per APWA SECTION 31 23 26)

COMPACT BOTTOM OF EXCAVATED HOLE BEFORE PLACING MONUMENT POST

REGISTERED PROFESSIONAL ENGINEER
No. 5149637
Brett Marsden
Jones
State of Utah

Brett M. Jones
CITY ENGINEER
12/15/2022
DATE

SCALE:

N.T.S.

DESIGNED _____
DRAWN _____
CHECKED _____



CONSULTING ENGINEERS
6080 Fashion Point Drive
South Ogden, Utah 84403 (801) 476-9767
www.jonescivil.com

PUBLIC
WORKS

BRIGHAM CITY CORPORATION
PUBLIC WORKS - ROAD IMPROVEMENT STANDARDS
TYPICAL STREET INTERSECTION
& STREET MONUMENT DETAILS

SHEET:
25
SHEETS
0

1. *IN NEW SUBDIVISIONS WHERE FUTURE DRIVEWAY LOCATIONS ARE UNKNOWN, THE DRIVEWAY APPROACH SHALL BE MADE BY SAW CUTTING THE BACK OF THE EXISTING CURB TO THE REQUIRED DRIVEWAY WIDTH. ALL SAW CUTTING SHALL BE ACCOMPLISHED BY A CITY APPROVED LICENSED CONTRACTOR.*
2. *SCORE SIDEWALK $\frac{1}{4}$ " OF SIDEWALK THICKNESS AT EACH 4'-0" OR 6'-0" SECTION. EXPANSION JOINTS AT EACH 32'-0" (4'-0" SIDEWALK) OR 48'-0" (6'-0" SIDEWALK), PROVIDE ADDITIONAL CONTRACTION JOINTS ON OVERSIZED DRIVEWAYS AT 5'-0" MAX. SPACING.*
3. *FOR EACH SINGLE FAMILY OR TWO-FAMILY DWELLINGS, NOT MORE THAN TWO (2) APPROACHES SHALL BE ALLOWED, EXCEPT CORNER AND DOUBLE FRONTAGE LOTS, WHICH SHALL BE ALLOWED (3) APPROACHES. SEPARATION BETWEEN APPROACHES SHALL HAVE MINIMUM SEPARATION OF TWELVE (12) FEET MEASURED AT THE PROPERTY LINE.*
4. *THE COMBINED WIDTH OF ALL APPROACHES SERVING A LOT SHALL NOT EXCEED FIFTY (50) PERCENT OF THE LOT FRONTAGE.*
5. *APPROACHES SHALL NOT BE ALLOWED ON CORNER LOTS WITHIN THE CLEAR VIEW AREA AS DESCRIBED IN CITY CODE.*
6. *SHARED ACCESS: TO REDUCE AND LIMIT THE NUMBER OF POINTS OF ACCESS ALONG CITY STREETS, SHARED ACCESS BETWEEN ADJOINING PARCELS IS STRONGLY ENCOURAGED. THE DIRECTOR OF PUBLIC WORKS OR HIS DESIGNEE OR PLANNING COMMISSION, WHICHEVER IS APPLICABLE MAY REQUIRE A SHARED ACCESS AS A CONDITION OF PROJECT APPROVAL. WHEN A SHARED ACCESS IS USED THE ADJACENT PROPERTY OWNERS SHALL:*

-

[illegible]

A technical cross-section drawing of a concrete curb and gutter. The drawing shows a concrete curb on the left, a gutter in the center, and a concrete sidewalk on the right. The gutter has a 5' radius to its outer edge. The sidewalk has a 4'-0" minimum width. The curb and gutter are separated by a 1" lip at the flowline. The drawing includes labels for "CONCRETE SIDEWALK", "PROPERTY LINE", "EXPANSION JOINTS", "CURB & GUTTER", and "CITY ENGINEER". Dimensions include "10' MIN. (RESIDENTIAL)", "36' MAX. (RESIDENTIAL)", "50' MAX. (COMMERCIAL-EXCEPT STATE HIGHWAY)", and "AS APPR. BY U.D.O.T. (STATE HWY)".

CONCRETE SIDEWALK
 PROPERTY LINE
 4'-0" MIN. SIDEWALK
 1/2" EXPANSION JOINTS
 5'-0" MIN. UNLESS OTHERWISE APPROVED BY CITY ENGINEER
 PROPERTY LINE EXTENSION
 10' MIN. (RESIDENTIAL)
 36' MAX. (RESIDENTIAL)
 50' MAX. (COMMERCIAL-EXCEPT STATE HIGHWAY)
 AS APPR. BY U.D.O.T. (STATE HWY)
 5' RADIUS TO EBC
 MAINTAIN 1" LIP AT FLOWLINE
 CURB & GUTTER

(FOR REPLACEMENTS ONLY – NO NEW CONSTRUCTION)

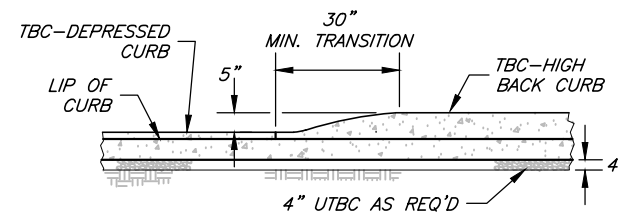


Diagram illustrating the plan view of a curb and gutter section, showing dimensions and labels:

- CONCRETE SIDEWALK**: Indicated by a dashed line.
- PROPERTY LINE**: Indicated by a dashed line.
- 4'-0" MIN. SIDEWALK**: Dimension indicating the minimum sidewalk width.
- 1/2" EXPANSION JOINTS**: Indicated by arrows pointing to the joints in the sidewalk.
- 10' MIN. (RESIDENTIAL) 36' MAX. (RESIDENTIAL) 50' MAX. (COMMERCIAL-EXCEPT STATE HIGHWAY) AS APPR. BY U.D.O.T. (STATE HWY)**: Dimension indicating the maximum length of the curb and gutter section.
- 5'-0" MIN. UNLESS OTHERWISE APPROVED BY CITY ENGINEER**: Dimension indicating the minimum length of the curb and gutter section.
- R EXTENSION**: Indicated by an arrow pointing to the extension of the curb and gutter.
- MAINTAIN 1" LIP AT FLOWLINE**: Label indicating the requirement for a 1-inch lip at the flowline.
- CURB & GUTTER**: Label indicating the curb and gutter section.
- 30" MIN.**: Dimension indicating the minimum width of the curb and gutter section.
- P DOWN TYPE BOTH (SEE DETAIL THIS SHEET)**: Label indicating the type of curb and gutter.

DROP DOWN STYLE (CITY STANDARD)

DDOT	PER ACCESS PERMIT
1100 W 1100 S	500' 500'

* AS PER CURRENT STREETS MASTER PLAN

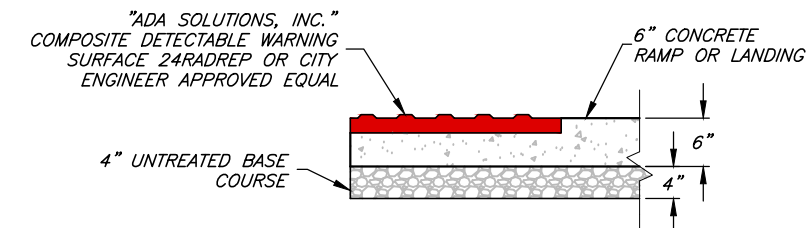
MINIMUM ACCESS DISTANCE

STREET

TBC

(A). THE MINIMUM ACCESS DISTANCE (DRIVE APPROACH TO THE NEAREST CONNECTING STREET T.B.C.) SHALL BE AS DESCRIBED IN THE DETAIL AND TABLE ABOVE.

1. LOCATE THE DETECTABLE WARNING SURFACE SO THE OUTSIDE CORNER NEAREST THE STREET IS WITHIN 1 INCH OF THE BACK OF CURB (TBC). PROVIDE 2-FOOT MINIMUM DEPTH.
2. PROVIDE DETECTABLE WARNING SURFACE FOR FULL WIDTH OF CURB CUT.
3. THE DETECTABLE WARNING SURFACE DOMES SHALL BE ORIENTED SUCH THAT THE ROWS ARE PARALLEL WITH THE DIRECTION OF PEDESTRIAN TRAVEL TO THE RAMP ON THE OPPOSITE SIDE OF THE STREET.
4. THE STANDARD COLOR FOR THE DETECTABLE WARNING SURFACE SHALL BE RED OR PRE-APPROVED CONTRASTING COLOR. WHEN THE EXISTING SIDEWALK COLOR IS NOT STANDARD CONCRETE, THE COLOR OF THE DETECTABLE WARNING SURFACE SHALL BE DETERMINED BY THE CITY ENGINEER OR AUTHORIZED REPRESENTATIVE.
5. WHEN A DETECTABLE WARNING SURFACE DOME IS CUT, THE REMAINING PORTION OF THE DOME SHALL BE BEVELED TO A MAXIMUM SLOPE OF 1:2.

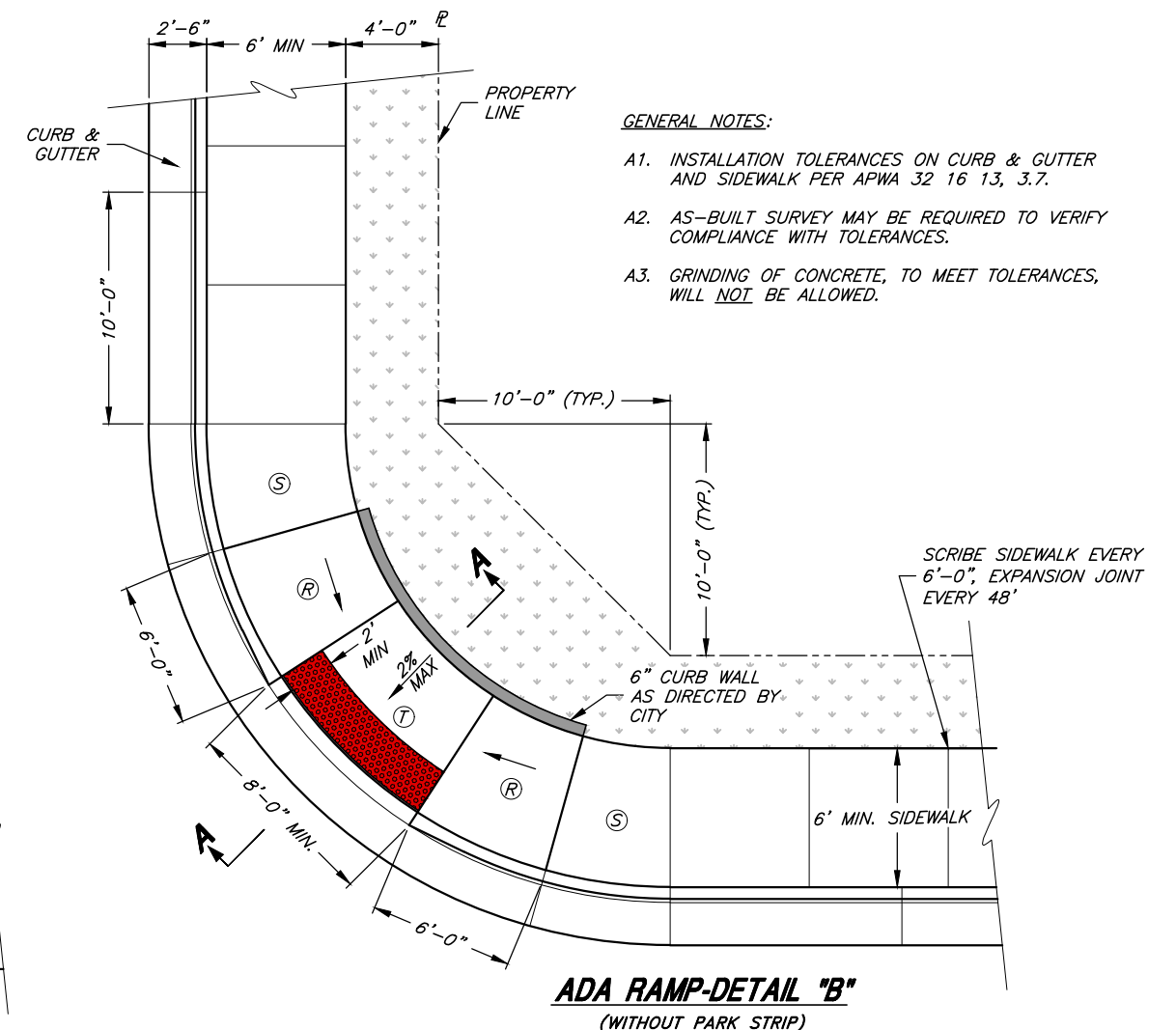
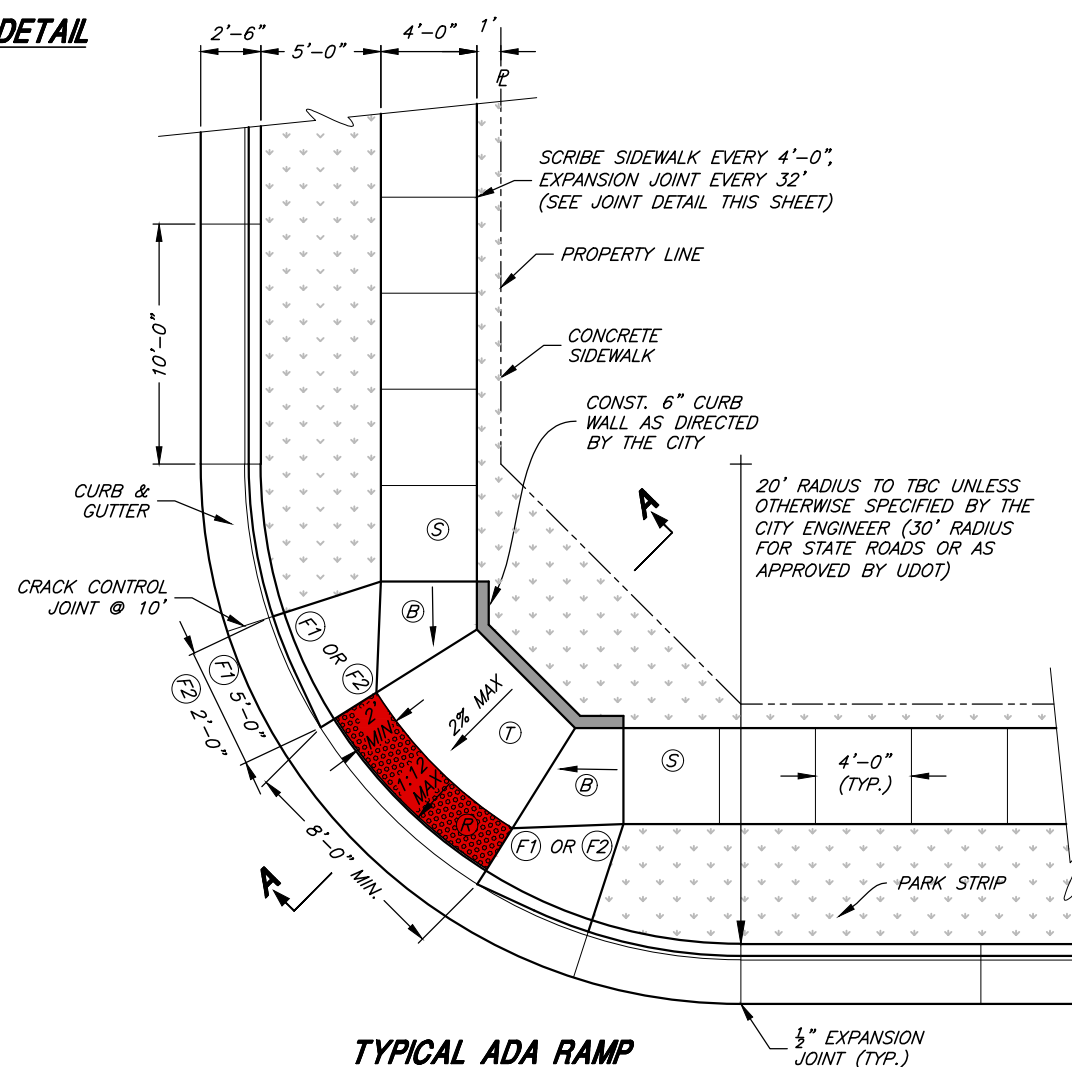
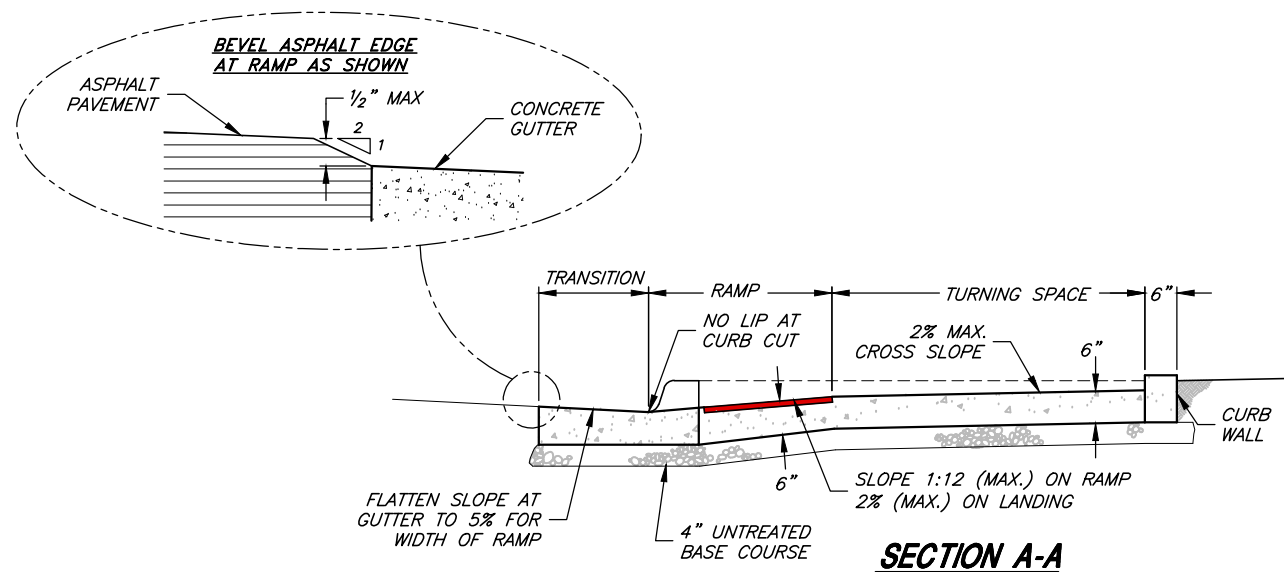


ADA RAMP NOTES:

- A. WHERE DESIGNATED BY THE CITY, ALTERNATE UDOT OR APWA RAMP DESIGNS MAY BE USED WITH THE PRIOR APPROVAL OF THE CITY ENGINEER AND THE CITY PUBLIC WORKS DEPARTMENT. SUBMIT ENGINEERED CONSTRUCTION PLANS TO CITY ENGINEER FOR REVIEW AND ACCEPTANCE PRIOR TO CONSTRUCTION.
- B. SITE CONDITIONS WILL VARY. CONFIGURATION OF RAMP, LANDING, AND TRANSITION MAY BE CHANGED, BUT THEY MUST MEET DIMENSIONS AND SLOPES AS SHOWN IN THE MOST RECENT EDITION OF THE U.D.O.T. STANDARDS & SPECIFICATIONS SHEETS PA1 THROUGH PA5. THE USE OF FLARES, CURB WALLS, ETC. ARE AT THE DISCRETION OF THE ENGINEER.
- C. LOCATE CURB CUT WITHIN CROSSWALK.
- D. RAMP GRADE BREAK MUST BE PERPENDICULAR TO THE RUNNING SLOPE.
- E. A 5'x5' PASSING AREA MUST BE PROVIDED AT A MINIMUM SPACING OF 200' WHEN NO OTHER FEATURES MEET ADA PASSING ZONE REQUIREMENTS.

SLOPE TABLE			
	ITEM	MAX RUNNING SLOPE*	MAX. CROSS SLOPE*
(T)	TURNING SPACE ²	2% (1V:48H)	2% (1V:48H)
(R)	RAMP	8.3% (1V:12H)	2% (1V:48H)
(S)	SIDEWALK	5% (1:20) ¹	2% (1V:48H)
(F1)	TRAVERSABLE SURFACE	10% (1V:10H)	--
(F2)	NON-TRAVERSABLE SURFACE	25% (1V:4H)	--
(B)	BLENDED TRANSITION	5% (1V:20H) 2% MIN.	2% (1V:48H)

² NOT TO EXCEED 2% IN ANY DIRECTION



GENERAL NOTES:

- A1. *INSTALLATION TOLERANCES ON CURB & GUTTER AND SIDEWALK PER APWA 32 16 13, 3.7.*
- A2. *AS-BUILT SURVEY MAY BE REQUIRED TO VERIFY COMPLIANCE WITH TOLERANCES.*
- A3. *GRINDING OF CONCRETE, TO MEET TOLERANCES, WILL NOT BE ALLOWED.*

Brett M. Jones
CITY ENGINEER
12/15/2022
DATE

SCALE:

N.T.S.

DESIGNED _____
DRAWN _____
CHECKED _____



CONSULTING ENGINEERS
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PUBLIC
WORKS

BRIGHAM CITY CORPORATION
PUBLIC WORKS - ROAD IMPROVEMENT STANDARDS

TYPICAL ADA RAMP DETAILS

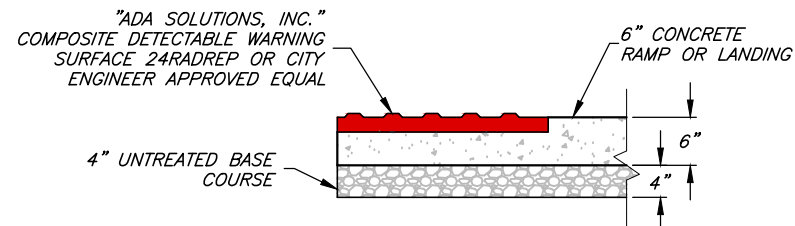
ET:

7

SHEETS

DETECTABLE WARNING SURFACE NOTES:

1. LOCATE THE DETECTABLE WARNING SURFACE SO THE OUTSIDE CORNER NEAREST THE STREET IS WITHIN 1 INCH OF THE BACK OF CURB (TBC). PROVIDE 2-FOOT MINIMUM DEPTH.
2. PROVIDE DETECTABLE WARNING SURFACE FOR FULL WIDTH OF CURB CUT.
3. THE DETECTABLE WARNING SURFACE DOMES SHALL BE ORIENTED SUCH THAT THE ROWS ARE PARALLEL WITH THE DIRECTION OF PEDESTRIAN TRAVEL TO THE RAMP ON THE OPPOSITE SIDE OF THE STREET.
4. THE STANDARD COLOR FOR THE DETECTABLE WARNING SURFACE SHALL BE RED OR PRE-APPROVED CONTRASTING COLOR. WHEN THE EXISTING SIDEWALK COLOR IS NOT STANDARD CONCRETE, THE COLOR OF THE DETECTABLE WARNING SURFACE SHALL BE DETERMINED BY THE CITY ENGINEER OR AUTHORIZED REPRESENTATIVE.
5. WHEN A DETECTABLE WARNING SURFACE DOME IS CUT, THE REMAINING PORTION OF THE DOME SHALL BE BEVELED TO A MAXIMUM SLOPE OF 1:2.



DETECTABLE WARNING SURFACE DETAIL

ADA RAMP NOTES:

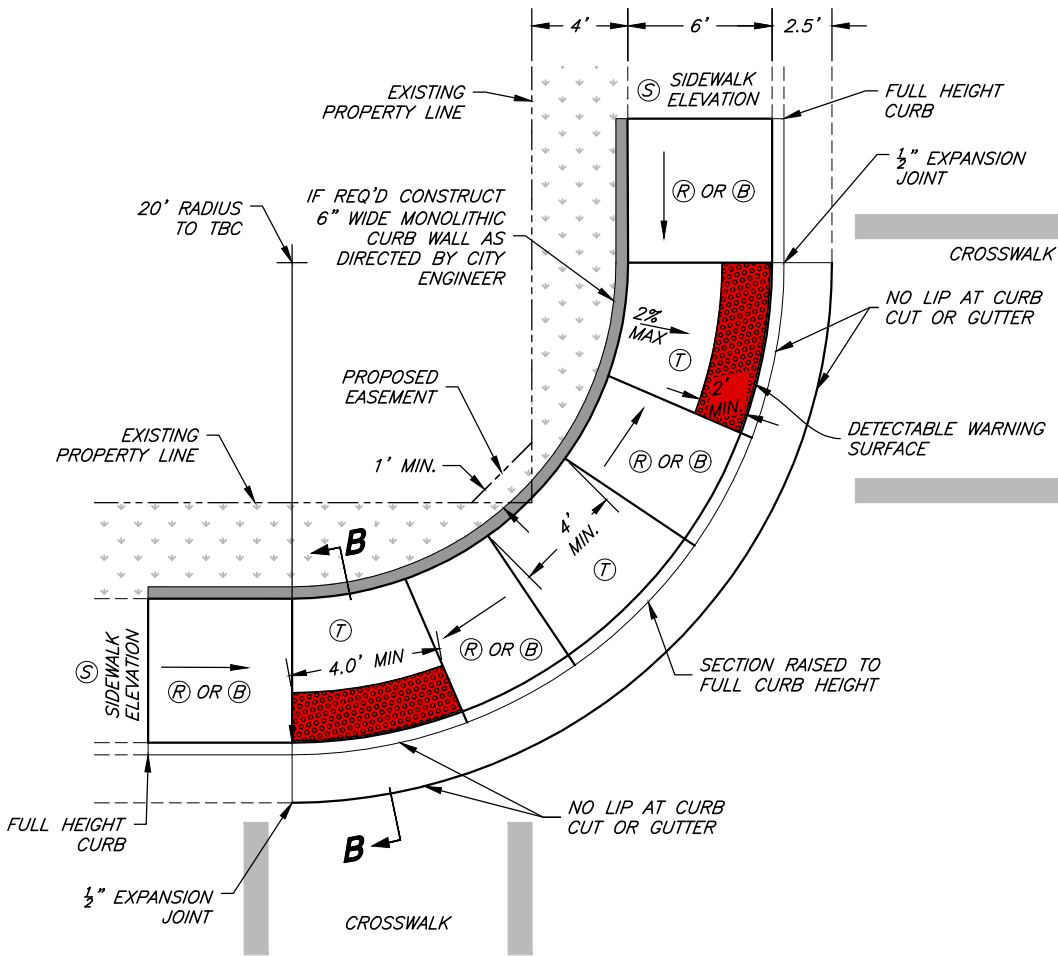
- A. WHERE DESIGNATED BY THE CITY, ALTERNATE UDOT OR APWA RAMP DESIGNS MAY BE USED WITH THE PRIOR APPROVAL OF THE CITY ENGINEER AND THE CITY PUBLIC WORKS DEPARTMENT. SUBMIT ENGINEERED CONSTRUCTION PLANS TO CITY ENGINEER FOR REVIEW AND ACCEPTANCE PRIOR TO CONSTRUCTION.
- B. SITE CONDITIONS WILL VARY. CONFIGURATION OF RAMP, LANDING, AND TRANSITION MAY BE CHANGED, BUT THEY MUST MEET DIMENSIONS AND SLOPES AS SHOWN IN THE MOST RECENT EDITION OF THE U.D.O.T. STANDARDS & SPECIFICATIONS SHEETS PA1 THROUGH PA5. THE USE OF FLARES, CURB WALLS, ETC. ARE AT THE DISCRETION OF THE ENGINEER.
- C. LOCATE CURB CUT WITHIN CROSSWALK.
- D. RAMP GRADE BREAK MUST BE PERPENDICULAR TO THE RUNNING SLOPE.

SLOPE TABLE			
	ITEM	MAX RUNNING SLOPE*	MAX. CROSS SLOPE*
T	TURNING SPACE ²	2% (1V:48H)	2% (1V:48H)
R	RAMP	8.3% (1V:12H)	2% (1V:48H)
S	SIDEWALK	5% (1:20) ¹	2% (1V:48H)
F1	TRAVERSABLE SURFACE	10% (1V:10H)	--
F2	NON-TRAVERSABLE SURFACE	25% (1V:4H)	--
B	BLENDED TRANSITION	5% (1V:20H) 2% MIN.	2% (1V:48H)

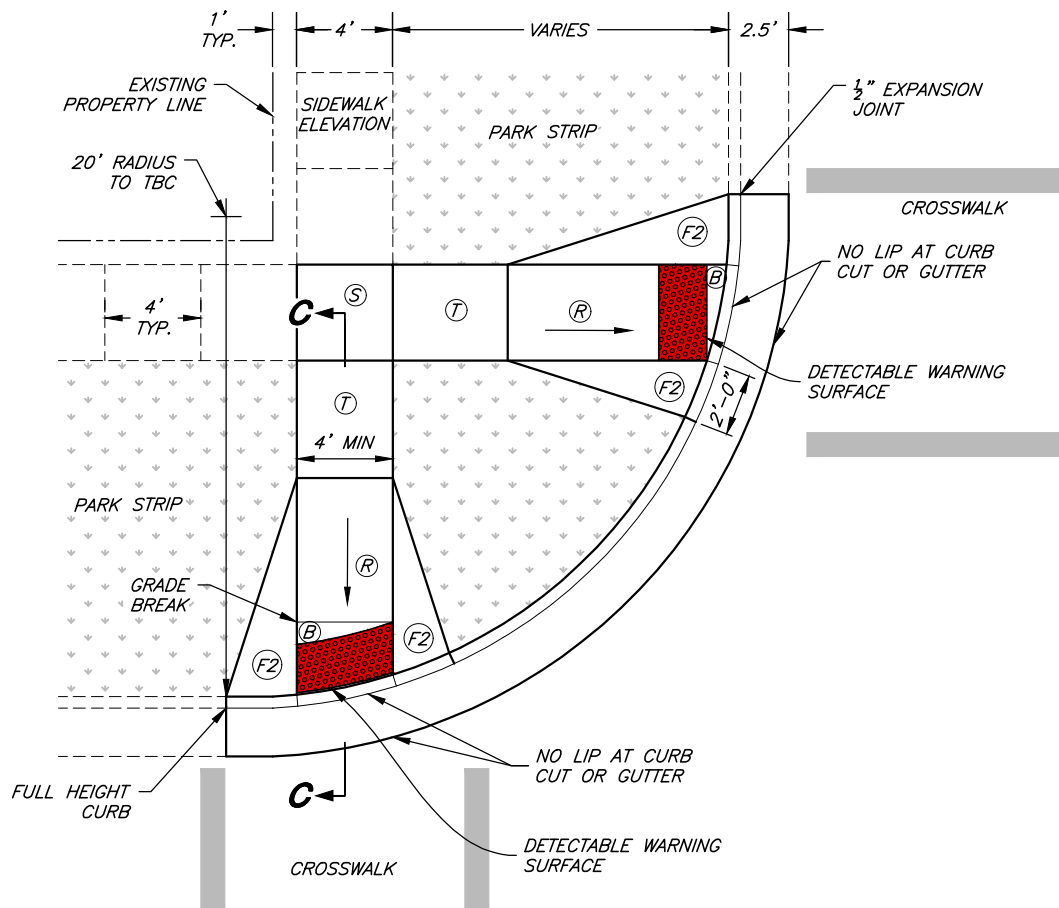
* RUNNING SLOPE IS IN THE DIRECTION OF PEDESTRIAN TRAVEL. CROSS SLOPE IS PERPENDICULAR TO PEDESTRIAN TRAVEL.

¹ 5% MAX OR NATURAL SLOPE OF LAND

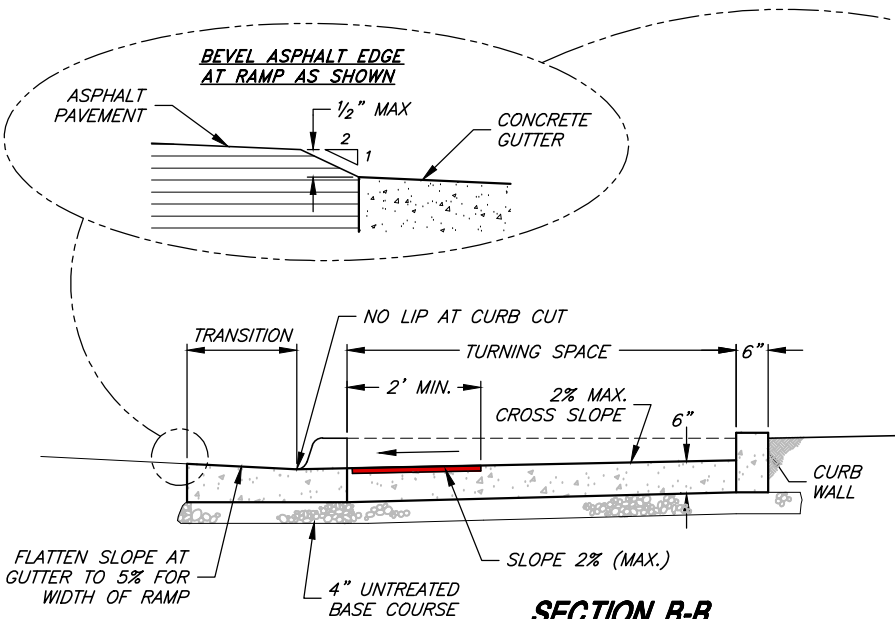
² NOT TO EXCEED 2% IN ANY DIRECTION



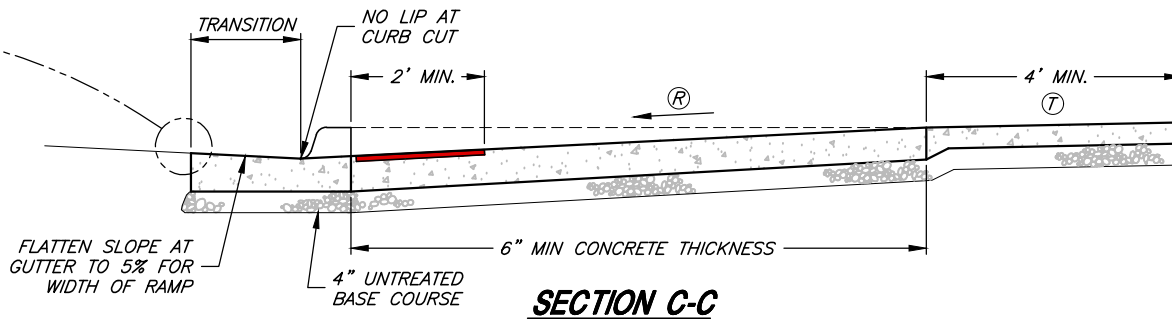
DOUBLE ADA RAMP
(NO PARK STRIP)



DOUBLE ADA RAMP



SECTION B-B



SECTION C-C

GENERAL NOTES:

- A1. INSTALLATION TOLERANCES ON CURB & GUTTER AND SIDEWALK PER APWA 32 16 13, 3.7.
- A2. AS-BUILT SURVEY MAY BE REQUIRED TO VERIFY COMPLIANCE WITH TOLERANCES.
- A3. GRINDING OF CONCRETE, TO MEET TOLERANCES, WILL NOT BE ALLOWED.



DESIGNED	_____
DRAWN	_____
CHECKED	_____

SCALE:
N.T.S.



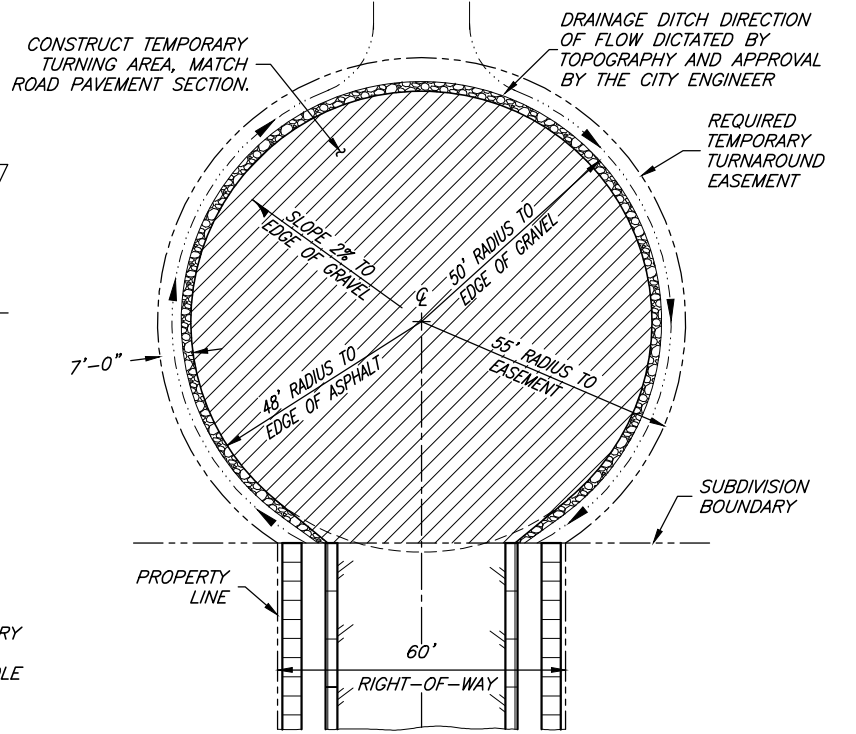
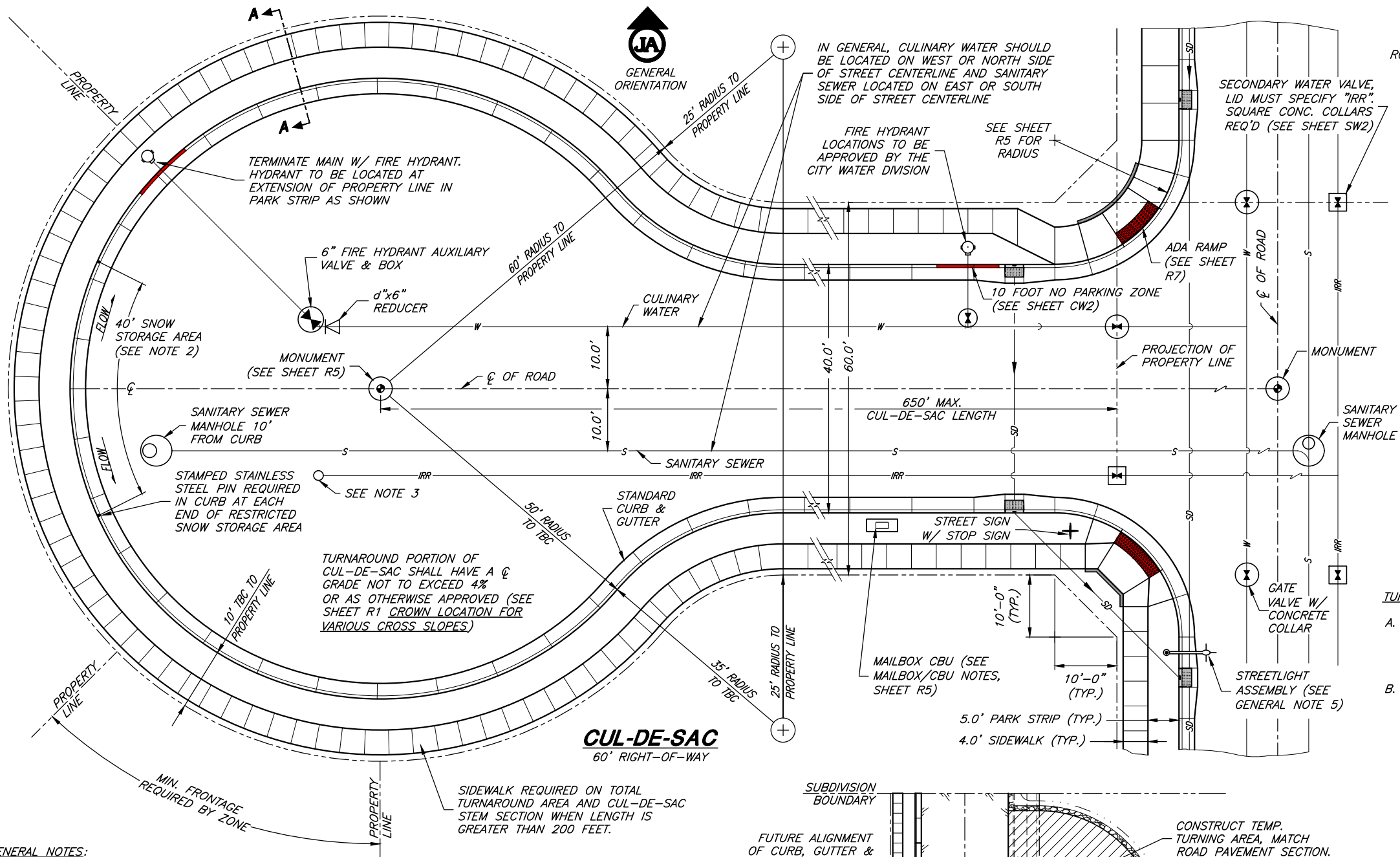
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PUBLIC WORKS

BRIGHAM CITY CORPORATION
PUBLIC WORKS - ROAD IMPROVEMENT STANDARDS
ALTERNATE ADA RAMP DETAILS

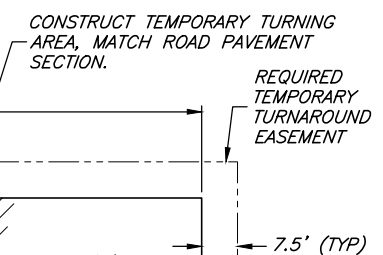
SHEET:
R8
OF 45 SHEETS
0



**CITY STANDARD
TEMPORARY TURNAROUND**
(FOR OUTSIDE OF SUBDIVISION BOUNDARY AND TO
BE MAINTAINED BY PROPERTY OR EASEMENT OWNER)

TURNAROUND NOTES:

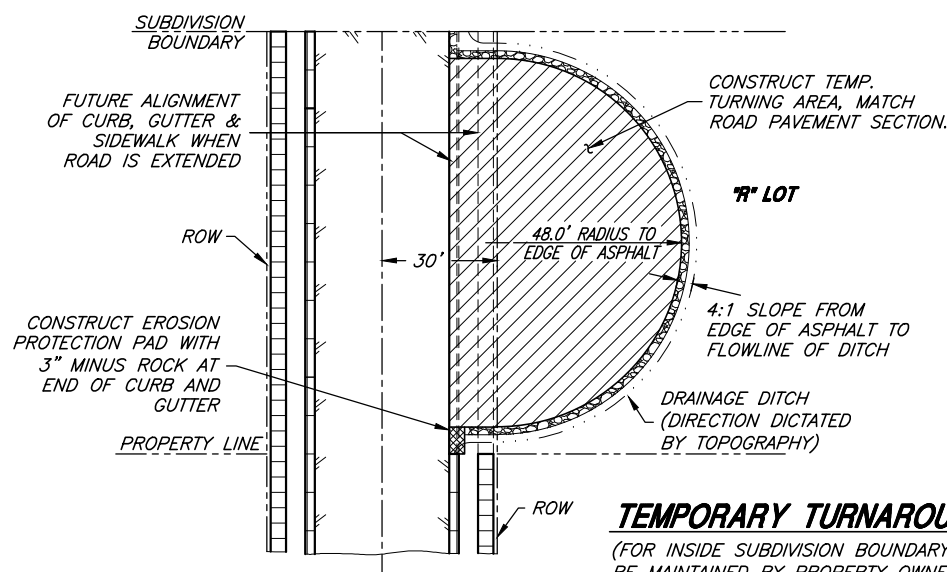
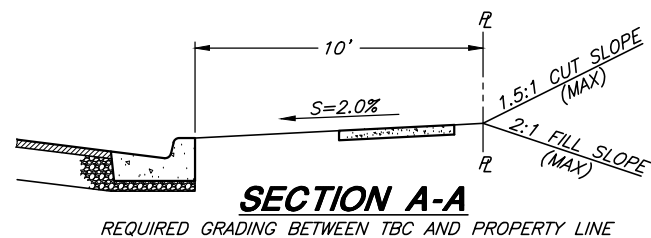
- THE DRAINAGE DITCH SHALL HAVE A 4 HORIZ. TO 1 VERT. (4:1) SIDE SLOPE FROM THE EDGE OF GRAVEL TO THE FLOW LINE OF DITCH.
- DRAINAGE DITCH MUST HAVE A MIN. GRADE OF 0.5%



ALTERNATE TEMPORARY TURNAROUND
120' HAMMERHEAD DETAIL

GENERAL NOTES:

- THE CIRCULAR CUL-DE-SAC LAYOUT ON THIS SHEET IS TO BE CONSIDERED AS THE CITY STANDARD DESIGN. OTHER ALTERNATE DESIGNS MAY BE CONSIDERED AS APPROVED BY THE CITY ENGINEER.
- NO DRIVEWAYS, FIRE HYDRANTS, OR MAIL BOXES ARE PERMITTED WITHIN THE SNOW STORAGE AREA. THE SNOW STORAGE AREA SHALL BE SHOWN ON THE IMPROVEMENT AND/OR CONSTRUCTION PLANS PRIOR TO SUBDIVISION AND/OR CUL-DE-SAC APPROVAL.
- DEVELOPER SHALL PROVIDE A SECONDARY WATER AIR RELIEF OR BLOW-OFF AS DETERMINED BY THE CITY ENGINEER.
- SIDEWALK CROSS-SLOPE VARIANCE FROM 2% AS APPROVED BY THE CITY ENGINEER
- THE NUMBER OF REQUIRED LIGHT POLES, FIXTURE TYPE AND LOCATION IS DETERMINED BY THE BRIGHAM CITY PUBLIC POWER DEPARTMENT. CONTACT PUBLIC POWER FOR THE CURRENT LIGHT POLE STANDARDS AND INSTALLATION REQUIREMENTS.



TEMPORARY TURNAROUND
(FOR INSIDE SUBDIVISION BOUNDARY TO
BE MAINTAINED BY PROPERTY OWNER)



Brett M. Jones
CITY ENGINEER
12/15/2022
DATE

REV.	DATE

SCALE:
N.T.S.

DESIGNED _____
DRAWN _____
CHECKED _____



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PUBLIC WORKS

BRIGHAM CITY CORPORATION
PUBLIC WORKS - ROAD IMPROVEMENT STANDARDS
CUL-DE-SAC & TEMPORARY TURNAROUND DETAILS

SHEET:
R9
OF 45 SHEETS
0

STREET SIGN NOTES:

- A. STREET SIGN BACKGROUND SHALL BE REGULATORY BLUE (STATE ROADS SHALL BE GREEN), BOTH STREET AND TRAFFIC SIGNS SHALL BE AT THE VERY LEAST HIGH INTENSITY REFLECTIVE SHEETING (9FP-85 TYPE IIIA)
- B. LEGEND SHALL BE WHITE LETTERS (FONT: HIGHWAY C), HIGH INTENSITY REFLECTIVE SHEETING (9FP-85 IIIA)
- C. SIGN BLANK SHALL BE 6081-T6 HEAT TREATED HIGH TENSILE DEGREASED ALUMINUM W/ ALODINE 1200 FINISH-THICKNESS SHALL BE 0.08"
- D. EACH SIGN SHALL CONSIST OF TWO PLATES RIVETED TOGETHER & MOUNTED AS SHOWN
- E. SIGNS ON PRIVATE ROADS SHALL MEET ALL SPECIFICATIONS FOR STANDARD SIGNS. (PRIVATE SIGNS WILL NOT BE MAINTAINED BY THE CITY.)
- F. ALL STREETS WITH NAMES MUST ALSO SHOW COORDINATE DESIGNATION
- G. ALL SIGNS SHALL CONFORM TO THE REQUIREMENTS OF THE CURRENT "MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES"

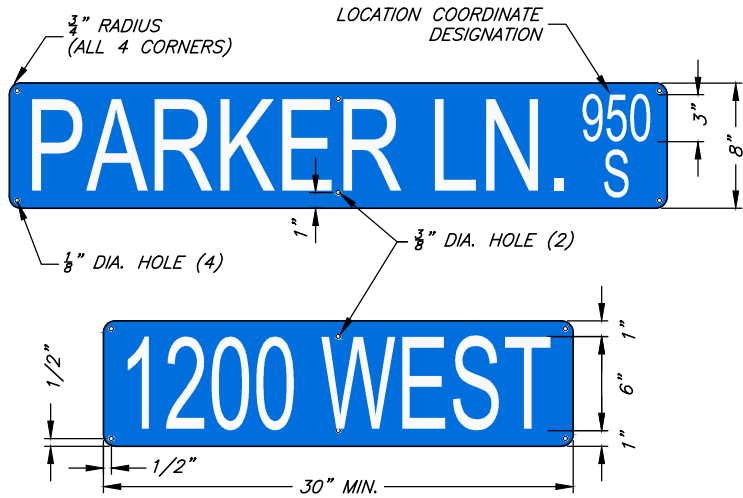
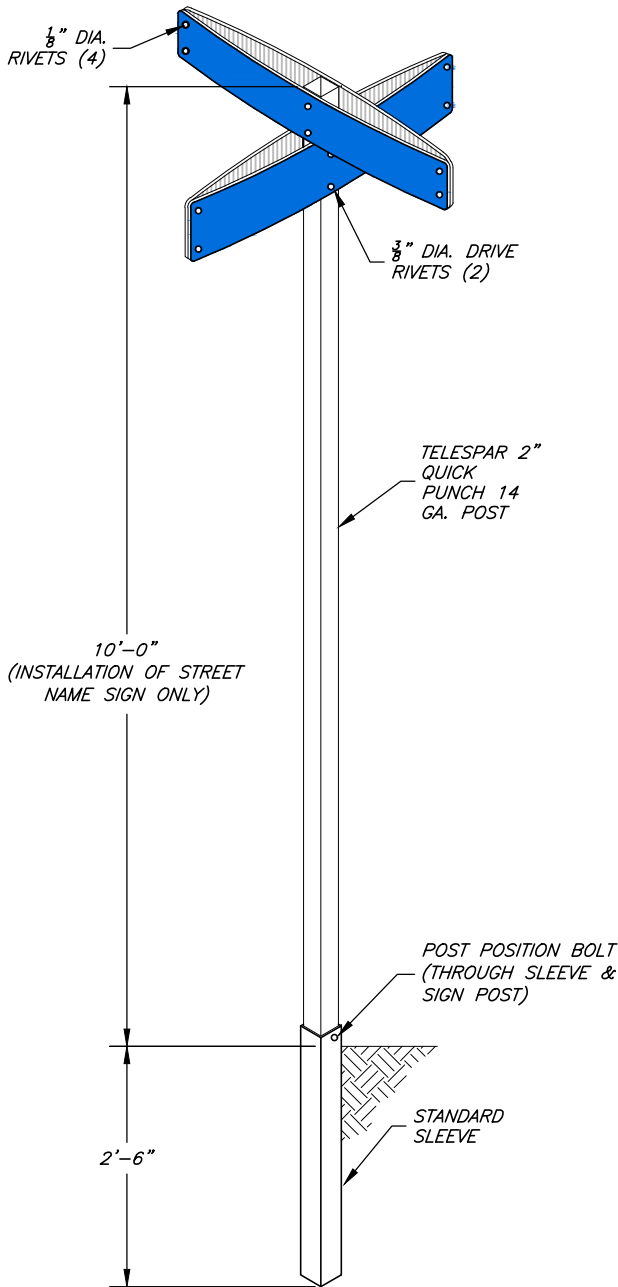
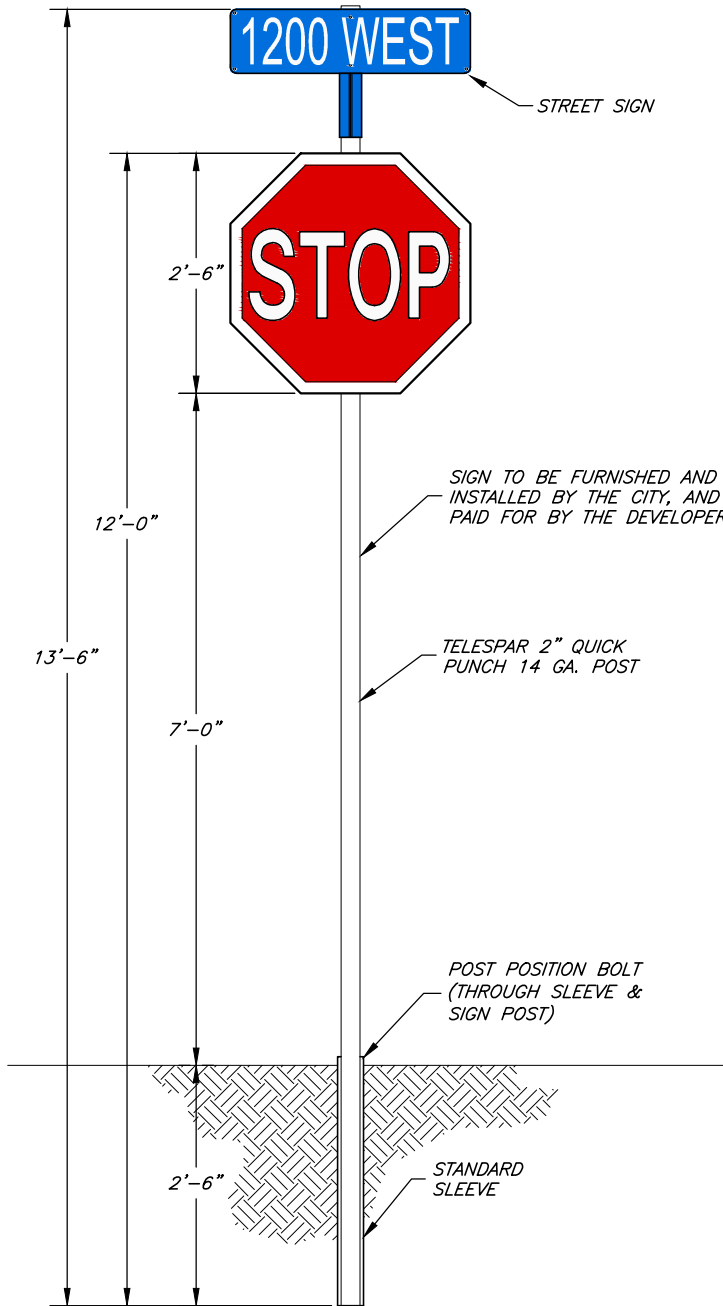


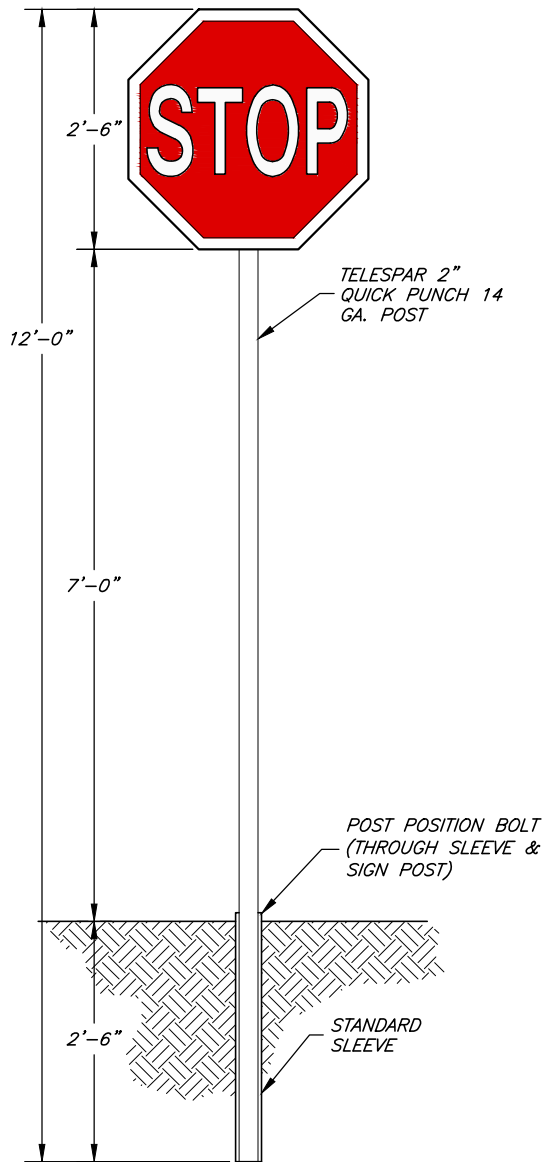
PLATE DETAIL



STREET SIGN & POST



STREET / TRAFFIC
SIGN & POST



TRAFFIC SIGN & POST



DESIGNED	_____
DRAWN	_____
CHECKED	_____
DATE	12/15/2022

SCALE:
N.T.S.



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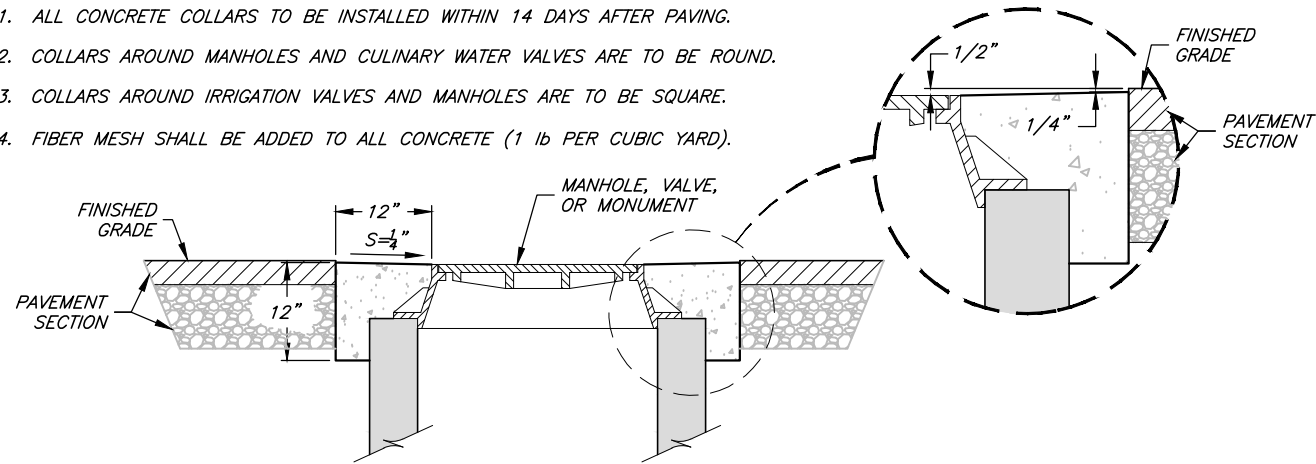
BRIGHAM CITY CORPORATION
PUBLIC WORKS - ROAD IMPROVEMENT STANDARDS

STREET SIGN DETAILS

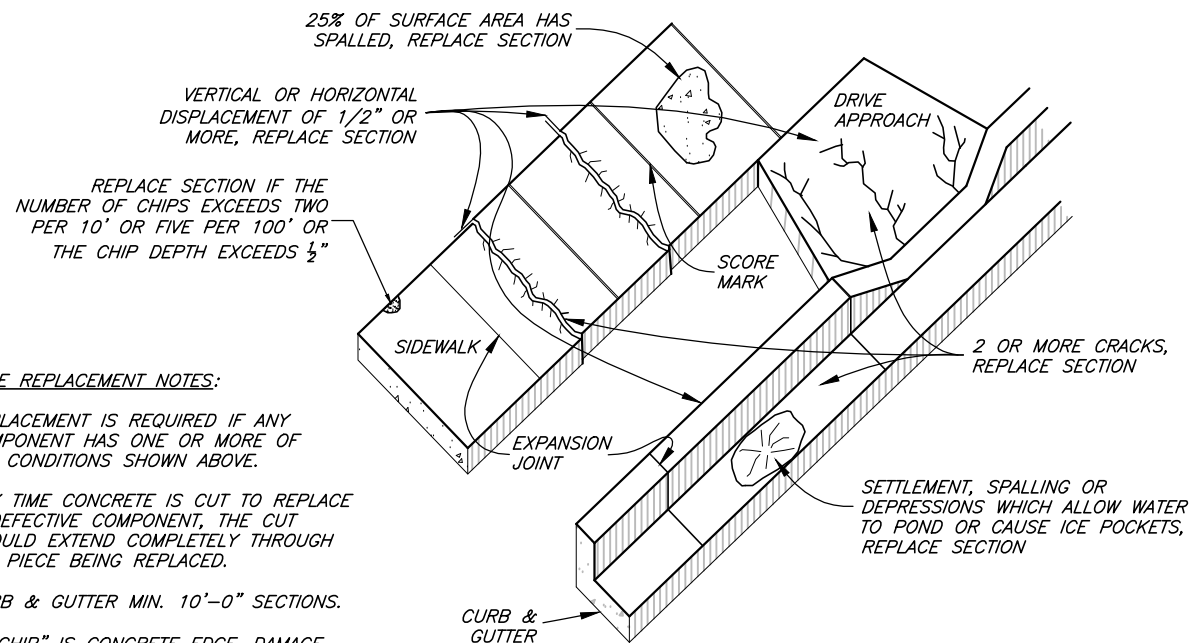
SHEET:
R10
OF 45 SHEETS
0

CONCRETE COLLAR NOTES:

- B1. ALL CONCRETE COLLARS TO BE INSTALLED WITHIN 14 DAYS AFTER PAVING.
B2. COLLARS AROUND MANHOLES AND CULINARY WATER VALVES ARE TO BE ROUND.
B3. COLLARS AROUND IRRIGATION VALVES AND MANHOLES ARE TO BE SQUARE.
B4. FIBER MESH SHALL BE ADDED TO ALL CONCRETE (1 lb PER CUBIC YARD).



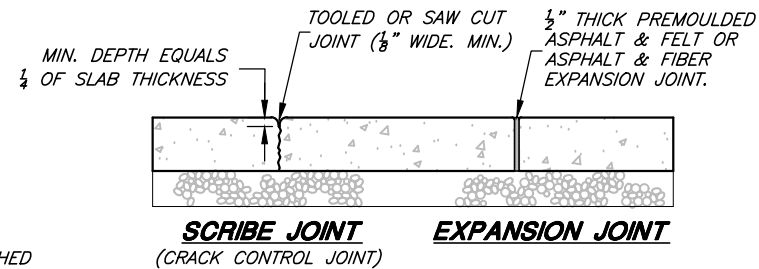
CONCRETE COLLAR DETAIL



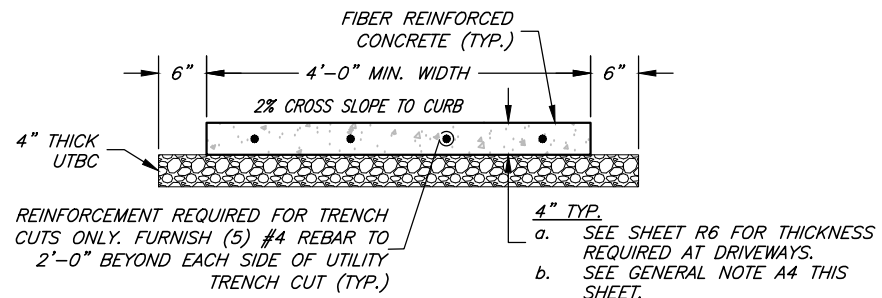
CONCRETE REPLACEMENT NOTES:

- A. REPLACEMENT IS REQUIRED IF ANY COMPONENT HAS ONE OR MORE OF THE CONDITIONS SHOWN ABOVE.
B. ANY TIME CONCRETE IS CUT TO REPLACE A DEFECTIVE COMPONENT, THE CUT SHOULD EXTEND COMPLETELY THROUGH THE PIECE BEING REPLACED.
C. CURB & GUTTER MIN. 10'-0" SECTIONS.
D. A "CHIP" IS CONCRETE EDGE DAMAGE THAT IS DEEPER THAN 1/4" AND LARGER THAN 2" DIA.

DEFECTIVE CONCRETE REPLACEMENT CRITERIA



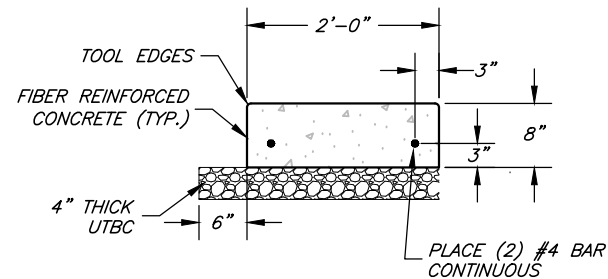
JOINT DETAIL



SIDEWALK SECTION
(CITY STANDARD)

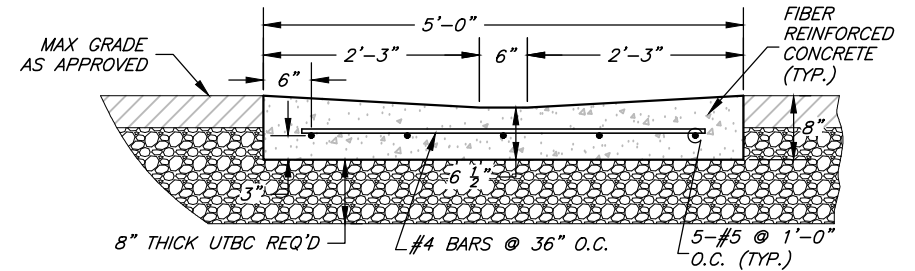
GENERAL NOTES:

- A1. INSTALLATION TOLERANCES ON CURB & GUTTER AND SIDEWALK PER APWA 32 16 13, 3.7.
A2. AS-BUILT SURVEY MAY BE REQUIRED TO VERIFY COMPLIANCE WITH TOLERANCES.
A3. GRINDING OF CONCRETE, TO MEET TOLERANCES, WILL NOT BE ALLOWED.
A4. CONCRETE SIDEWALK TO BE 6" THICK WHEN SIDEWALK IS 8'-0" OR GREATER IN WIDTH.

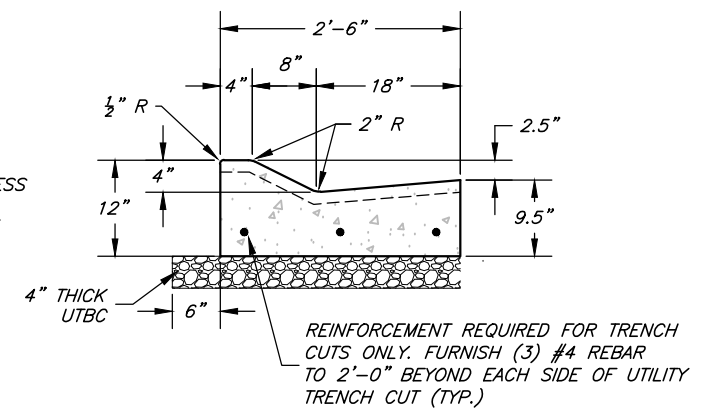


RIBBON
CURB & GUTTER SECTION

STANDARD FOR LOW IMPACT (RURAL) STREET SECTION
(CONCRETE EDGE FOR ASPHALT)

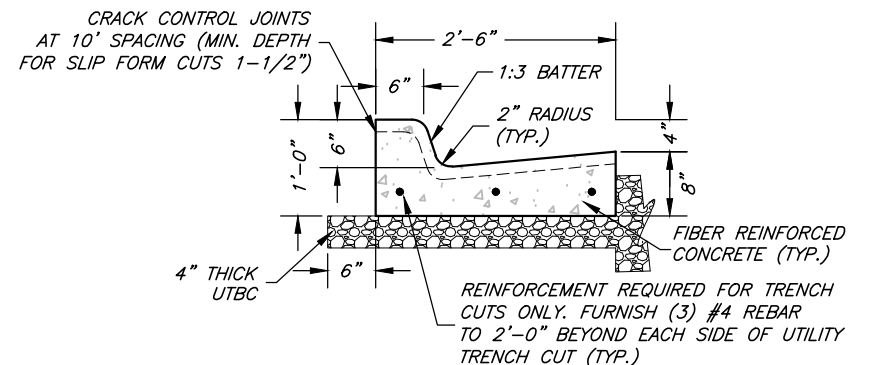


CROSS DRAIN SECTION
(FOR REPLACEMENTS ONLY - NO NEW CONSTRUCTION)



ROLL CURB & GUTTER SECTION

REQUIRES PRE-APPROVAL BY THE PUBLIC WORKS DEPARTMENT PRIOR TO CONSTRUCTION
(UDOT TYPE M1, APWA TYPE F)



CURB & GUTTER SECTION

(CITY STANDARD)

CURB & GUTTER NOTES:

1. WHEN REPLACING CURB DUE TO CONSTRUCTION ACTIVITY, NEW CURB MUST EXTEND 5' MIN. PAST TRENCH ON EACH SIDE.
2. CONCRETE CURB TO BE CONSTRUCTED USING SLIPFORMS, HAND FORMED OR STATIONARY FORMS ARE ONLY ALLOWED FOR CURB TIE-INS.
3. THE SLOPE FOR CURB & GUTTER MUST BE A MINIMUM OF 0.5%.



Brett M. Jones
CITY ENGINEER
12/15/2022
DATE

REV.	DATE

SCALE:
N.T.S.

DESIGNED _____
DRAWN _____
CHECKED _____



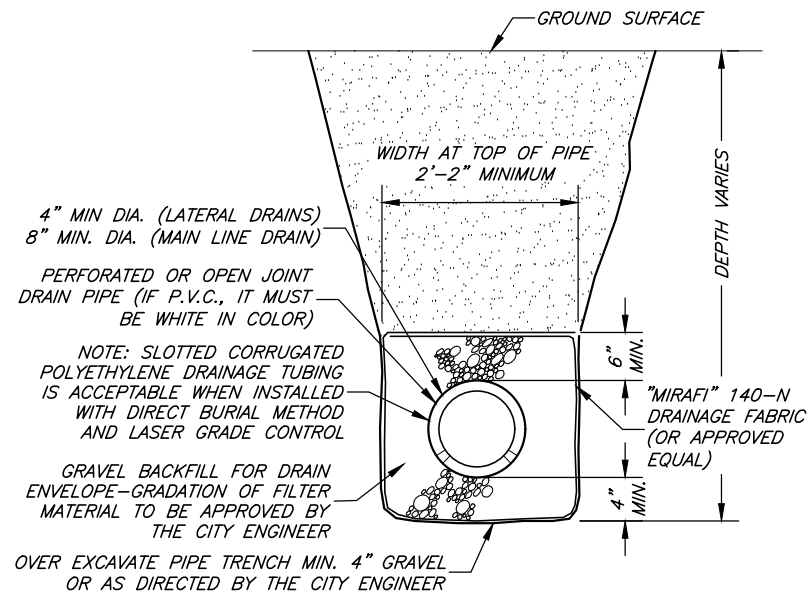
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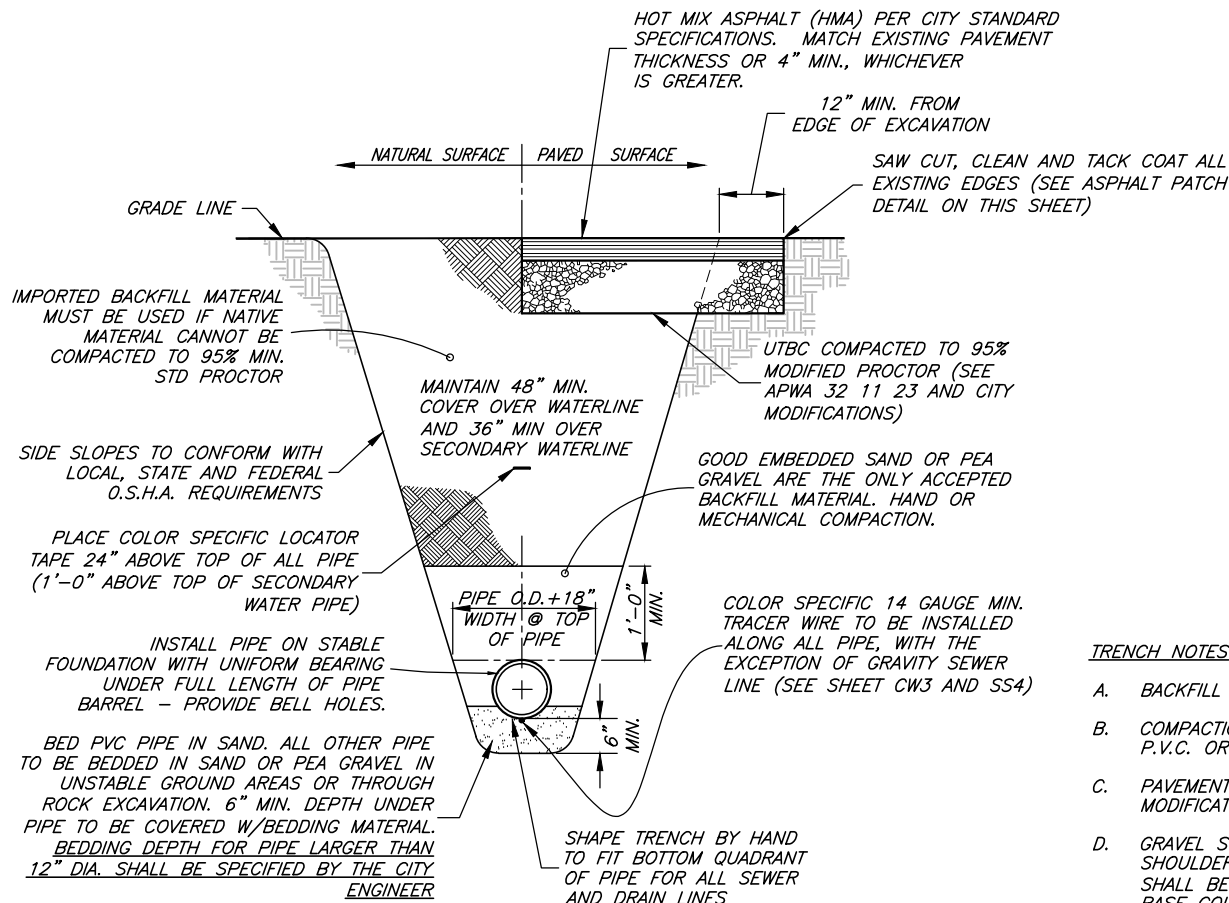
BRIGHAM CITY CORPORATION
PUBLIC WORKS - ROAD IMPROVEMENT STANDARDS
TYPICAL SIDEWALK, CURB & GUTTER, CONCRETE
COLLAR, AND DEFECTIVE CONC. REPLACEMENT DETAILS

SHEET:
R11
OF 45 SHEETS
0



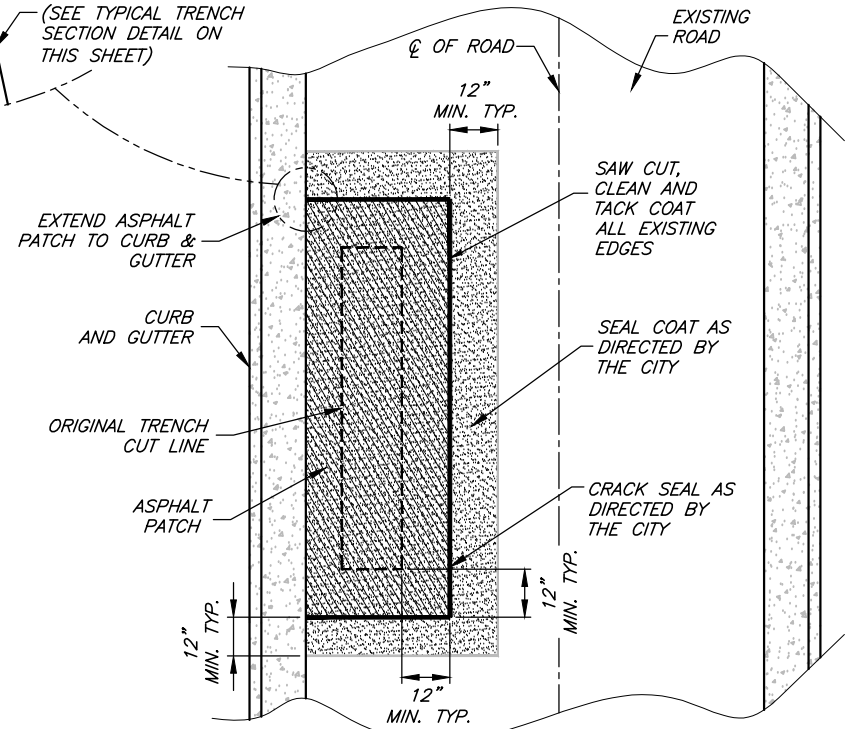
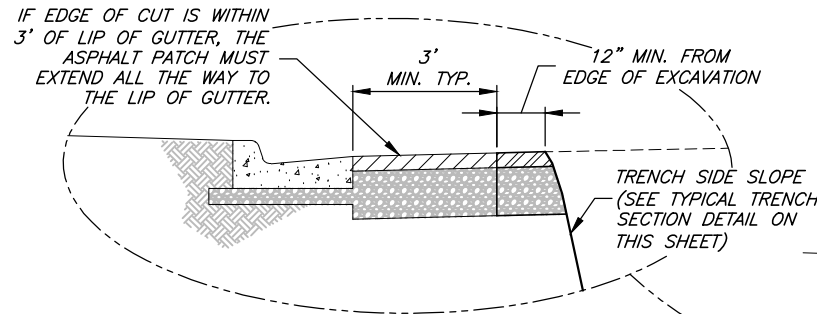
OPEN JOINT LAND DRAIN

USE ONLY UPON APPROVAL FROM THE CITY ENGINEER

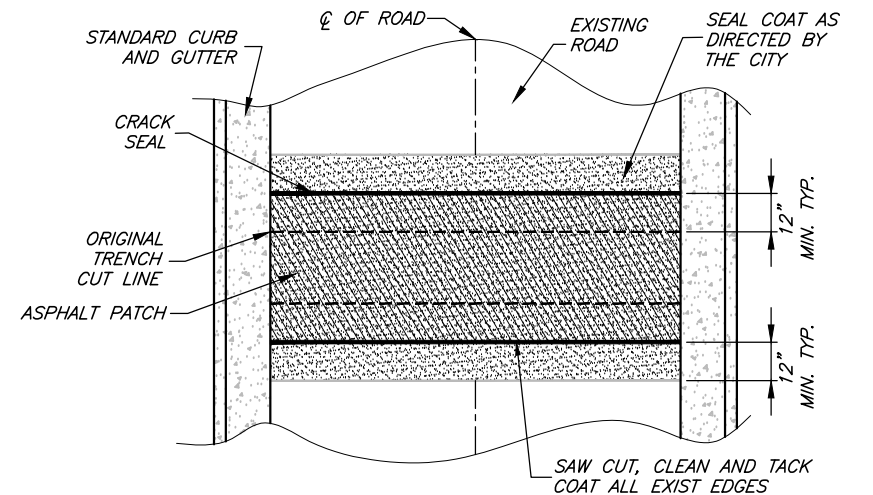


TYPICAL TRENCH SECTION

(WATER, IRRIGATION, SEWER, STORM DRAIN, AND LAND DRAIN)



TYPICAL PARALLEL ASPHALT PATCH PLAN



TYPICAL HORIZONTAL ASPHALT PATCH PLAN

ASPHALT PATCH NOTES:

- ON ANY ROAD PAVED OR OVERLAYED WITHIN THE LAST 10 YEARS, THE PATCH MUST BE COMPLETED PER APWA PLAN 255 (BITUMINOUS PAVEMENT T-PATCH).
- NO ANGLED ASPHALT PATCHING ALLOWED.

TRENCH NOTES:

- BACKFILL PER APWA 33 05 20 AND CITY MODIFICATIONS.
- COMPACTION TEST REQUIRED AT SPRING-LINE FOR ALL P.V.C. OR H.D.P.E. PIPES.
- PAVEMENT RESTORATION PER APWA 33 05 25 AND CITY MODIFICATIONS.
- GRAVEL SURFACED AREAS, SUCH AS ROADS AND SHOULDERS, PARKING AREAS, AND UNPAVED DRIVEWAYS, SHALL BE REPAIRED WITH 8" THICK (MIN.) 1" UNTREATED BASE COURSE COMPACTED TO 95% MODIFIED PROCTOR.
- WATER & SEWER LINES, INCLUDING SERVICE LINES, SHALL NOT BE INSTALLED IN THE SAME TRENCH.



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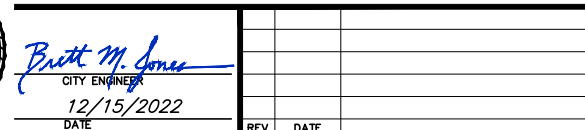


PUBLIC WORKS

BRIGHAM CITY CORPORATION
PUBLIC WORKS - ROAD IMPROVEMENT STANDARDS
UTILITY TRENCH AND ASPHALT PATCH PLAN DETAILS

SHEET:
R12
OF 45 SHEETS
0

1. "BLUE" BOLTS AND NUTS ARE REQUIRED BY THE CITY.
2. ALL SUPPLIES, LABOR, MACHINERY, ETC. WILL BE SUPPLIED BY THE CONTRACTOR. BRIGHAM CITY WILL SUPPLY AND SET THE METER ON ALL 1" CONNECTIONS. THE CONTRACTOR SHALL SUPPLY METERS FOR CONNECTIONS GREATER THAN 1" (SEE SHEET CW4).
3. ALL SPECIFIED BRANDS OF MATERIALS SHOWN ON THESE DRAWINGS ARE "CITY STANDARDS." OTHER EQUIVALENT BRANDS MAY BE USED WITH THE PRIOR APPROVAL OF THE CITY ENGINEER AND THE CITY WATER DIVISION.
4. CULINARY WATER METERS SHALL NOT BE LOCATED WITHIN THE DRIVEWAY AREA. IF A DRIVEWAY IS PLACED OVER AN EXISTING METER, THE "ENTIRE" SERVICE LINE, CORP STOP, AND METER SHALL BE RELOCATED AT THE OWNER'S EXPENSE.
5. INSPECTION OF ALL WATER LINE INSTALLATIONS WILL BE DONE BY THE CITY WATER DIVISION, WITH A 48 HOUR MINIMUM NOTICE REQUIRED PRIOR TO START OF WORK.
6. THE USE OF "FORD" METER SETTER, CORPORATION STOPS, AND COMPRESSION TYPE FITTINGS IS ACCEPTED BY THE CITY.
7. SERVICE LINES ARE TO BE TAPPED LEVEL (HORIZONTAL)
8. WHEN MOVING A SERVICE, A MIN. OF 18 INCHES OF STRAIGHT PIPE OUT OF THE SETTER AND/OR CORPORATION STOP IS REQUIRED BEFORE THE GOOSENECK UNLESS OTHERWISE APPROVED BY THE CITY WATER DIVISION.
9. GALVANIZED WATER LATERALS (CURRENTLY IN SERVICE) ENCOUNTERED DURING CONSTRUCTION SHALL BE COMPLETELY REMOVED AND REPLACED TO CURRENT STANDARDS.

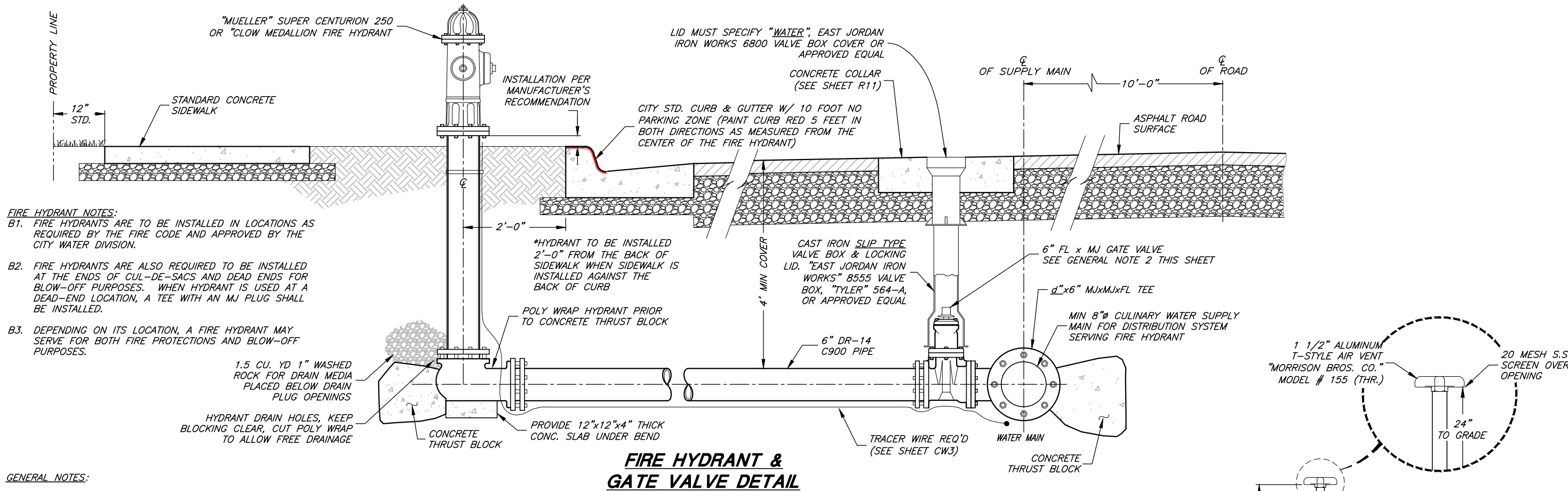


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BRIGHAM CITY CORPORATION
PUBLIC WORKS - CULINARY WATER SYSTEM STANDARDS
RESIDENTIAL WATER SERVICE CONNECTION DETAILS

EET:
N1
SHEETS

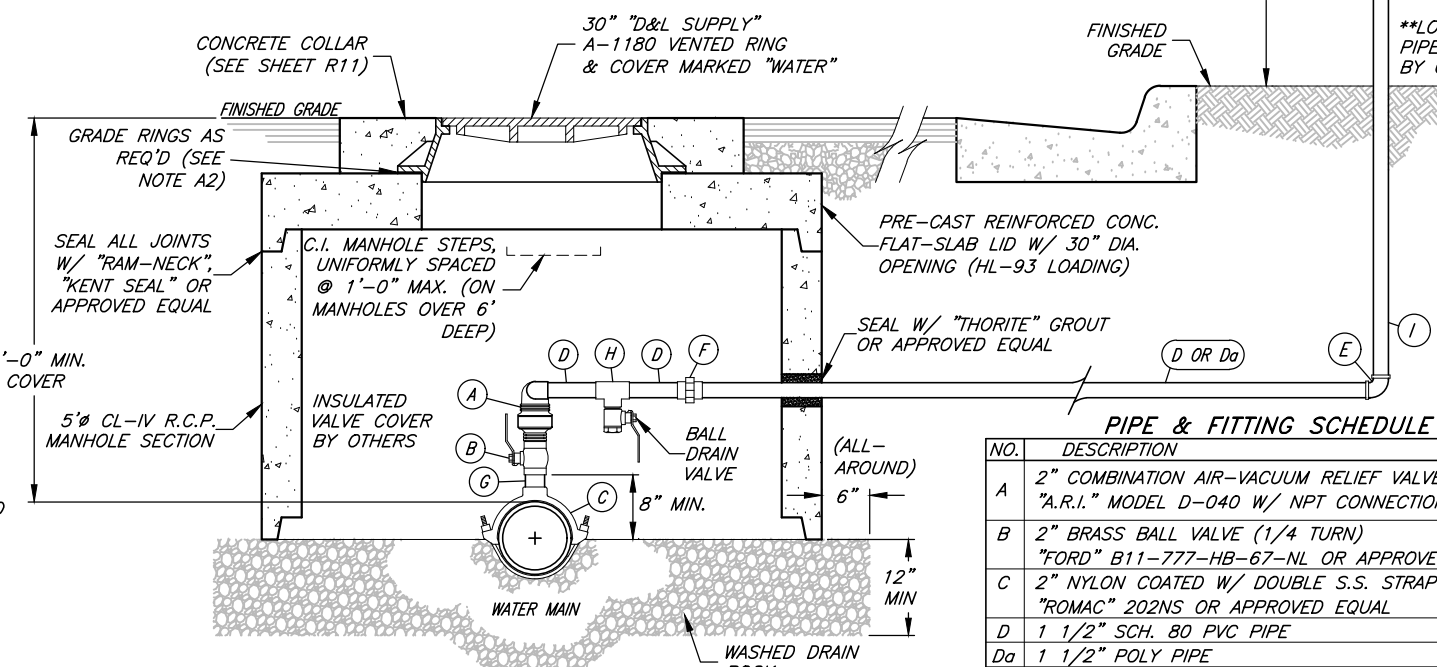


- FIRE HYDRANT NOTES:**
- B1. FIRE HYDRANTS ARE TO BE INSTALLED IN LOCATIONS AS REQUIRED BY THE FIRE CODE AND APPROVED BY THE CITY WATER DIVISION.
 - B2. FIRE HYDRANTS ARE ALSO REQUIRED TO BE INSTALLED AT THE ENDS OF CUL-DE-SACS AND DEAD ENDS FOR BLOW-OFF PURPOSES. WHEN HYDRANT IS USED AT A DEAD-END LOCATION, A TEE WITH AN MJ PLUG SHALL BE INSTALLED.
 - B3. DEPENDING ON ITS LOCATION, A FIRE HYDRANT MAY SERVE FOR BOTH FIRE PROTECTIONS AND BLOW-OFF PURPOSES.

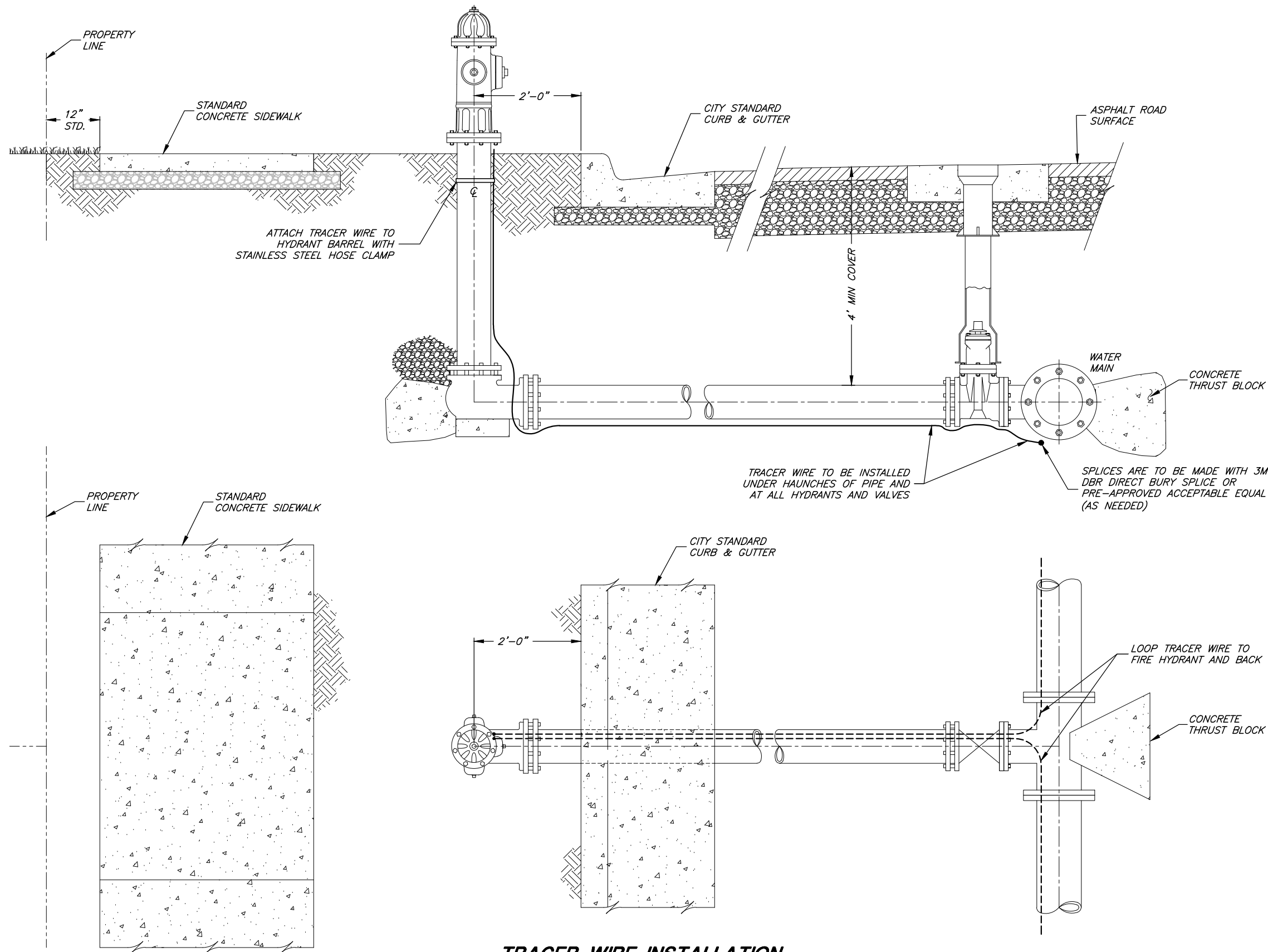
- GENERAL NOTES:**
- 1. "BLUE" BOLTS AND NUTS ARE REQUIRED BY THE CITY.
 - 2. ALL WATER MAIN AND HYDRANT GATE VALVES TO BE AWWA C509 RESILIENT WEDGE "MUELLER" A-2361 OR "CLOW" 2639 VALVES (ANY CHIPS IN THE VALVE FACTORY COATING DUE TO SHIPPING/INSTALLATION MUST BE REPAIRED USING AN APPROVED EPOXY COATING)
 - 3. VALVES OVER 6' FEET DEEP REQUIRE A NUT EXTENSION.
 - 4. ALL SPECIFIED BRANDS OF MATERIALS SHOWN ON THESE DRAWINGS ARE "CITY STANDARDS." OTHER EQUIVALENT BRANDS MAY BE USED WITH THE PRIOR APPROVAL OF THE CITY ENGINEER AND THE CITY WATER DIVISION.
 - 5. PIPES, JOINTS, FITTINGS, VALVES, & FIRE HYDRANTS SHALL CONFORM TO ANSI / NSF 61.
 - 6. FIRE HYDRANTS SHALL NOT BE LOCATED WITHIN 10 FEET OF A SANITARY SEWER OR WITHIN 10 FEET OF STORM DRAIN WHERE POSSIBLE.
 - 7. ALL WATER SYSTEM MATERIALS SHALL BE NEW (DISCOLORED PIPE OR PIPE MATERIALS STOCKPILED LONGER THAN 1 YEAR WILL NOT BE ACCEPTED BY THE CITY WATER DIVISION); USED MATERIALS ARE NOT ALLOWED.

AIR/VACUUM RELIEF STATION NOTES:

- A1. THE USE OF AN "APCO" 145C HEAVY-DUTY COMBINATION AIR VAC IS ACCEPTED WHEN APPROVED BY THE CITY. UPSIZE VENT PIPE, AIR VENT AND FITTINGS (ITEMS D, E, F, H AND I) TO 2" DIA. AND GALVANIZED STEEL WHEN USING ALTERNATE VALVES.
- A2. NO MORE THAN 12" OF GRADE RINGS TO BE ALLOWED ON ANY MANHOLE.
- A3. A DECORATIVE AIR VENT COVER W/ A TAMPER RESISTANT CAP MAY BE USED, WHEN APPROVED BY THE CITY WATER DIVISION. THIS IS A CASE SPECIFIC ITEM AND THE DESIGN MUST BE SUBMITTED AND APPROVED BY THE CITY PRIOR TO INSTALLATION.



PIPE & FITTING SCHEDULE		
NO.	DESCRIPTION	FITTING
A	2" COMBINATION AIR-VACUUM RELIEF VALVE "A.R.I." MODEL D-040 W/ NPT CONNECTIONS	THR.
B	2" BRASS BALL VALVE (1/4 TURN) "FORD" B11-777-HB-67-NL OR APPROVED EQUAL	THR.
C	2" NYLON COATED W/ DOUBLE S.S. STRAPS SERVICE SADDLE "ROMAC" 202NS OR APPROVED EQUAL	
D	1 1/2" SCH. 80 PVC PIPE	THR.
Da	1 1/2" POLY PIPE	THR.
E	1 1/2" GALV. STEEL 90° ELBOW	THR.
F	1 1/2" SCH. 80 PVC UNION	THR.
G	2" BRASS PIPE	THR.
H	1 1/2" SCH. 80 PVC TEE	THR.
I	1 1/2" GALV. STEEL PIPE	THR.



NOTES:

1. ALL WATERLINES SHALL HAVE A MINIMUM 14 GA. INSULATED TRACER WIRE INSTALLED UNDER THE HAUNCHES OF THE PIPE PRIOR TO BACKFILLING.
2. TRACER WIRES SHALL TERMINATE AT ALL FIRE HYDRANTS. AT SERVICE SADDLES AND TAPPING SLEEVES, THE TRACER WIRE SHALL NOT BE ALLOWED TO BE PLACED BETWEEN THE SADDLE AND THE PIPE. A GROUNDING ROD SHALL BE INSTALLED AT ALL TRACER SYSTEM TERMINAL POINTS.
3. TRACER WIRE SHALL BE COPPER WIRE WITH BLUE INSULATION RATED FOR DIRECT BURIAL. ALL WIRE CONNECTORS SHALL BE 3M DBR DIRECT BURY SPLICE OR PRE-APPROVED ACCEPTABLE EQUAL AND SHALL BE WATERTIGHT TO PROVIDE ELECTRICAL CONTINUITY.
4. ALL TRACER WIRE SHALL BE TESTED FOR CONTINUITY IN THE PRESENCE OF THE PUBLIC WORKS INSPECTOR PRIOR TO ASPHALT PLACEMENT. ANY TRACER WIRE FOUND NOT TO BE CONTINUOUS AFTER TESTING SHALL BE REPAIRED OR REPLACED BY THE CONTRACTOR PRIOR TO ASPHALT PLACEMENT.

TRACER WIRE INSTALLATION

CITY STANDARD STREET SECTION (CURB & GUTTER)



Brett M. Jones
CITY ENGINEER
12/15/2022
DATE

REV.	DATE

SCALE:
N.T.S.

DESIGNED _____
DRAWN _____
CHECKED _____



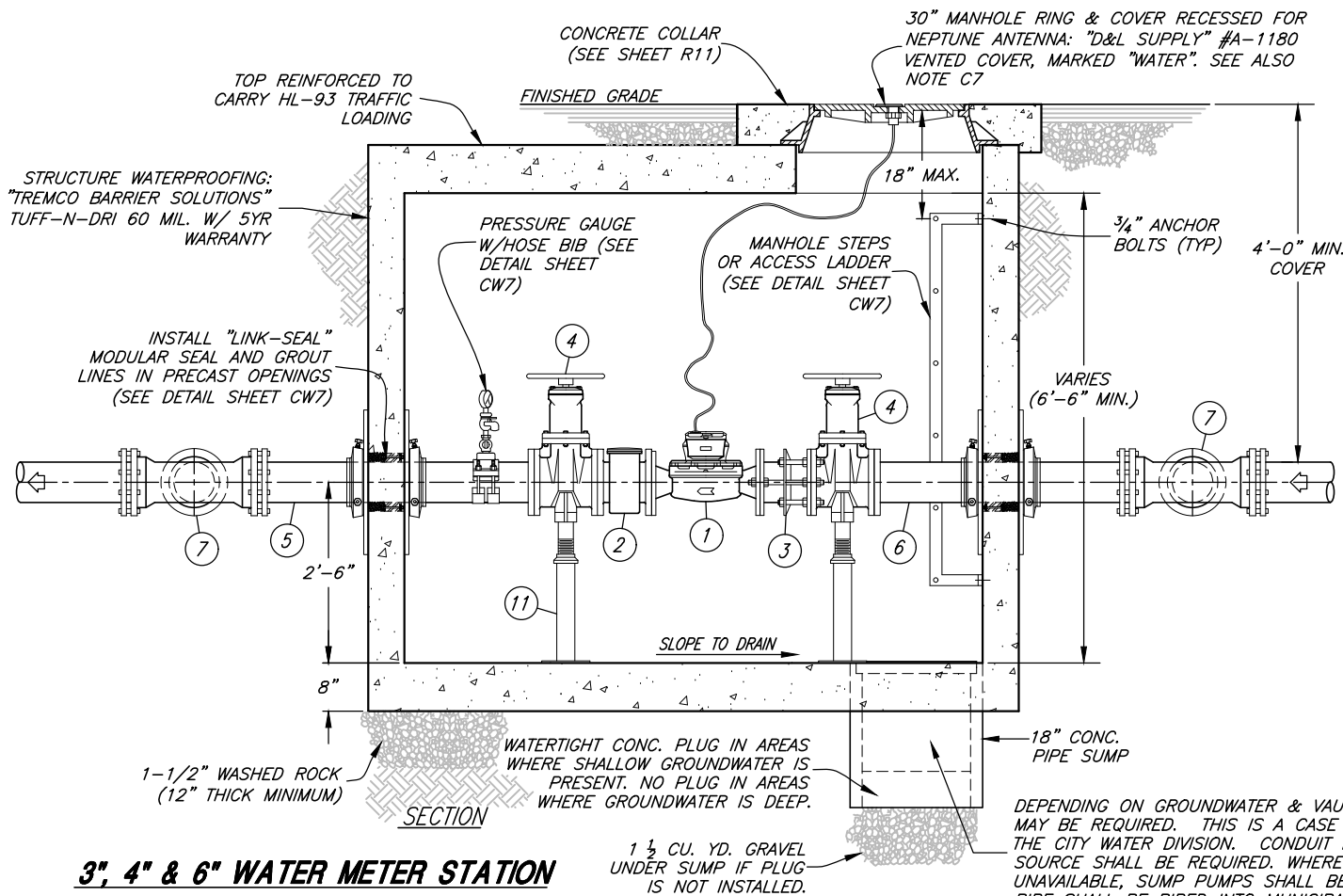
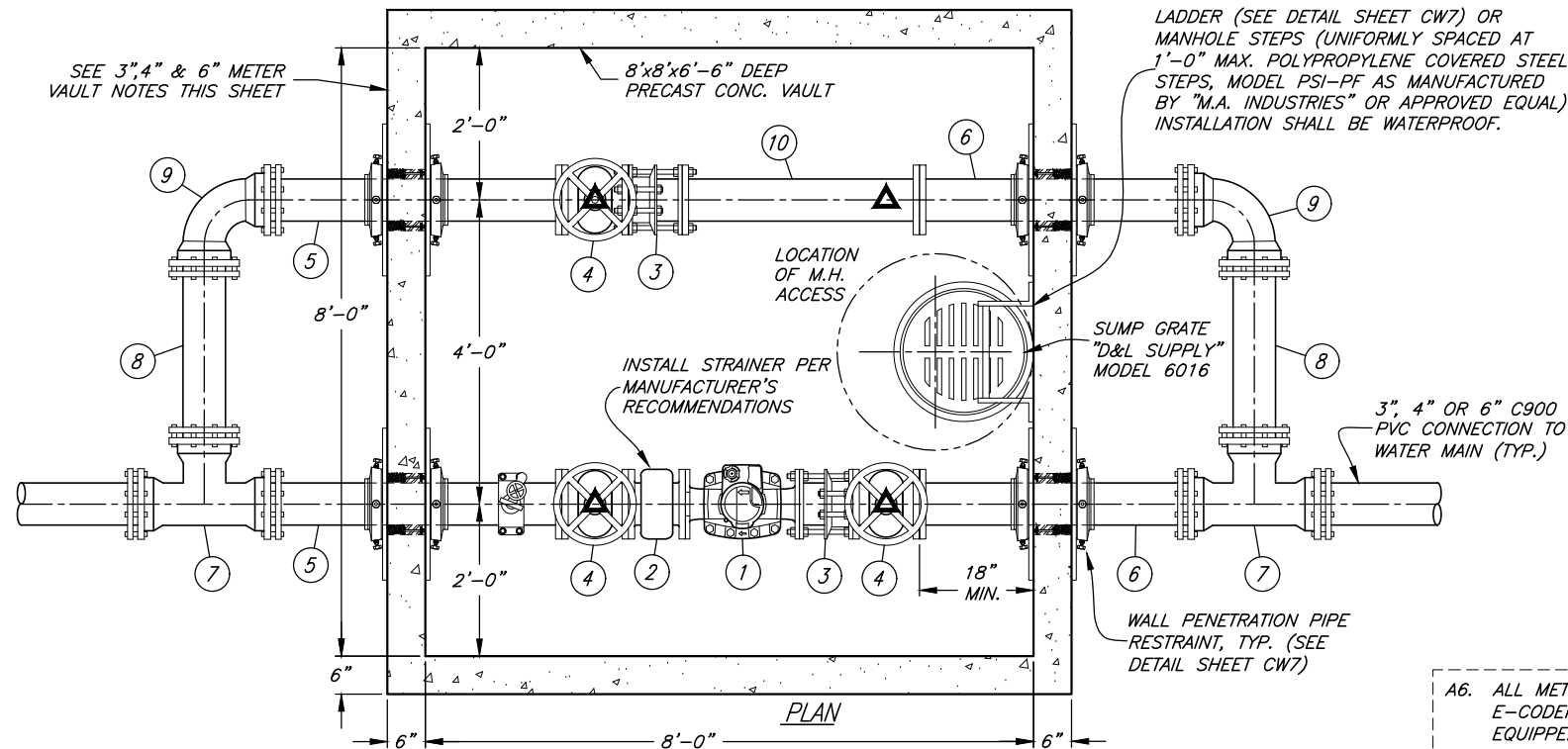
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PUBLIC WORKS

BRIGHAM CITY CORPORATION
PUBLIC WORKS - CULINARY WATER SYSTEM STANDARDS
TRACER WIRE INSTALLATION DETAILS

SHEET:
CW3
OF 45 SHEETS
0



3", 4" & 6" WATER METER STATION

3", 4" & 6" METER VAULT NOTES:

- A1. ALL FITTINGS OUTSIDE OF THE VAULT ARE TO BE DUCTILE IRON MJ WITH THRUST RESTRAINT RETAINER GLANDS ("ROMAC"; MJRG, OR APPROVED EQUAL)
- A2. PENETRATION WALLS NEED TO BE ADEQUATELY DESIGNED STRUCTURALLY FOR ANTICIPATED THRUST.
- A3. THE PRECAST VAULT MANUFACTURER IS RESPONSIBLE FOR DESIGN RELATED TO TRAFFIC LOADING AND THRUST. VERIFICATION OF PROPER DESIGN MUST BE PROVIDED TO THE CITY BY THE DEVELOPER, CONTRACTOR, OR PROPERTY OWNER AS THE CASE MAY BE.
- A4. ALL FITTINGS SHALL BE AWWA C-110 WITH 125 LB. FLANGES. ALL PIPING SHALL BE DUCTILE IRON PIPE CLASS 350 P.S.I. MIN.
- A5. ALL WALL PIPE PENETRATIONS AND JOINTS SHALL BE SEALED TO PREVENT WATER INFILTRATION. USE "LINK-SEAL" ON CAST-IN-PLACE VAULTS. PRECAST VAULTS SEAL AS DIRECTED BY CITY WATER DIVISION. APPROVED PRODUCTS ARE:
(a) "PRIME RESIN"- PRIMEFLEX 900XLV
(b) "MANUS PRODUCTS"- MANUS BOND 75AM

- A6. ALL METERS TO BE COMPATIBLE WITH "NEPTUNE" E-CODER) R900; PIT VERSION INTERFACE AND EQUIPPED W/ LID ANTENNA

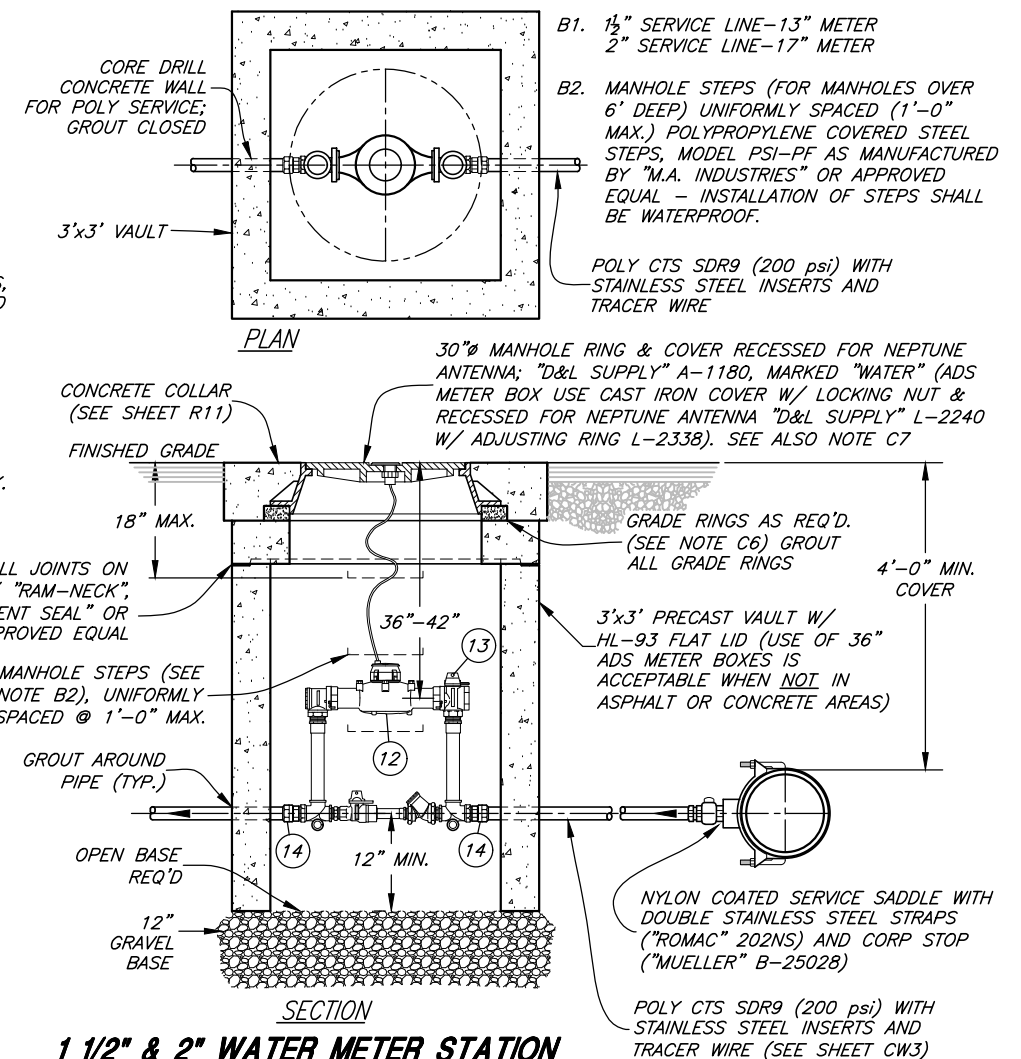
GENERAL NOTES:

- C1. PROPERTY OWNER OR CONTRACTOR SHALL PAY FOR ALL COSTS OF INSTALLATION INCLUDING ALL MATERIALS, ALL EXCAVATION AND FILL, ASPHALT REPLACEMENT AND WATER MAIN CONNECTION.
- C2. INSPECTION OF ALL WATER LINE INSTALLATIONS WILL BE DONE BY THE CITY WATER DIVISION, WITH A 48 HOUR MINIMUM NOTICE REQUIRED PRIOR TO START OF WORK.
- C3. IF APPLICABLE, A CITY EXCAVATION PERMIT MUST BE REQUESTED AND APPROVED PRIOR TO START OF WORK.
- C4. "BLUE" BOLTS AND NUTS ARE REQUIRED BY THE CITY.
- C5. CONTRACTOR TO SUPPLY ALL METERS 1 1/2" OR LARGER.
- C6. NO MORE THAN 12" OF GRADE RINGS TO BE ALLOWED ON ANY MANHOLE OR STRUCTURE.
- C7. ALL RADIO-READ ANTENNAS ARE TO BE INSTALLED ABOVE THE ACCESS LID, RECESSED INTO THE MANHOLE OR METER PIT COVER.
- C8. ALL SPECIFIED BRANDS OF MATERIALS SHOWN ON THESE DRAWINGS ARE "CITY STANDARDS." OTHER EQUIVALENT BRANDS MAY BE USED WITH THE PRIOR APPROVAL OF THE CITY ENGINEER AND THE CITY WATER DIVISION.

PIPE & FITTING SCHEDULE					
NO.	DESCRIPTION (3", 4" & 6" METER STA.)	JOINT TYPE	3" LINE	4" LINE	6" LINE
1	"NEPTUNE" C&I MACH 10 ULTRASONIC METER (SEE NOTE A6)	FL	3"	4"	6"
2	"NEPTUNE" LEAD-FREE BRONZE STRAINER	FL	3"	4"	6"
3	"ROMAC" DJ400 DISMANTLING JOINT (2)	FL	3"	4"	6"
4	"MUELLER" RESILIENT WEDGE GATE VALVE W/ HANDWHEEL (3)	FL	A-2362	A-2361	A-2361
5	D.I. NIPPLE PIECE (2)	FLxPE	3"	4"	6"
6	D.I. NIPPLE PIECE (2)	FLxPE	3"	4"	6"
7	D.I. TEE (2)	MJ	3"x3"x3"	4"x4"x4"	6"x6"x6"
8	D.I. PIPE SECTION (2)	PE	3"	4"	6"
9	D.I. 90° ELBOW (2)	MJ	3"	4"	6"
10	D.I. SPOOL PIECE	FL	3"	4"	6"
11	"CLOW" F-1608 OR "ANVIL" #264 GALV. PIPE SUPPORT W/ 3" COMPANION FLANGE & VARIABLE HEIGHT 3" NIPPLE (4 EA REQ'D.)				Δ SYMBOL

NO.	DESCRIPTION (1 1/2" & 2" METER STA.)	JOINT TYPE	1 1/2" LINE	2" LINE
12	"NEPTUNE" MACH 10 ULTRASONIC METER W/ E-CODER) R900; PIT VERSION INTERFACE & EQUIPPED W/ LID ANTENNA	OVFL	1 1/2"	2"
13	"MUELLER" B-2423-2 METER YOKE (18" HEIGHT) OR APPROVED EQUIVALENT	--	1 1/2"	2"
14	"MUELLER" 110 COMPRESSION CONNECTION COUPLING OR APPROVED EQUIVALENT	--	1 1/2"	2"

1 1/2" & 2" METER NOTES:



1 1/2" & 2" WATER METER STATION



Brett M. Jones
CITY ENGINEER
12/15/2022
DATE

REV.	DATE

SCALE:
N.T.S.

DESIGNED _____
DRAWN _____
CHECKED _____



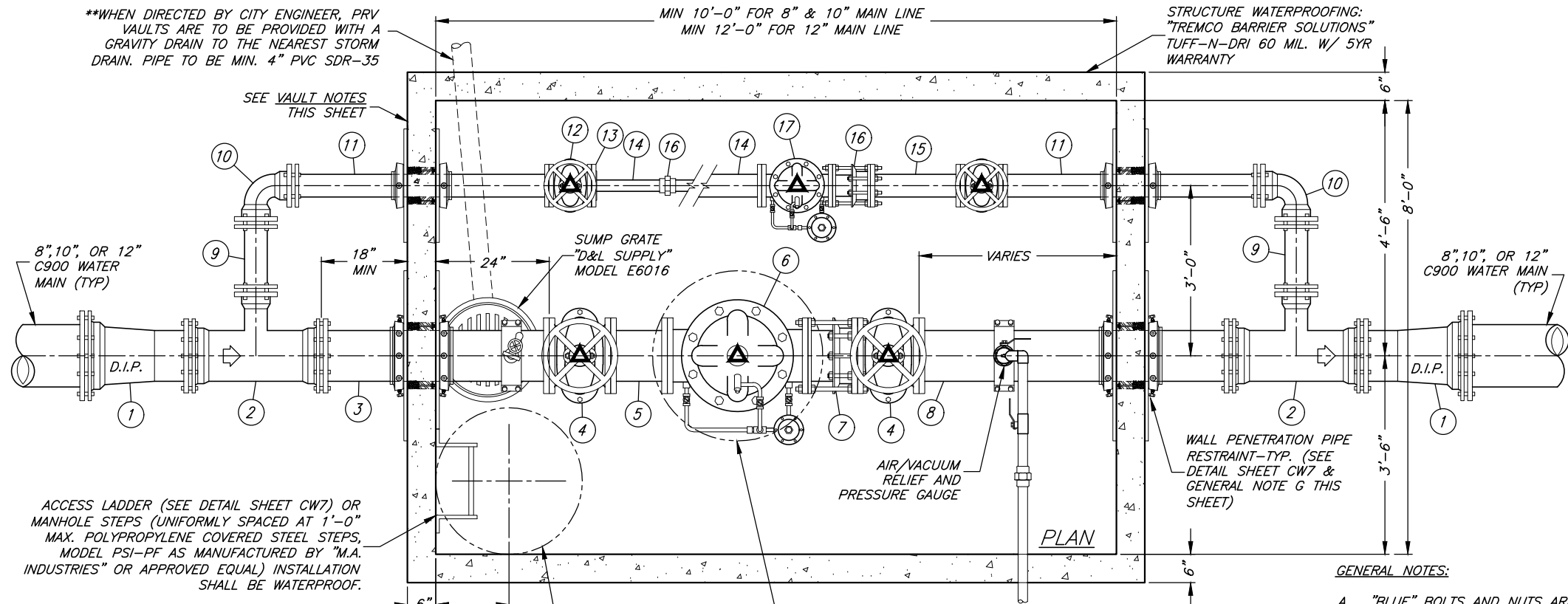
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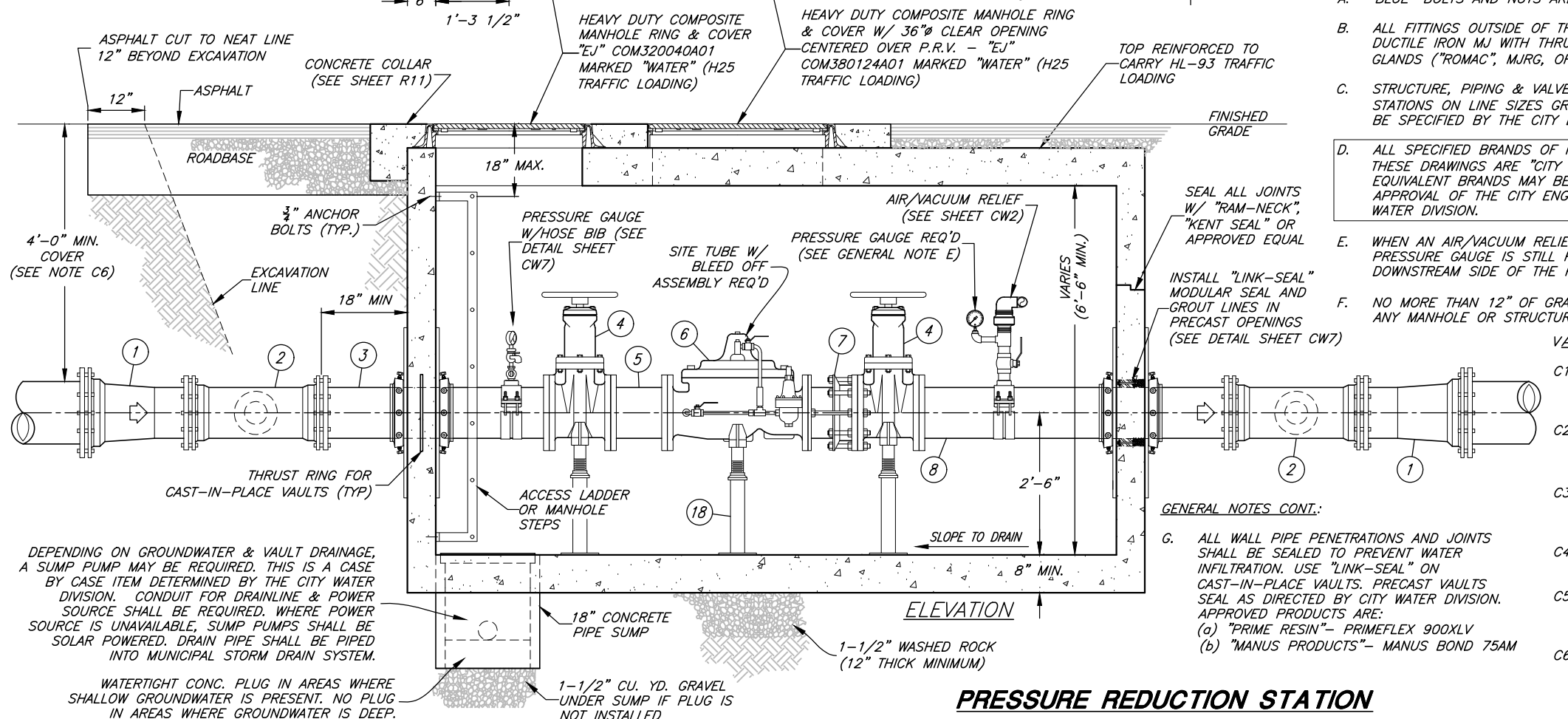
BRIGHAM CITY CORPORATION
PUBLIC WORKS - CULINARY WATER SYSTEM STANDARDS
TYPICAL WATER METER STATIONS

SHEET:
CW4
OF 45 SHEETS
0

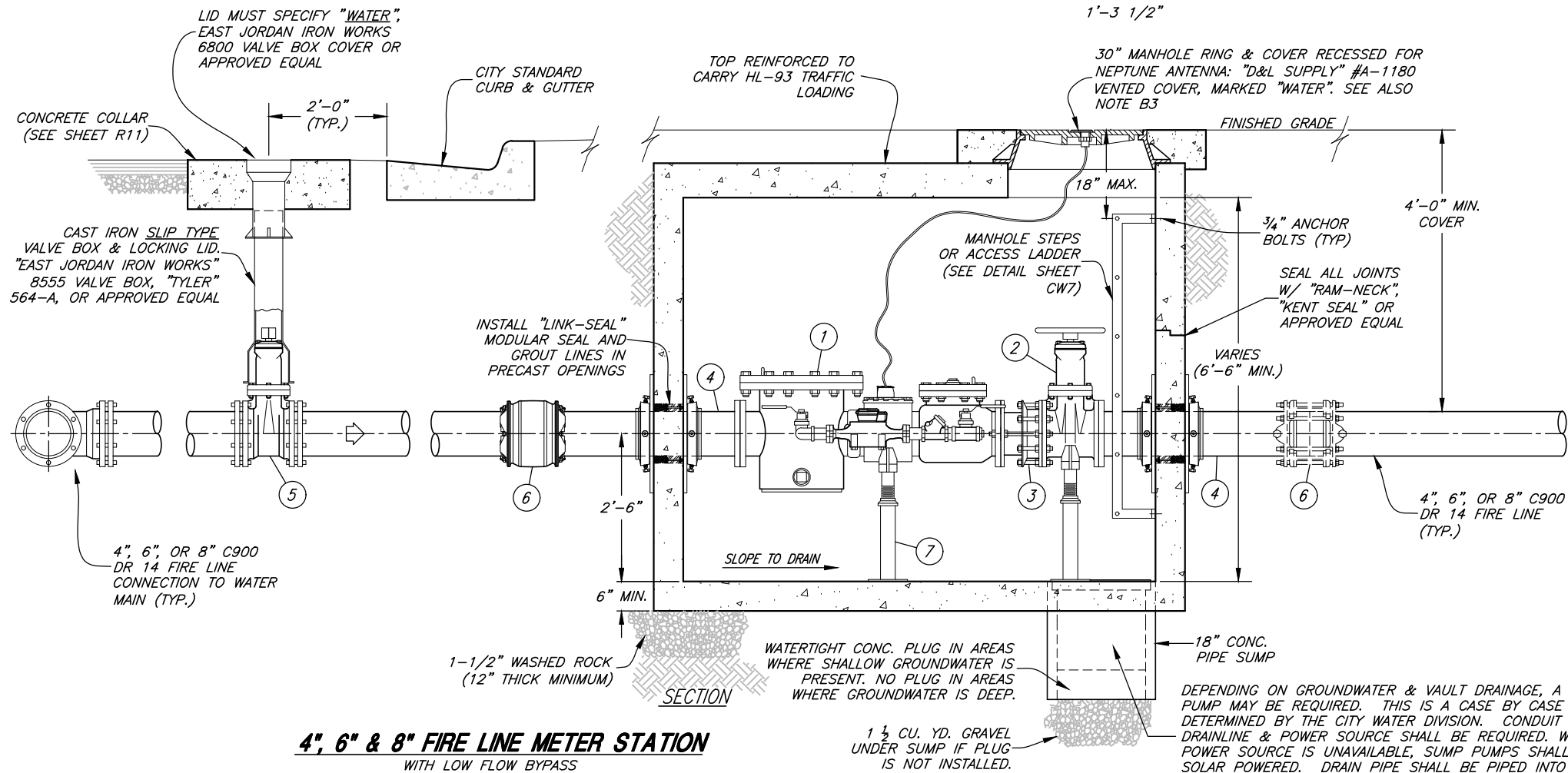
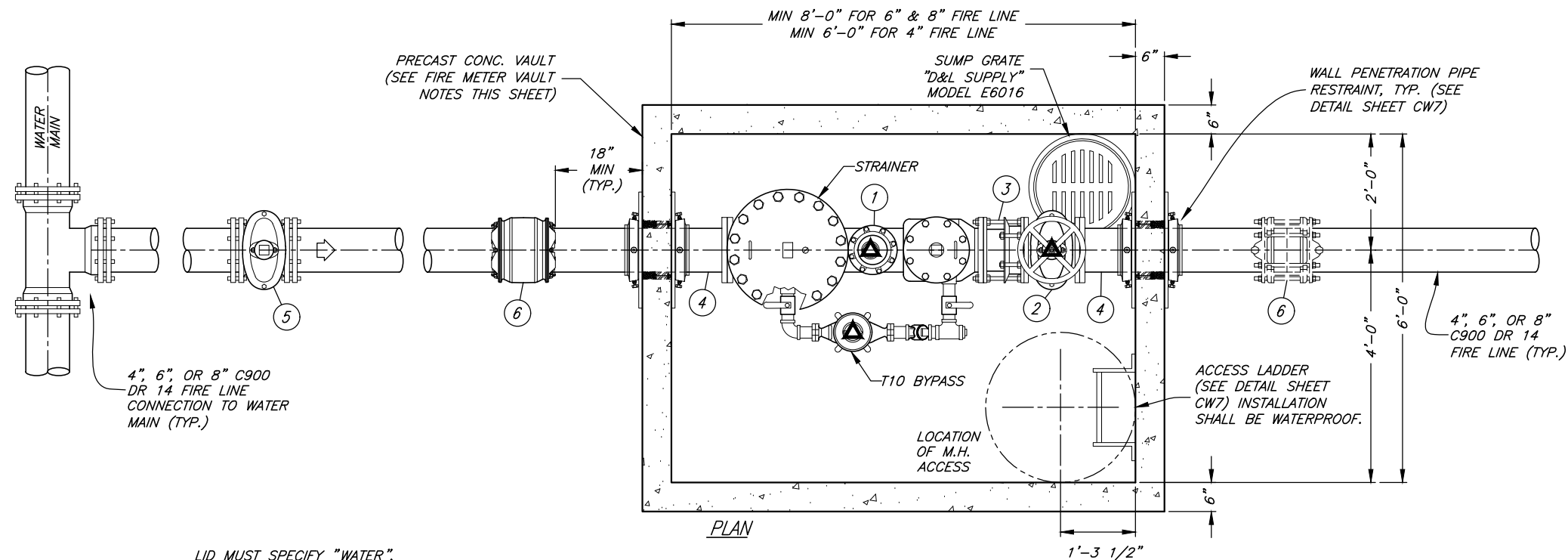


PIPE & FITTING SCHEDULE				
NO.	DESCRIPTION	JOINT TYPE	8" LINE	10" LINE
1	D.I. REDUCER (2)	MJ	8"x6"	10"x8"
2	D.I. REDUCING TEE (2)	MJ	6"x6"x4"	8"x8"x4"
3	D.I. NIPPLE PIECE	FLxPE	6"	8"
4	"MUELLER" A-2361 GATE VALVE W/ HANDWHEEL (2)	FL	6"	8"
5	12" D.I. SPOOL PIECE	FL	6"	8"
6	"CLA-VAL" 90-01 PRESSURE REDUCTION VALVE	FL	6"	8"
7	"ROMAC" DJ400 DISMANTLING JOINT	FL	6"	8"
8	D.I. NIPPLE PIECE	FLxPE	6"	8"
9	D.I. PIPE SECTION	PE	4"	4"
10	D.I. 90° ELBOW (2)	MJ	4"	4"
11	D.I. NIPPLE PIECE	FLxPE	4"	4"
12	"MUELLER" A-2361 GATE VALVE W/ HANDWHEEL (2)	FL	4"	4"
13	BLIND FLANGE W/ THREADED CONNECTION (2)	FLxTHR.	4"x2 1/2"	--
14	D.I. SPOOL PIECE	FL	--	4"
15	D.I. SPOOL PIECE	FL	--	4"
16	"ROMAC" DJ400 DISMANTLING JOINT	FL	--	4"
17	"CLA-VAL" 90-01 PRESSURE REDUCTION VALVE	FL	--	4"
18	"CLOW" F-1608 OR "ANVIL" #264 GALV. PIPE SUPPORT W/ 3" COMPANION FLANGE & VARIABLE HEIGHT 3" NIPPLE (6 EA REQ'D.)	THR.	2 1/2"	--

△ SYMBOL



PRESSURE REDUCTION STATION



PIPE & FITTING SCHEDULE					
NO.	DESCRIPTION (6" & 8" METER STA.)	JOINT TYPE	4" LINE	6" LINE	8" LINE
1*	"NEPTUNE" PROTECTUS III W/ T10 BYPASS METER & R900i RADIO	FL	4"	6"	8"
2	"MUELLER" RESILIENT WEDGE GATE VALVE W/ HANDWHEEL	FL	4" A-2361	6" A-2361	8" A-2361
3	"ROMAC" DJ400 DISMANTLING JOINT	FL	4"	6"	8"
4	D.I. NIPPLE PIECE	FLxPE	4"	6"	8"
5	"MUELLER" RESILIENT WEDGE GATE VALVE	FLxMJ	4" A-2361	6" A-2361	8" A-2361
6	SLEEVE COUPLING CONNECTION ("ROMAC" RESTRAINED COUPLING ADAPTER OR MJxMJ SLEEVE W/ MEGALUGS)	--	4"	6"	8"
7	"CLOW" F-1608 OR "ANVIL" #264 GALV. PIPE SUPPORT W/ 3" COMPANION FLANGE & VARIABLE HEIGHT 3" NIPPLE (3 EA REQ'D.)				▲ SYMBOL

* METER TO BE SUPPLIED BY OWNER OR CONTRACTOR AND NOT BY CITY.

FIRE LINE NOTES:

- NO WATER SERVICE OR FIRE LINES TO BUILDINGS ARE PERMITTED TO CONNECT TO AUXILIARY LINES SERVICING FIRE HYDRANTS.
- COMMERCIAL FIRE LINES FROM THE MAIN TO BUILDING SHALL BE SEPARATE LINES AND NOT PART OF THE WATER SERVICE LATERAL.
- FIRE LINES ARE TO BE MAINTAINED BY THE PROPERTY OWNER UP TO THE VALVE AT THE MAIN. THE CITY SHALL OWN AND MAINTAIN THE VALVE AT THE MAIN.
- THE FIRE LINE METER STATION TO BE LOCATED WITHIN THE 15'-0" PUBLIC UTILITY EASEMENT (PUE)

FIRE METER VAULT NOTES:

- ALL FITTINGS SHALL BE AWWA C-110 WITH 125 LB. FLANGES. ALL PIPING SHALL BE DUCTILE IRON PIPE CLASS 350 P.S.I. MIN.
- ALL FITTINGS OUTSIDE OF THE VAULT ARE TO BE DUCTILE IRON MJ WITH THRUST RESTRAINT RETAINER GLANDS ("ROMAC", MJRG, OR APPROVED EQUAL).
- "BLUE" BOLTS AND NUTS ARE REQUIRED BY THE CITY.
- PENETRATION WALLS NEED TO BE ADEQUATELY DESIGNED STRUCTURALLY FOR ANTICIPATED THRUST.
- THE PRECAST VAULT MANUFACTURER IS RESPONSIBLE FOR DESIGN RELATED TO TRAFFIC LOADING AND THRUST. VERIFICATION OF PROPER DESIGN MUST BE PROVIDED TO THE CITY BY THE DEVELOPER, CONTRACTOR, OR PROPERTY OWNER AS THE CASE MAY BE.
- ALL WALL PIPE PENETRATIONS ARE TO BE SEALED TO PREVENT WATER INFILTRATION. USE "LINK-SEAL" ON CAST-IN-PLACE VAULTS. PRECAST VAULTS SEAL AS DIRECTED BY CITY WATER DIVISION.
- NO MORE THAN 12" OF GRADE RINGS TO BE ALLOWED ON ANY MANHOLE OR STRUCTURE.

METER NOTES:

- ALL METERS TO BE RADIO-READ COMPATIBLE WITH "NEPTUNE" E-CODER R900i PIT VERSION INTERFACE & EQUIPPED WITH A THROUGH THE LID ANTENNA.
- METERS TO BE APPROVED BY WATER DEPARTMENT PRIOR TO INSTALLATION.
- ALL RADIO-READ ANTENNAS ARE TO BE INSTALLED ABOVE THE ACCESS LID, RECESSED INTO THE MANHOLE OR METER PIT COVER.

GENERAL NOTES:

- PROPERTY OWNER OR CONTRACTOR SHALL PAY FOR ALL COSTS OF INSTALLATION INCLUDING ALL MATERIALS, ALL EXCAVATION AND FILL, ASPHALT REPLACEMENT AND WATER MAIN CONNECTION.
- INSPECTION OF ALL WATER LINE INSTALLATIONS WILL BE DONE BY THE CITY WATER DIVISION, WITH A 48 HOUR MINIMUM NOTICE REQUIRED PRIOR TO START OF WORK.
- CONTRACTOR IS RESPONSIBLE FOR ALL COUNTY, STATE, OR CITY ROAD CUT PERMITS AND REGULATIONS.
- ALL SPECIFIED BRANDS OF MATERIALS SHOWN ON THESE DRAWINGS ARE "CITY STANDARDS." OTHER EQUIVALENT BRANDS MAY BE USED WITH THE PRIOR APPROVAL OF THE CITY ENGINEER AND THE CITY WATER DIVISION.



Brett M. Jones CITY ENGINEER 12/15/2022 DATE	
REV.	DATE

SCALE:
N.T.S.

DESIGNED _____
 DRAWN _____
 CHECKED _____



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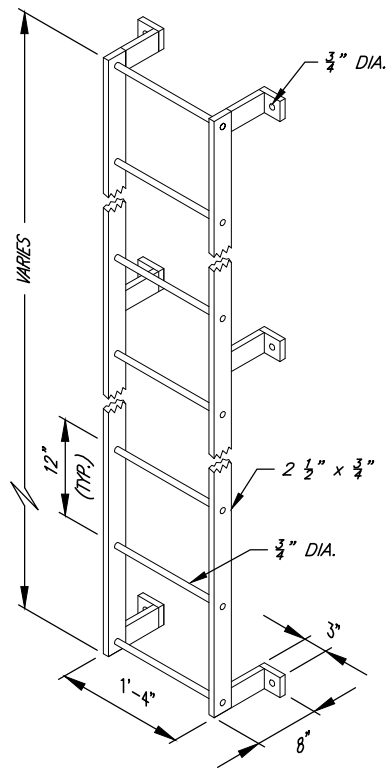
BRIGHAM CITY CORPORATION
PUBLIC WORKS - CULINARY WATER SYSTEM STANDARDS

FIRE LINE METER STATION

SHEET:

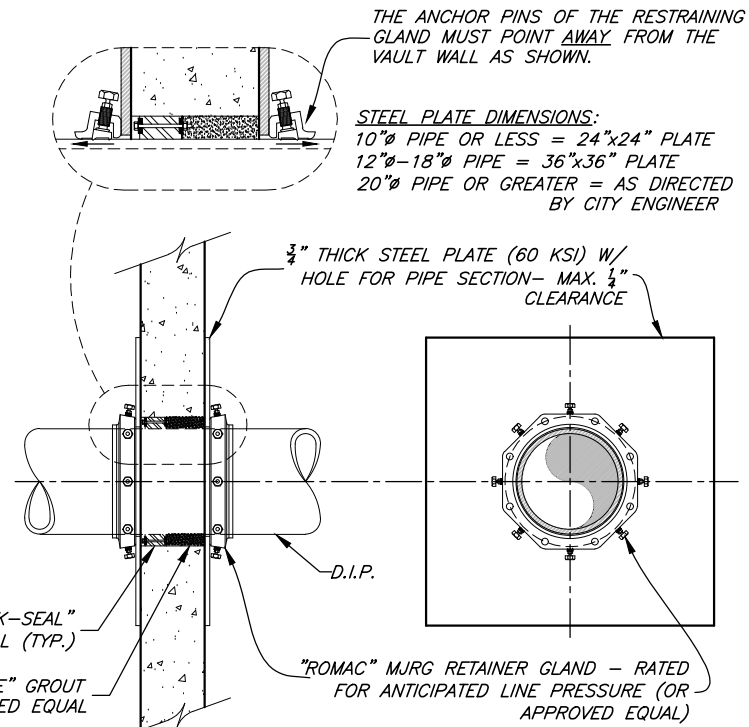
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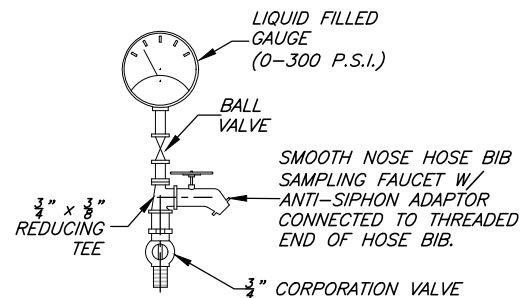
LADDER DETAIL

HOT DIP GALVANIZE AFTER FABRICATION



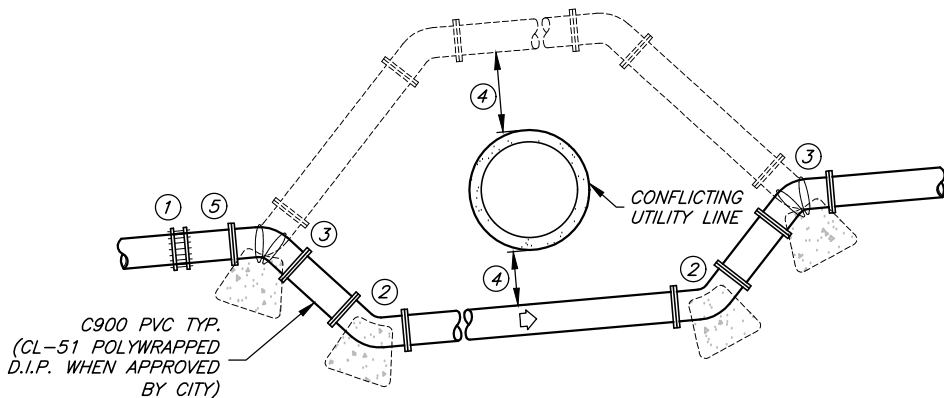
WALL PENETRATION DETAIL

FOR PRECAST VAULT (TYP)



PRESSURE GAUGE

W/SAMPLING FAUCET DETAIL



TYPICAL WATERLINE LOOP

1. TRANSITION COUPLING; "ROMAC" ALPHA, "ROMAC" MACRO, OR APPROVED EQUAL
2. MJ 45° BEND W/RETAINER GLANDS
3. CONSTRUCT THRUST BLOCKS AT EACH 45° BEND W/(3) #6 REBAR SECURING BLOCK TO FITTING (EPOXY COATING)
4. MINIMUM OF 12" COVER BETWEEN THE WATERLINE AND CONFLICTING UTILITY LINE TO BE CROSSED, EXCEPT LOOPS INVOLVING SEWER MAINS WHERE A MINIMUM OF 18" VERTICAL COVER ABOVE THE SEWER MAIN IS REQUIRED. EXCEPTIONS MUST BE APPROVED BY THE UTAH DIVISION OF DRINKING WATER (DDW).
5. AN AIR/VACUUM RELIEF VALVE MAY BE REQUIRED ON A CASE BY CASE BASIS AS DIRECTED BY THE CITY WATER DIVISION.

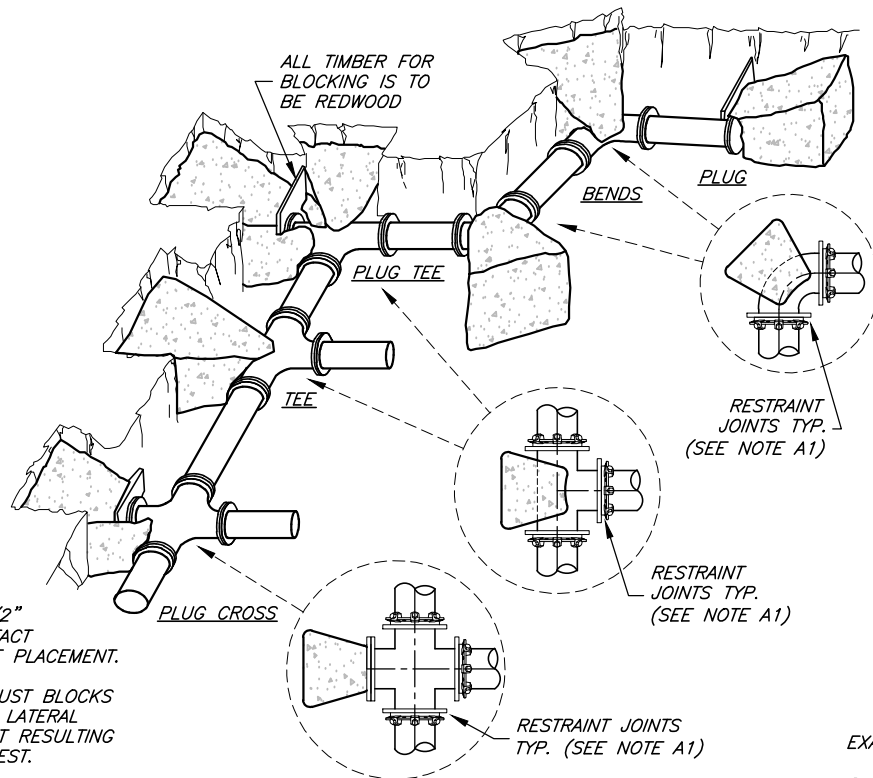
PIPE RESTRAINT

A1. FOR NOMINAL PIPE DIAMETERS 8" AND GREATER, ALL BENDS, CROSSES, TEES, REDUCERS, AND VALVES SHALL BE INSTALLED WITH RESTRAINING JOINTS ("MEGALUG", "ALPHA" OR APPROVED EQUAL).

A2. DESIGN SHALL ALSO BE REQUIRED TO ENSURE ADEQUATE RESTRAINT FOR PIPING JOINTS NEAR FITTINGS BASED ON PIPE DIAMETER AND PIPE PRESSURE.

THRUST BLOCKING NOTES:

- B1. CONCRETE SHALL NOT BE PLACED WITHIN 1-1/2" OF JOINTS AND BOLTS. COVER ALL METAL CONTACT AREAS WITH A POLY WRAP PRIOR TO CONCRETE PLACEMENT.
- B2. IN THE ABSENCE OF A SOILS REPORT, ALL THRUST BLOCKS SHALL BE SIZED ON THE BASIS OF A MAXIMUM LATERAL BEARING VALUE FOR 2000 P.S.F. AND A THRUST RESULTING FROM 200% OF THE WATER LINE STATIC LINE TEST.
- B3. THRUST BLOCKS ARE REQUIRED AT ALL BENDS OF 22-1/2" OR MORE. 11-1/4" BENDS SHALL HAVE RETAINER GLANDS.
- B4. CONCRETE SHALL HAVE A COMPRESSIVE STRENGTH OF NOT LESS THAN 3000 PSI IN 28 DAYS.



TYPICAL RETAINER GLANDS & THRUST BLOCKING

THRUST PER PSI OF WATER PRESSURE AT VARIOUS FITTINGS				
PIPE SIZE (IN.)	DEAD END OR TEE (LB.)	90° ELBOW (LB.)	45° ELBOW (LB.)	22-1/2° ELBOW (LB.)
4	19	27	15	7
6	39	55	30	15
8	67	94	51	26
10	109	154	84	43
12	155	218	119	61
14	210	296	161	82
16	272	383	209	106
18	351	494	269	137
20	434	611	333	169
24	623	878	487	244
30	947	1,332	722	377
36	1,356	1,905	1,032	542

- NOTES:**
- C1. IN USING THE ABOVE TABLE, USE THE MAXIMUM INTERNAL PRESSURE ANTICIPATED (I.E. HYDROSTATIC TEST PRESSURE, POSSIBLE SURGE PRESSURE DUE TO PUMP SHUT OFF, ETC.).
- C2. SEE SOILS REPORT FOR BEARING STRENGTH OF SOIL. IN THE ABSENCE OF A SOILS REPORT, AN AVERAGE SOIL (SPADABLE MEDIUM CLAY) CAN BE ASSUMED TO HAVE A BEARING STRENGTH OF 2000 P.S.F.

EXAMPLE:

8-INCH 90° ELBOW, PRESSURE 200 LB./SQ. IN.
FROM TABLE: THRUST = 94 X 200 = 18,800 LB.
ASSUME BEARING STRENGTH = 2,000 LB./SQ. FT.

$$\frac{18,800}{2,000} = 9.4 \text{ SQ. FT. AREA OF BEARING REQUIRED FOR THRUST BLOCK}$$



DESIGNED	_____ Brett M. Jones
DRAWN	_____ CITY ENGINEER
CHECKED	_____ 12/15/2022
DATE	_____ DATE

SCALE:
N.T.S.



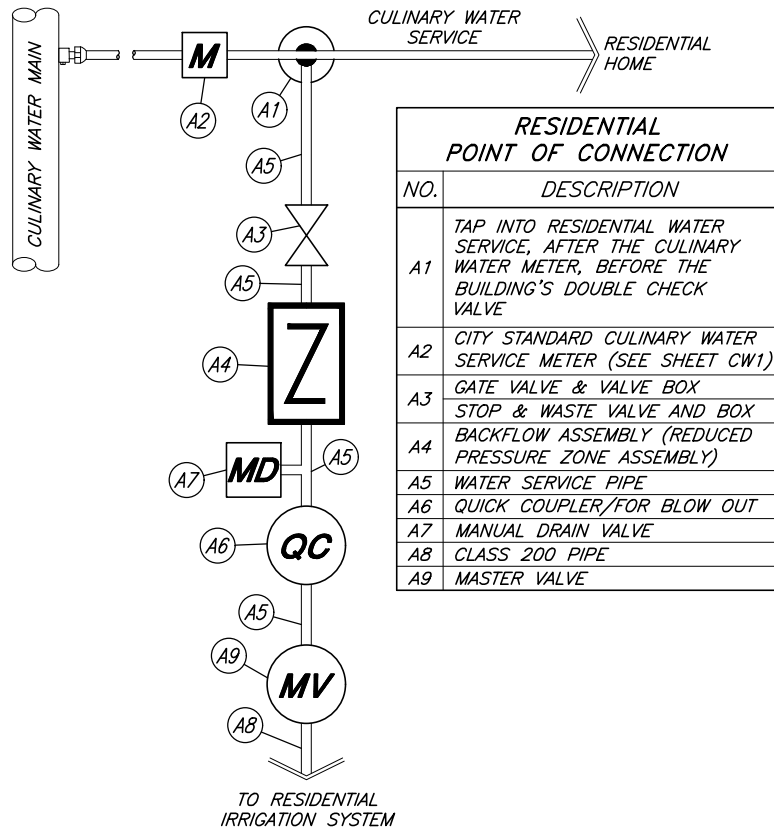
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BRIGHAM CITY CORPORATION
PUBLIC WORKS - CULINARY WATER SYSTEM STANDARDS
THRUST BLOCK, WATERLINE LOOP, AND MISC. VAULT DETAILS

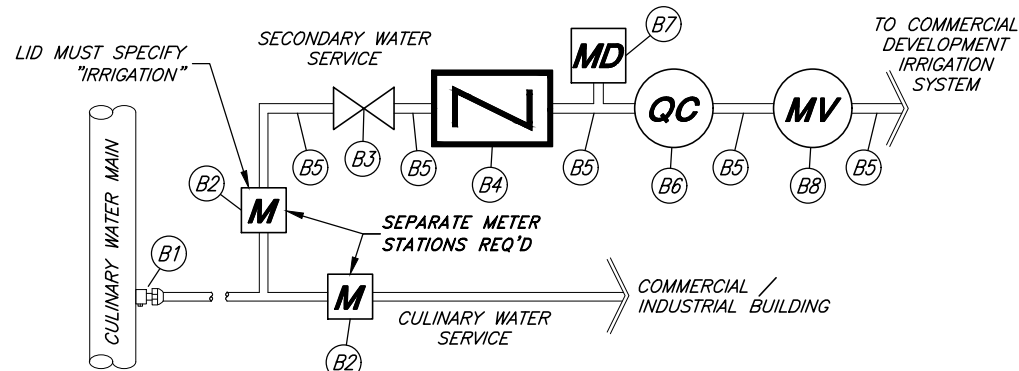
SHEET:
CW7
OF 45 SHEETS
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TYPICAL RESIDENTIAL POINT OF CONNECTION SCHEMATIC DIAGRAM
NOT TO SCALE

GENERAL NOTES:

- DESIGN, CONSTRUCTION, AND INSTALLATION SHALL BE DONE ACCORDING TO AND COMPLY WITH ALL CURRENT ADOPTED BUILDING AND PLUMBING CODES, AND TO MANUFACTURERS WRITTEN INSTRUCTIONS AND RECOMMENDATIONS.
- ALL TESTING, MAINTENANCE, AND/OR REPAIR SHALL BE PERFORMED BY A STATE CERTIFIED BACKFLOW ASSEMBLY TECHNICIAN.
- THE ASSEMBLY MUST BE THOROUGHLY DRAINED AND WINTERIZED EACH WINTER.
- THE RP ASSEMBLY SHALL BE PROTECTED FROM FREEZING AND VANDALISM WHERE APPLICABLE.
- ABOVE GROUND FITTINGS TO BE EPOXY PAINTED BLUE ON THE CULINARY SIDE AND PURPLE ON THE SECONDARY SIDE.
- PROVIDE BOLLARDS OR OTHER PROTECTION IF AND AS DIRECTED BY THE CITY.
- RP ASSEMBLY DESIGN AND CONSTRUCTION DETAILS/DRAWINGS TO BE SUBMITTED TO THE CITY ENGINEER AND THE CITY WATER DIVISION FOR APPROVAL PRIOR TO INSTALLATION.
- LOCATION OF BACKFLOW ASSEMBLY SHALL BE APPROVED BY THE CITY WATER DIVISION PRIOR TO INSTALLATION.
- ALL BACKFLOW PREVENTION ASSEMBLIES SHALL BE TESTED WITHIN 10 DAYS OF INITIAL USE BY A LICENSED BACKFLOW ASSEMBLY TESTER.
- ALL BACKFLOW PREVENTION ASSEMBLIES ARE TO BE TESTED ANNUALLY BY A CERTIFIED TESTER AND REPAIRS OR MAINTENANCE COMPLETED AS NEEDED. ANNUALLY SUBMIT TEST RESULTS TO THE CITY WATER DIVISION.

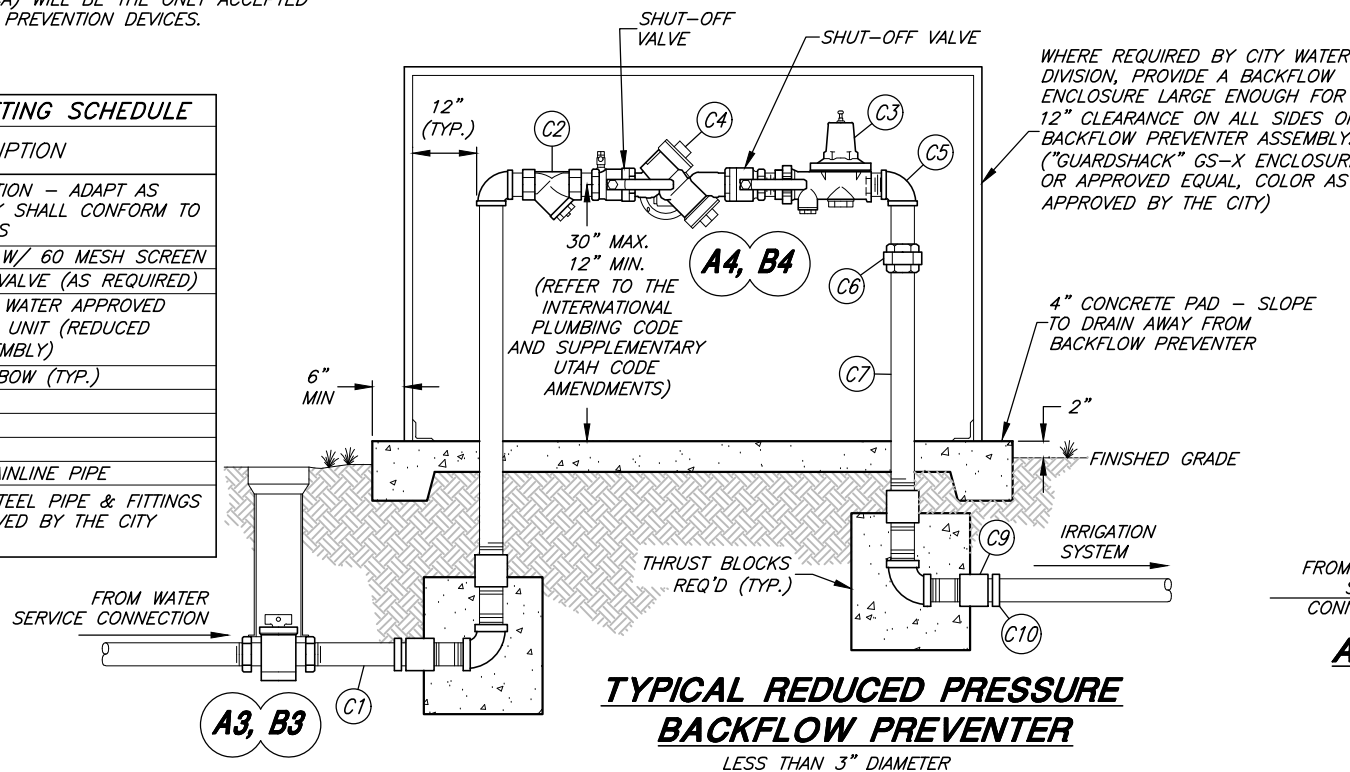


TYPICAL COMMERCIAL / INDUSTRIAL DEVELOPMENT POINT OF CONNECTION SCHEMATIC DIAGRAM
NOT TO SCALE

REDUCED PRESSURE ASSEMBLY (RP) NOTES:

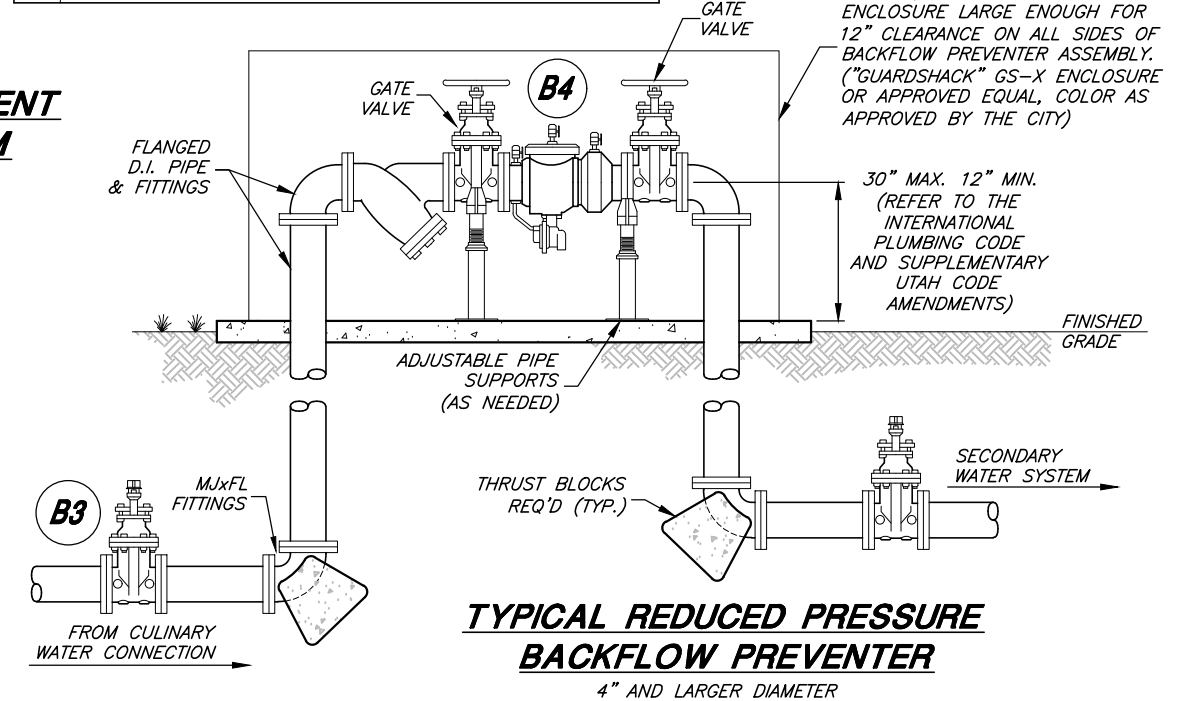
- AN RP ASSEMBLY SHALL BE INSTALLED WHEN A SECONDARY SERVICE IS CONNECTED TO THE CULINARY WATER SYSTEM.
- THE RP ASSEMBLY SHALL BE INSTALLED IN A HORIZONTAL POSITION ONLY.
- RP ASSEMBLIES SHALL NOT BE INSTALLED IN A PIT.
- THE BODY OF THE RP ASSEMBLY SHALL BE A MINIMUM OF 12 INCHES FROM ANY WALLS, CEILINGS, OR ENCUMBRANCES AND SHALL BE READILY ACCESSIBLE FOR TESTING, REPAIR AND/OR MAINTENANCE.
- THE BOTTOM OF THE RP ASSEMBLY SHALL BE A MINIMUM OF 12 INCHES ABOVE THE GROUND FLOOR.
- RP VALVE ASSEMBLY AND PIPES TO MATCH SECONDARY LATERAL/MAIN SIZE.
- THE BACKFLOW PREVENTER SHALL BE BRONZE FOR 6-INCH AND SMALLER VALVES, AND EPOXY COATED DUCTILE IRON FOR 8-INCH AND LARGER VALVES.
- BACKFLOW PREVENTION DEVICES SHALL BE SELECTED FROM A LIST OF APPROVED DEVICES SET FORTH BY THE UTAH DIVISION OF DRINKING WATER. REDUCED PRESSURE ASSEMBLIES (RP) AND CITY ENGINEER APPROVED DOUBLE CHECK VALVE ASSEMBLIES (DCA) WILL BE THE ONLY ACCEPTED STYLES OF BACKFLOW PREVENTION DEVICES.

TYPICAL PIPE & FITTING SCHEDULE	
NO.	DESCRIPTION
C1	TO POINT OF CONNECTION - ADAPT AS NECESSARY. ALL WORK SHALL CONFORM TO ALL APPLICABLE CODES
C2	BRASS WYE STRAINER W/ 60 MESH SCREEN
C3	PRESSURE REDUCING VALVE (AS REQUIRED)
C4	DIVISION OF DRINKING WATER APPROVED BACKFLOW PREVENTER UNIT (REDUCED PRESSURE ZONE ASSEMBLY)
C5	BRASS 90 DEGREE ELBOW (TYP.)
C6	BRASS UNION (TYP.)
C7	BRASS PIPE (TYP.)
C9	BRASS COUPLING
C10	PIPE ADAPTER AND MAINLINE PIPE
THE USE OF GALVANIZED STEEL PIPE & FITTINGS IS ACCEPTED WHEN APPROVED BY THE CITY WATER DIVISION	

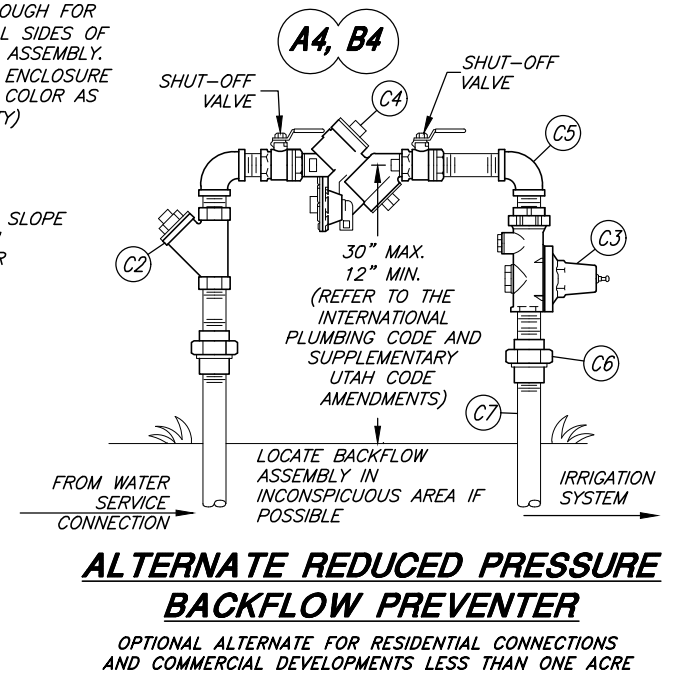


TYPICAL REDUCED PRESSURE BACKFLOW PREVENTER
LESS THAN 3" DIAMETER

COMMERCIAL DEV. POINT OF CONNECTION	
NO.	DESCRIPTION
B1	WATER SERVICE CONNECTION
B2	CITY STANDARD CULINARY WATER SERVICE METER (SEE SHEET CW1 AND/OR CW4)
B3	GATE VALVE & VALVE BOX
B4	STOP & WASTE VALVE AND BOX
B5	BACKFLOW ASSEMBLY (REDUCED PRESSURE ZONE ASSEMBLY)
B6	WATER SERVICE PIPE
B7	QUICK COUPLER/FOR BLOW OUT
B8	MANUAL DRAIN VALVE
	MASTER VALVE



TYPICAL REDUCED PRESSURE BACKFLOW PREVENTER
4" AND LARGER DIAMETER



ALTERNATE REDUCED PRESSURE BACKFLOW PREVENTER
OPTIONAL ALTERNATE FOR RESIDENTIAL CONNECTIONS AND COMMERCIAL DEVELOPMENTS LESS THAN ONE ACRE



Brett M. Jones
CITY ENGINEER
12/15/2022
DATE

REV.	DATE

SCALE:
N.T.S.

DESIGNED _____
DRAWN _____
CHECKED _____



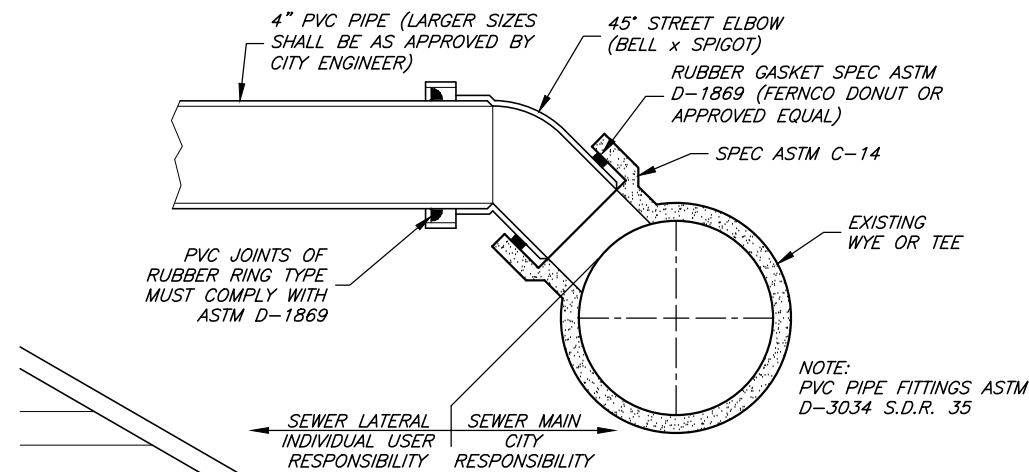
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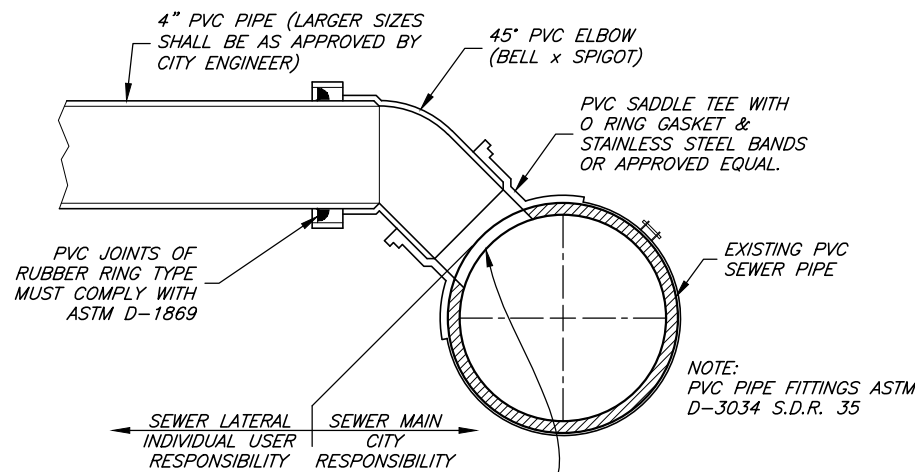
PUBLIC WORKS

BRIGHAM CITY CORPORATION
PUBLIC WORKS STANDARDS
REDUCE PRESSURE (RP) BACKFLOW PREVENTION ASSEMBLY

SHEET:
CW8
OF 45 SHEETS
0

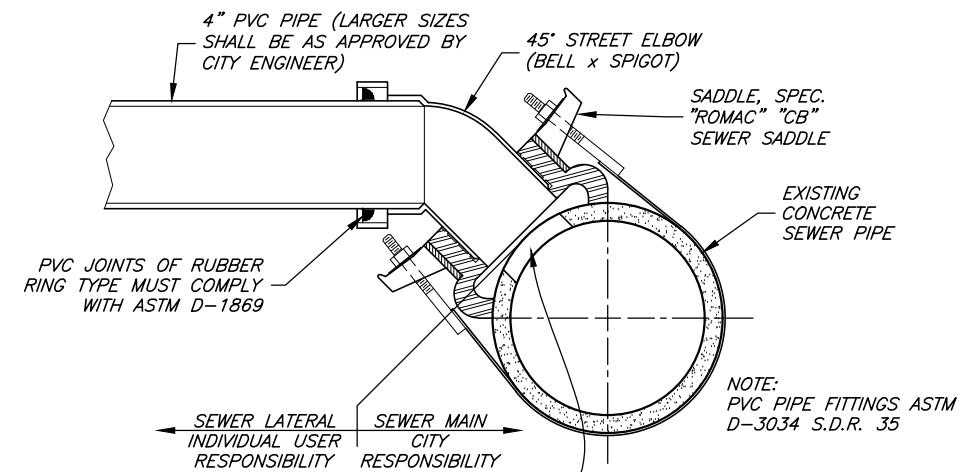


CONNECTING INTO EXISTING WYE OR TEE



TAPPING INTO EXISTING PVC PIPE

TAPPING INTO EXIST. PIPE & CONNECTING SADDLE TO BE FURNISHED & INSTALLED BY CONTRACTOR AND PAID FOR AS A PART OF THE CITY SEWER CONNECTION FEE.



TAPPING INTO EXISTING CONCRETE PIPE

TAPPING INTO EXIST. PIPE & CONNECTING SADDLE TO BE FURNISHED & INSTALLED BY CONTRACTOR AND PAID FOR AS A PART OF THE CITY SEWER CONNECTION FEE.

CLEANOUT NOTES:

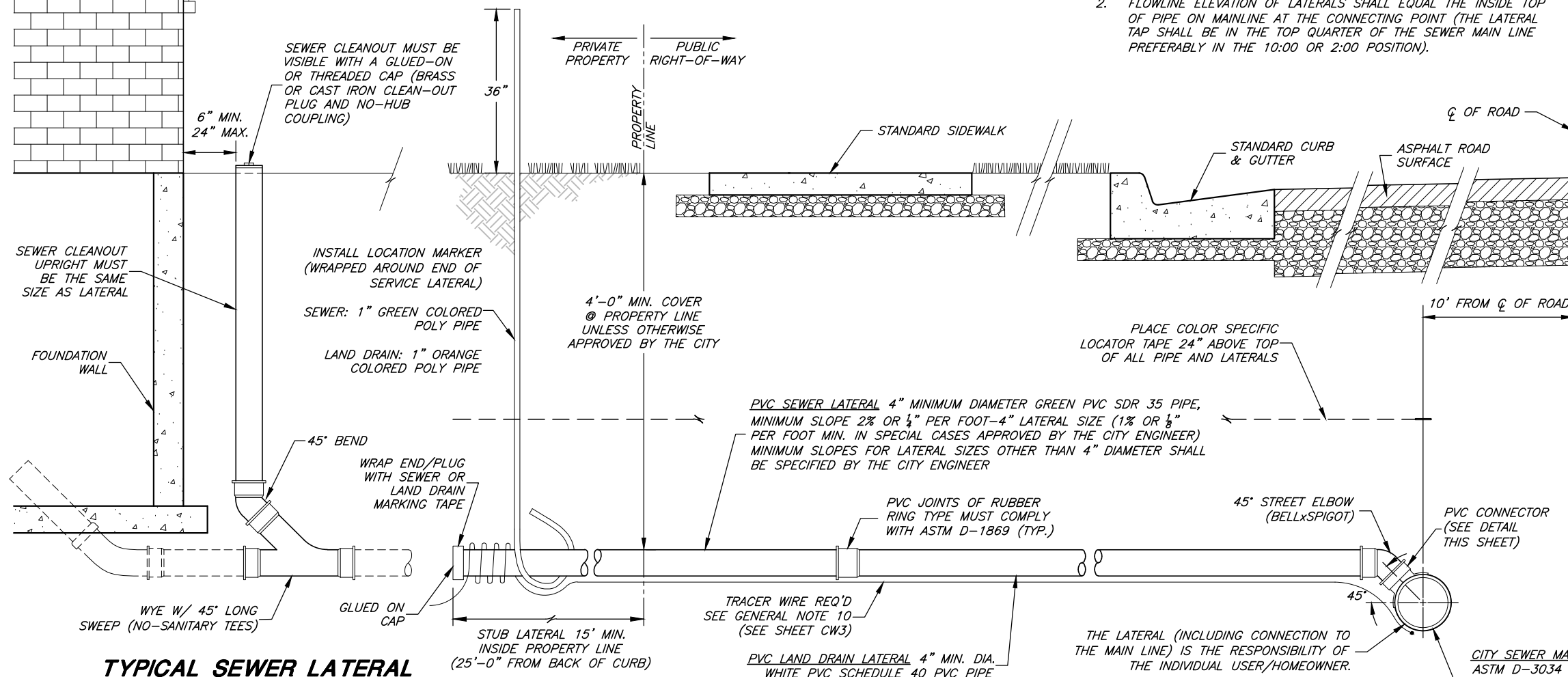
- A1. CLEANOUT EVERY 100' OR LESS.
- A2. CLEANOUT REQUIRED FOR EACH CHANGE OF DIRECTION IF THE TOTAL AGGREGATE CHANGE EXCEEDS 135'.

GENERAL NOTES:

1. ALL SANITARY SEWER LATERAL CONNECTIONS ON SEWER MAINS IN NEW SUBDIVISIONS SHALL BE MADE WITH IN LINE PRE-FORMED WYES OR TEES UNLESS OTHERWISE APPROVED BY THE CITY ENGINEER.
2. FLOWLINE ELEVATION OF LATERALS SHALL EQUAL THE INSIDE TOP OF PIPE ON MAINLINE AT THE CONNECTING POINT (THE LATERAL TAP SHALL BE IN THE TOP QUARTER OF THE SEWER MAIN LINE PREFERABLY IN THE 10:00 OR 2:00 POSITION).

GENERAL NOTES CONT.:

3. SANITARY SEWER SERVICE LATERAL CONNECTIONS SHALL NOT BE ALLOWED IN SEWER MANHOLES.
4. SANITARY SEWER MAINS AND LATERALS SHALL BE "GREEN" IN COLOR. LAND DRAIN MAINS AND LATERALS SHALL BE SCHEDULE 40 "WHITE" IN COLOR. IRRIGATION PIPES SHALL BE "PURPLE" IN COLOR. PREVIOUS YEARS PIPE COLORS MAY VARY THROUGHOUT THE CITY. CONTRACTOR TO VERIFY EXISTING PIPE PRIOR TO MAKING ANY CONNECTION.
5. INSERTA TEE PRODUCT IS **NOT** ALLOWED BY THE CITY.
6. ALL CLEANOUTS SHALL BE MARKED AND FITTED WITH A BRASS PLUG OR METAL LID FOR LOCATION PURPOSES.
7. ALL CULINARY WATER MAINS AND SERVICES MUST MAINTAIN A MINIMUM SEPARATION ABOVE ALL SEWER MAINS AND LATERALS OF 18" VERTICAL AND 10'-0" HORIZONTAL IN ACCORDANCE WITH THE STATE OF UTAH DIVISION OF DRINKING WATER (DDW) RULES SECTION R309-550-7. EXCEPTIONS MUST BE APPROVED BY DDW.
8. ALL SANITARY SEWER LINES SHALL BE INSPECTED BY MEANS OF VIDEO CAMERA WHEN CONSTRUCTED.
9. DOWNSTREAM LAND DRAIN CONNECTION TO AN EXISTING STORM DRAIN SYSTEM IS REQUIRED.
10. TRACER WIRE SHALL BE INSTALLED ON ALL LAND DRAIN LATERALS.
11. THE LOCATION OF THE SEWER LATERAL MUST BE DOCUMENTED AND SUBMITTED TO THE CITY ON SCALED AS-BUILT DRAWINGS.
12. REQUESTS FOR INSPECTION ON WORK SHALL BE GIVEN 24 HOURS IN ADVANCE OF THE WORK STARTING.
13. IT SHALL BE THE RESPONSIBILITY OF THE PERSON RESPONSIBLE FOR CONSTRUCTION TO ENSURE THAT INSPECTIONS TAKE PLACE WHERE AND WHEN REQUIRED.
14. IT SHALL BE THE RESPONSIBILITY OF THE PERSON RESPONSIBLE FOR CONSTRUCTION TO FOLLOW THE OCCUPATIONAL SAFETY AND HEALTH ADMINISTRATION CONSTRUCTION STANDARDS FOR EXCAVATIONS.
15. A CUT PERMIT FROM BRIGHAM CITY CORPORATION MUST BE ON JOB SITE ANYTIME WORK IS IN THE PUBLIC RIGHT-OF-WAY.
16. ALL ORANGEBURG PIPE (CURRENTLY IN SERVICE) AND CLAY TILE PIPE LATERALS ENCOUNTERED DURING CONSTRUCTION SHALL BE COMPLETELY REMOVED FROM THE MAIN TO THE BACK OF CURB AND REPLACED TO CURRENT STANDARDS.



TYPICAL SEWER LATERAL HOME CONNECTION WITH CLEANOUT

TYPICAL SEWER / LAND DRAIN LATERALS CONNECTION



Brett M. Jones
CITY ENGINEER
12/15/2022
DATE

REV.	DATE

SCALE:
N.T.S.

DESIGNED _____
DRAWN _____
CHECKED _____



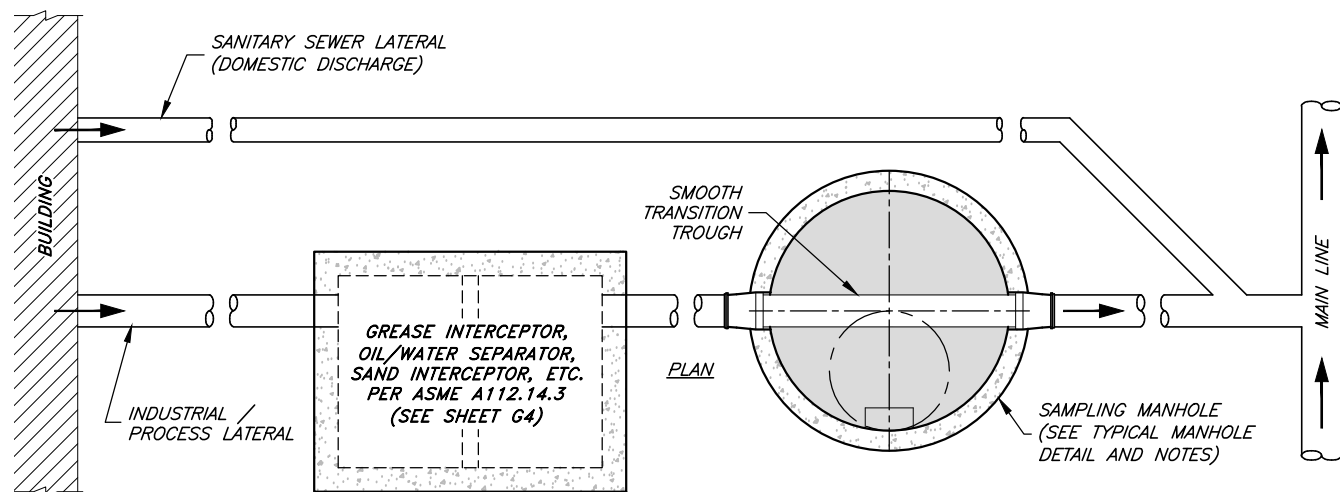
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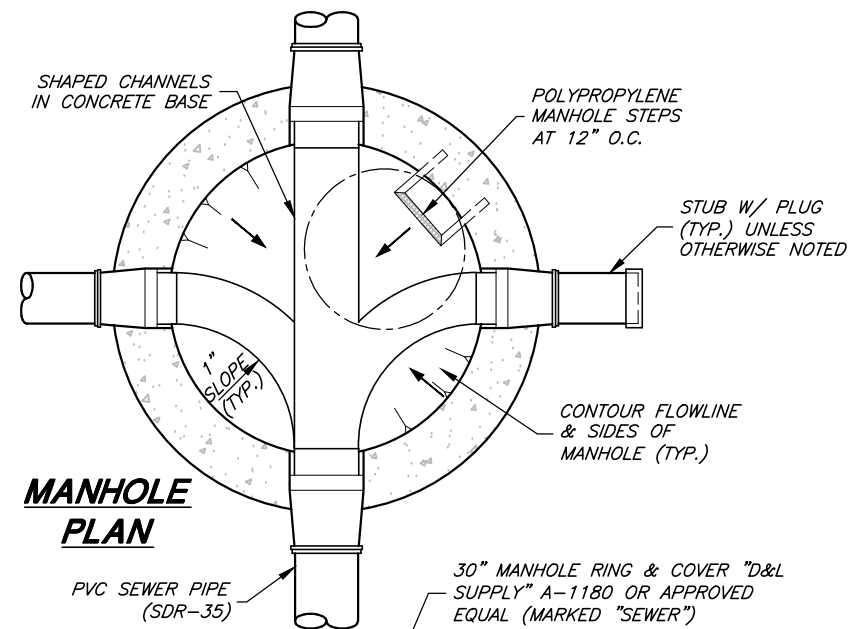
PUBLIC WORKS

BRIGHAM CITY CORPORATION
PUBLIC WORKS - SANITARY SEWER SYSTEM STANDARDS
SEWER / LAND DRAIN LATERAL & MAIN LINE CONNECTION DETAILS

SHEET:
SS1
OF 45 SHEETS
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SAMPLING MANHOLE



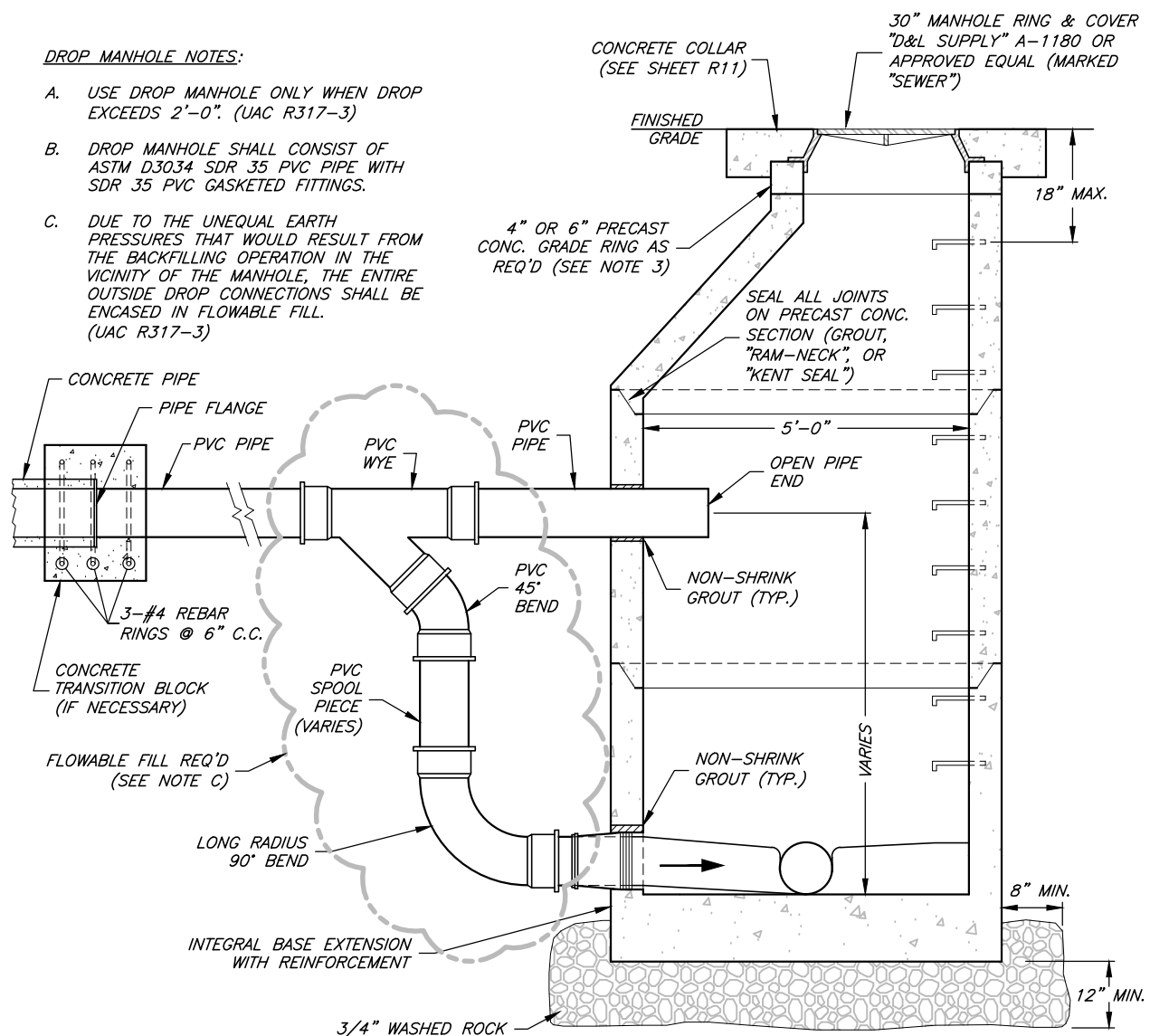
MANHOLE PLAN

GENERAL NOTES:

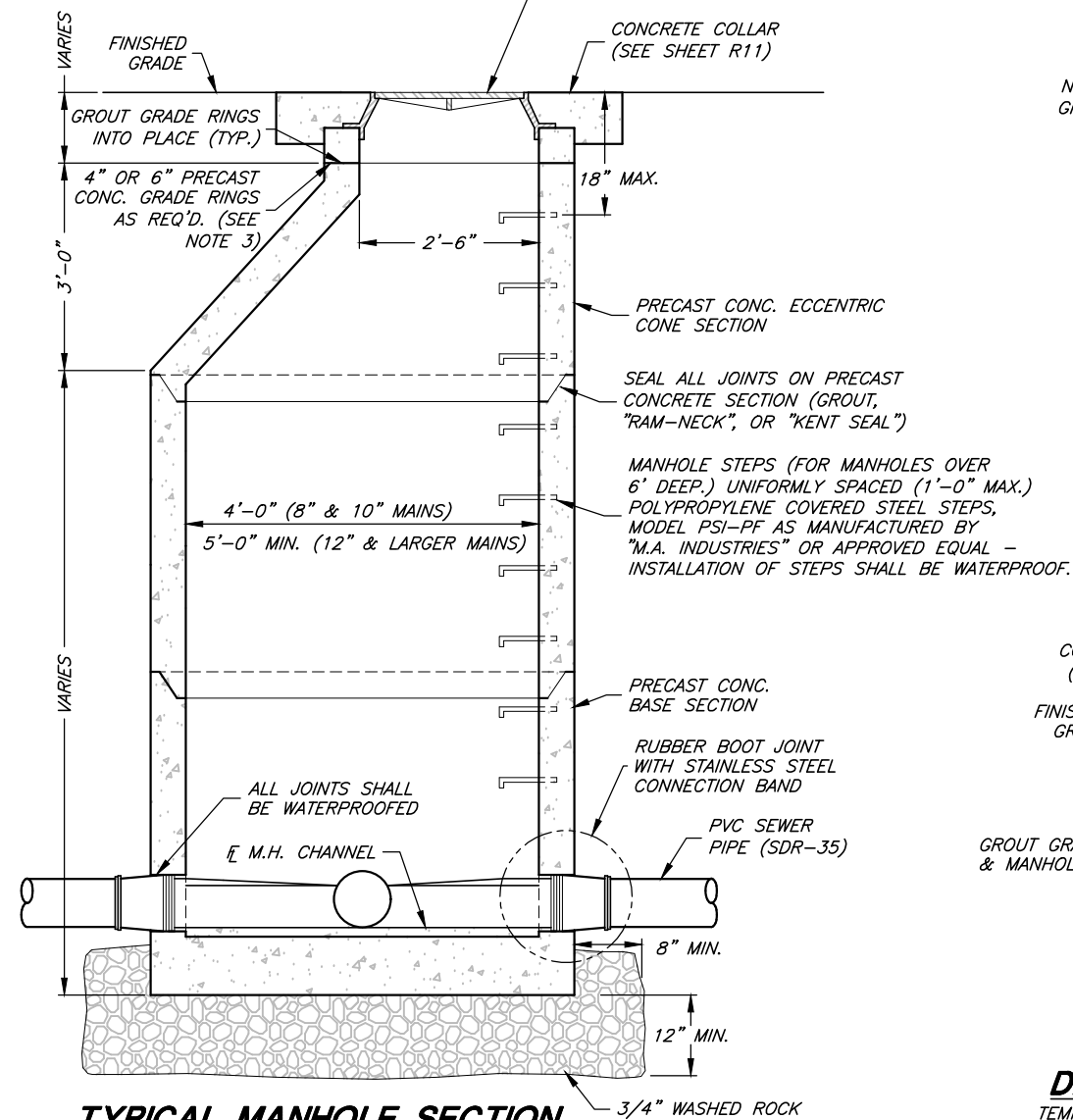
1. SECURE INVERTS IN ALL MANHOLES DURING CONSTRUCTION SO AS TO PREVENT GRAVEL AND OTHER DEBRIS FROM COLLECTING INSIDE.
2. A LARGER DIAMETER MANHOLE MAY BE REQUIRED BY THE DESIGN ENGINEER AFTER EVALUATION OF THE NUMBER, SIZE, AND ANGLE OF THE PIPES THAT CONNECT TO THE MANHOLE.
3. NO MORE THAN 12" OF GRADE RINGS TO BE ALLOWED ON ANY MANHOLE.
4. ALL TERMINATING SEWER & LAND DRAIN MAINS SHALL END WITH A CITY STANDARD MANHOLE.
5. SERVICE LATERAL CONNECTIONS SHALL NOT BE ALLOWED IN SEWER MANHOLES.
6. ALL SANITARY SEWER LINES SHALL BE INSPECTED BY MEANS OF VIDEO CAMERA AND AIR TESTED WHEN CONSTRUCTED. SEE APWA 33 08 00 AND CITY MODIFICATIONS FOR MORE INFORMATION.
7. WHERE THE DIFFERENCE IN ELEVATION BETWEEN THE INCOMING SEWER AND MANHOLE INVERT IS LESS THAN 24 INCHES, THE INVERT SHOULD BE FILLETED.
8. FLAT MANHOLE RINGS & COVERS (SLAB CONSTRUCTION) ARE NOT ALLOWED ON ANY MANHOLE CONE SECTION.

DROP MANHOLE NOTES:

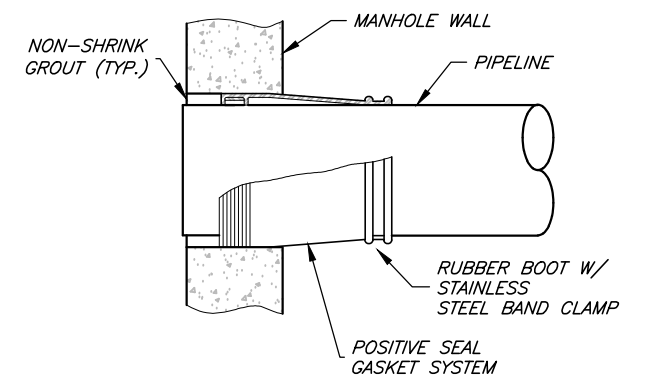
- A. USE DROP MANHOLE ONLY WHEN DROP EXCEEDS 2'-0". (UAC R317-3)
- B. DROP MANHOLE SHALL CONSIST OF ASTM D3034 SDR 35 PVC PIPE WITH SDR 35 PVC GASKETED FITTINGS.
- C. DUE TO THE UNEQUAL EARTH PRESSURES THAT WOULD RESULT FROM THE BACKFILLING OPERATION IN THE VICINITY OF THE MANHOLE, THE ENTIRE OUTSIDE DROP CONNECTIONS SHALL BE ENCASED IN FLOWABLE FILL. (UAC R317-3)



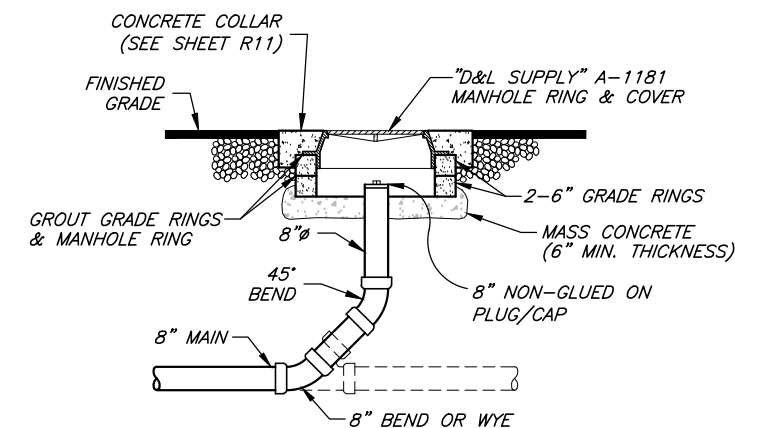
TYPICAL DROP MANHOLE SECTION



TYPICAL MANHOLE SECTION



RUBBER BOOT DETAIL



DRAIN/SEWER MAINLINE CLEANOUT
TEMPORARY (USE ONLY UPON APPROVAL FROM THE CITY ENGINEER)



Brett M. Jones
CITY ENGINEER
12/15/2022
DATE

REV.	DATE

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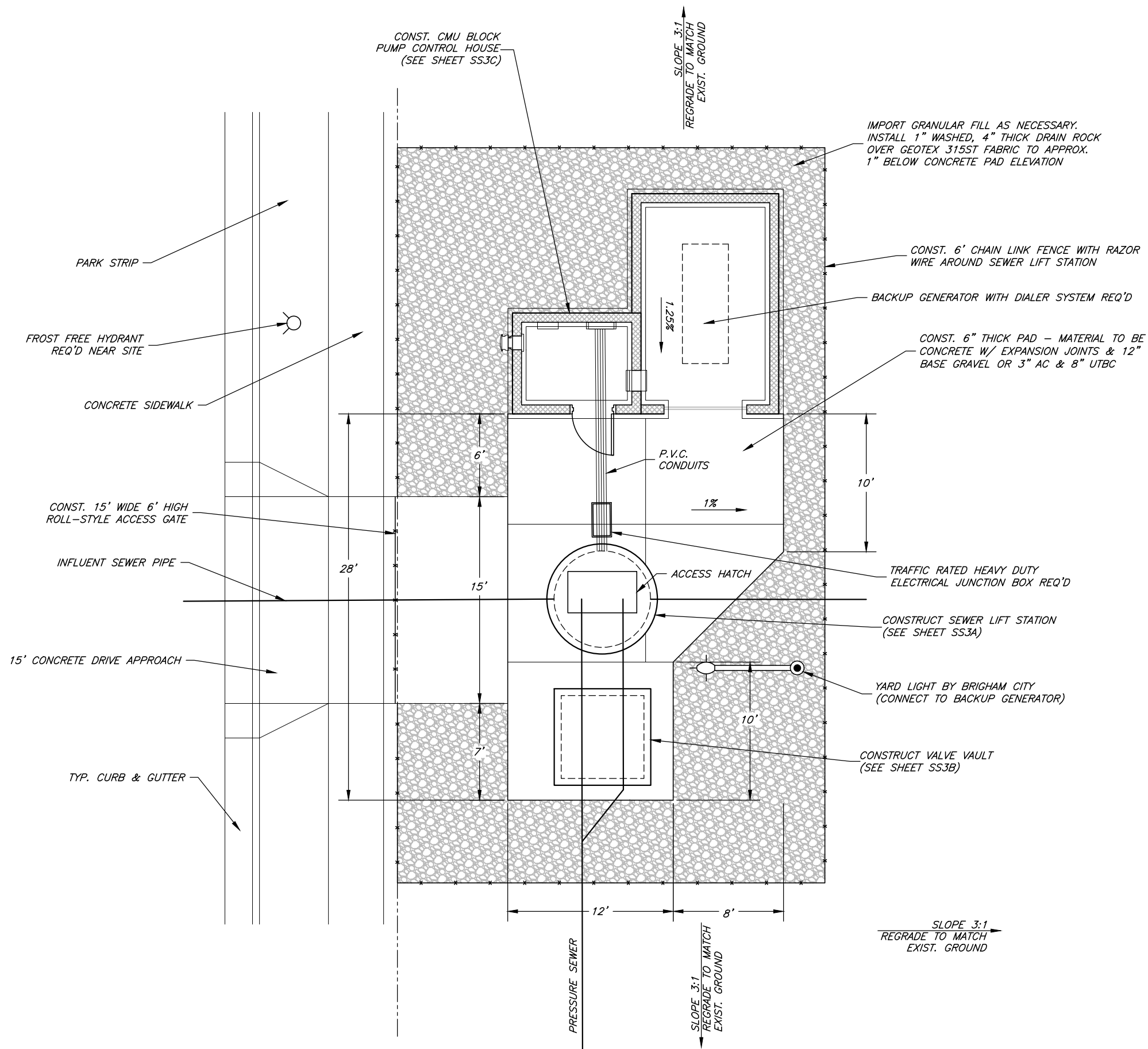
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PUBLIC WORKS

BRIGHAM CITY CORPORATION
PUBLIC WORKS - SANITARY SEWER SYSTEM STANDARDS
SANITARY SEWER MANHOLES DETAILS

SHEET:
SS2
OF 45 SHEETS
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Brett M. Jones
CITY ENGINEER
12/15/2022
DATE

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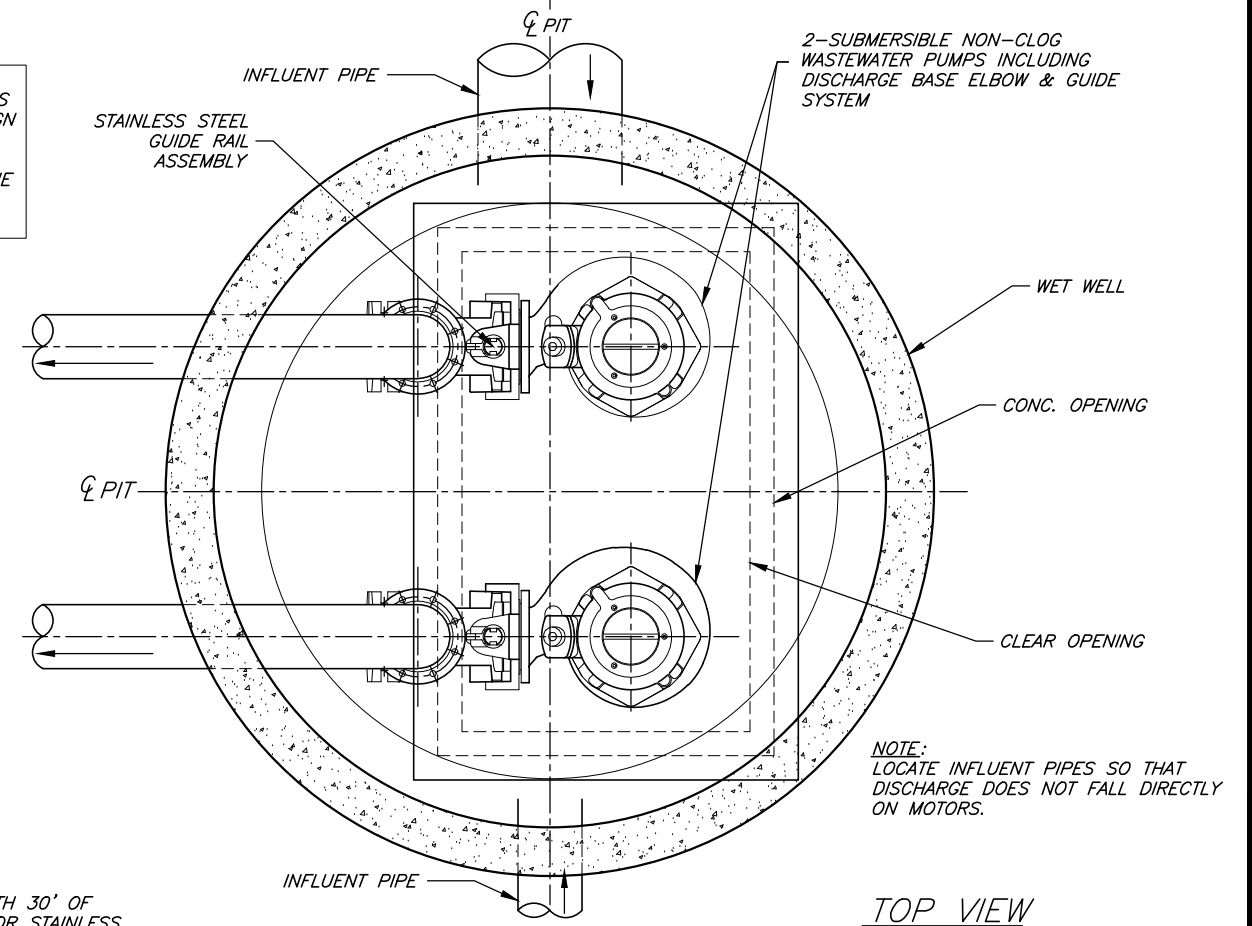
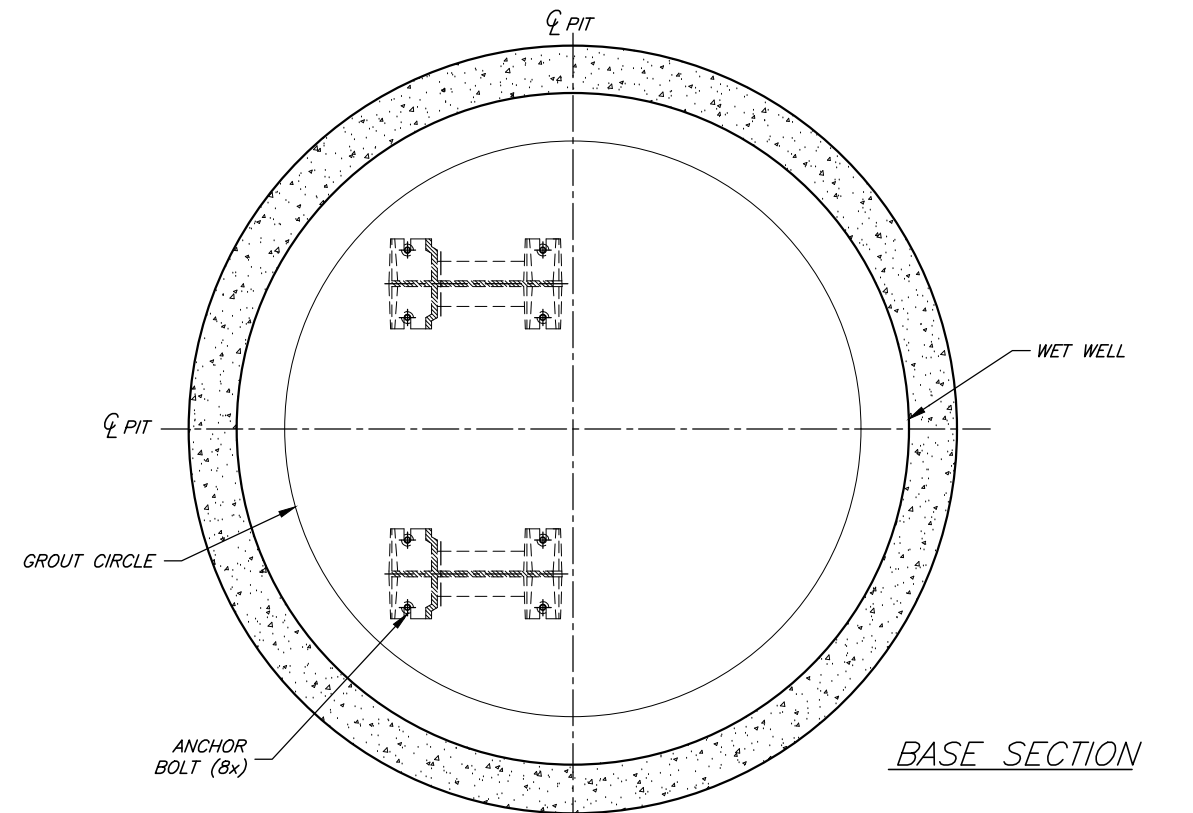
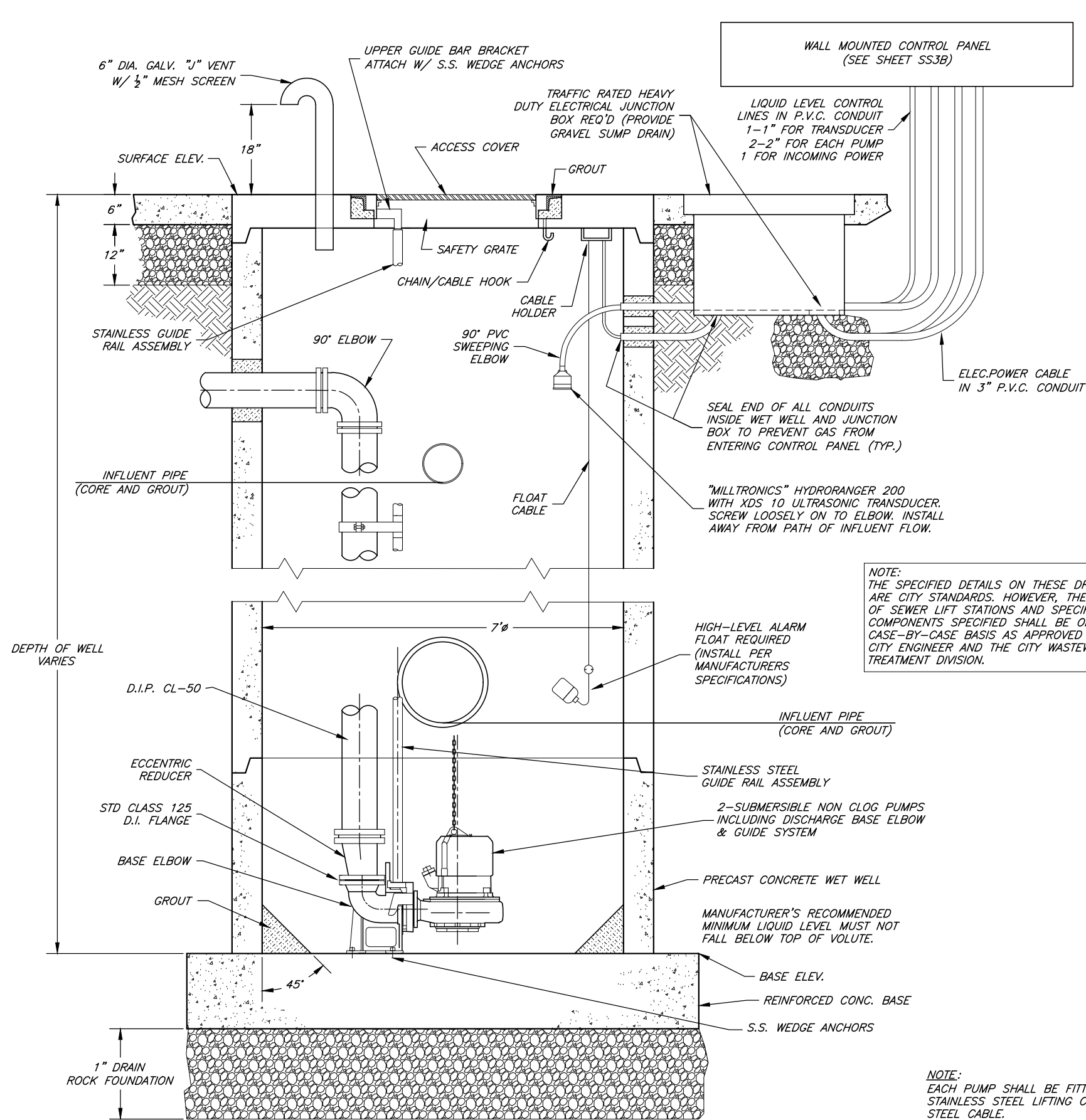
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PUBLIC WORKS

BRIGHAM CITY CORPORATION
PUBLIC WORKS - SANITARY SEWER SYSTEM STANDARDS
TYPICAL REGIONAL SEWER LIFT STATION SITE PLAN

SHEET:
SS3
OF 45 SHEETS
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Brett M. Jones
CITY ENGINEER
12/15/2022
DATE

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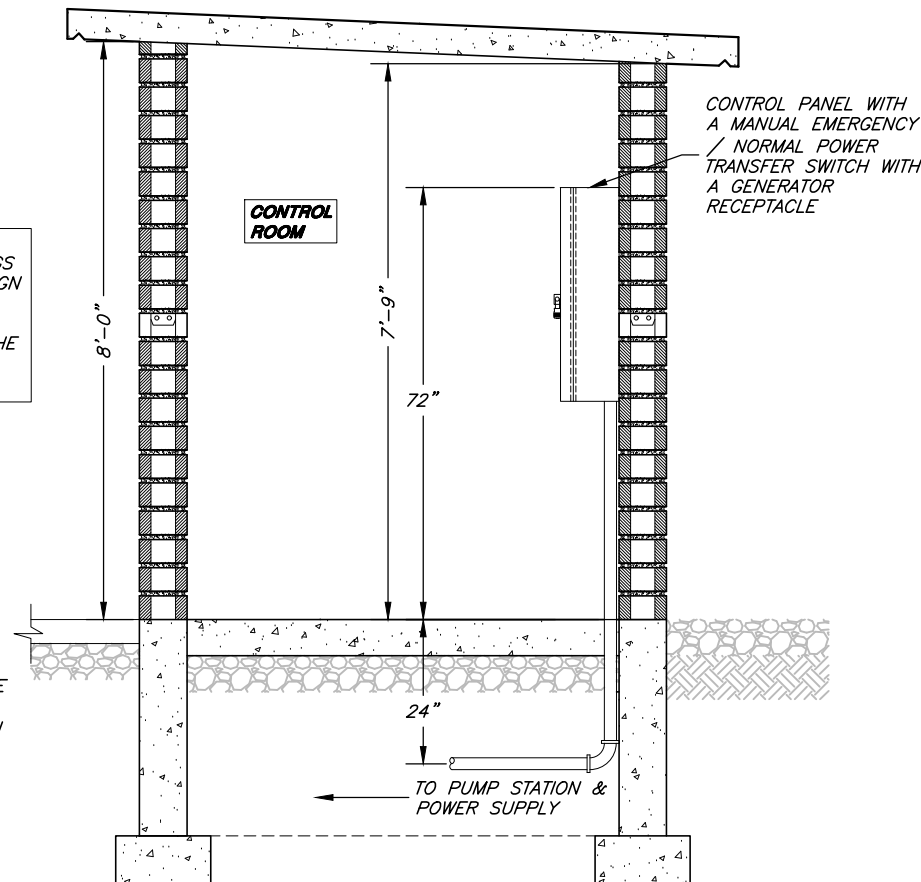
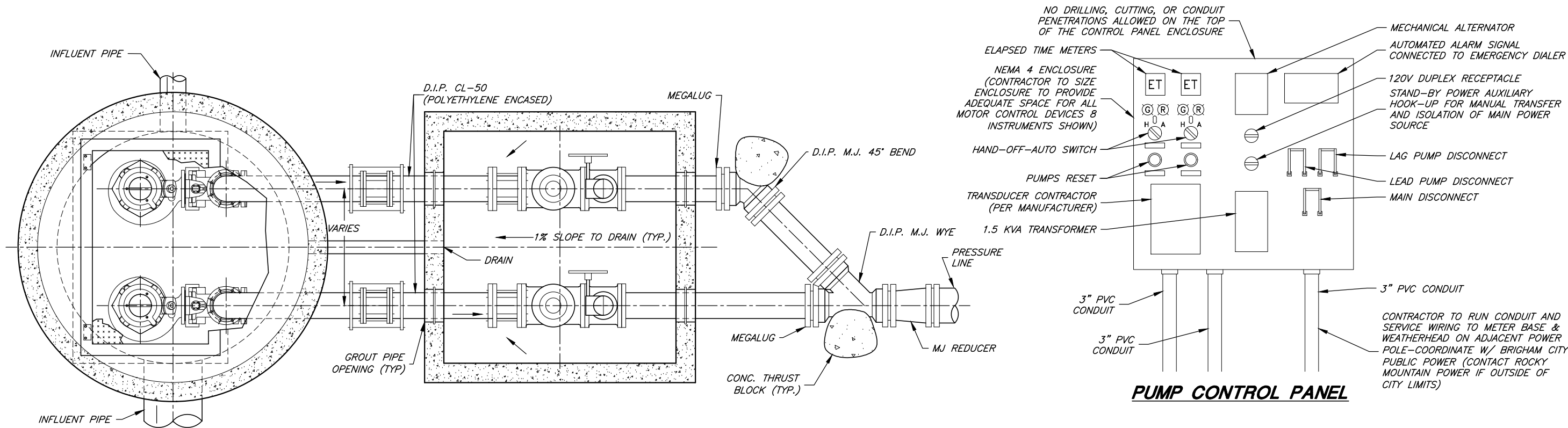
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BRIGHAM CITY CORPORATION
PUBLIC WORKS - SANITARY SEWER SYSTEM STANDARDS
TYPICAL REGIONAL SEWER LIFT STATION

SHEET:
SS3A
OF 45 SHEETS
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CONTRACTOR SHALL PROVIDE 3/4" BARE COPPER GROUNDING ROD 8 I/O BARE COPPER GROUNDING CONDUCTOR FOR CONTINUOUS GROUND.



Brett M. Jones
CITY ENGINEER
12/15/2022
DATE

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SCALE:
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DRAWN _____
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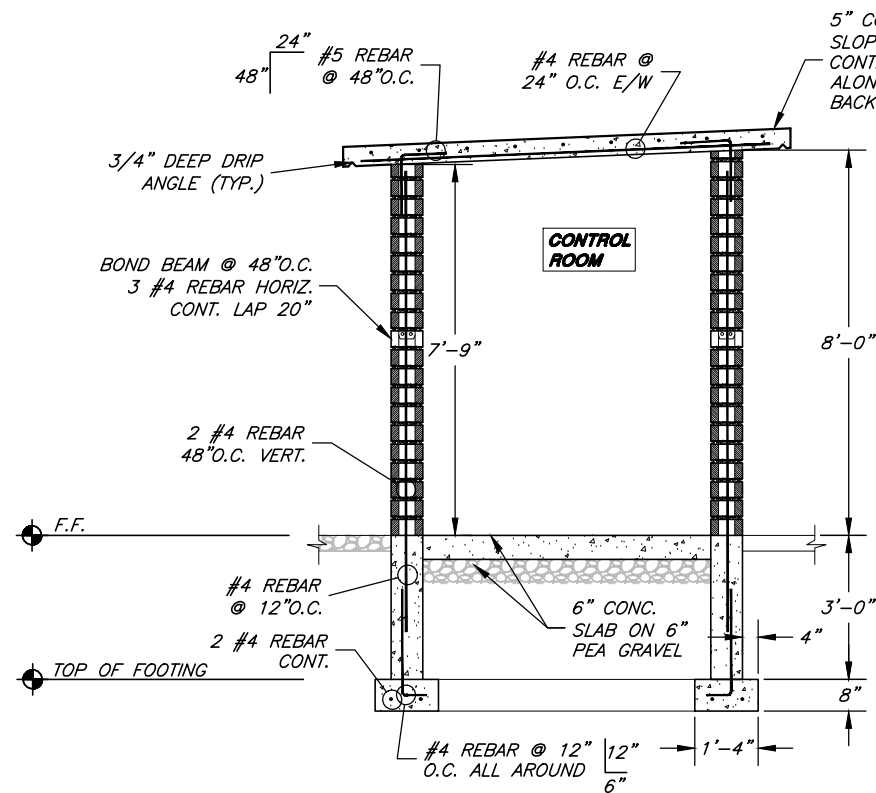
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PUBLIC WORKS

BRIGHAM CITY CORPORATION
PUBLIC WORKS - SANITARY SEWER SYSTEM STANDARDS
REGIONAL SEWER LIFT STATION VALVE VAULT & CONTROL PANEL DETAILS

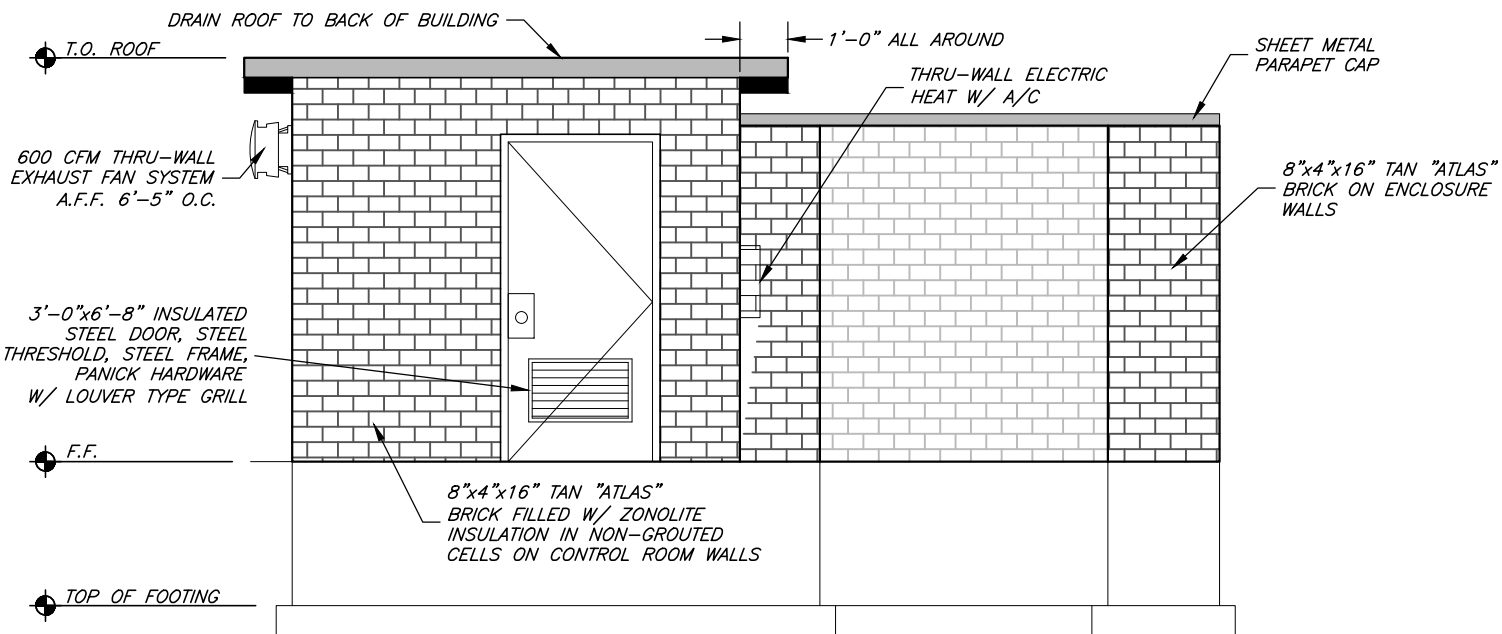
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OF 45 SHEETS
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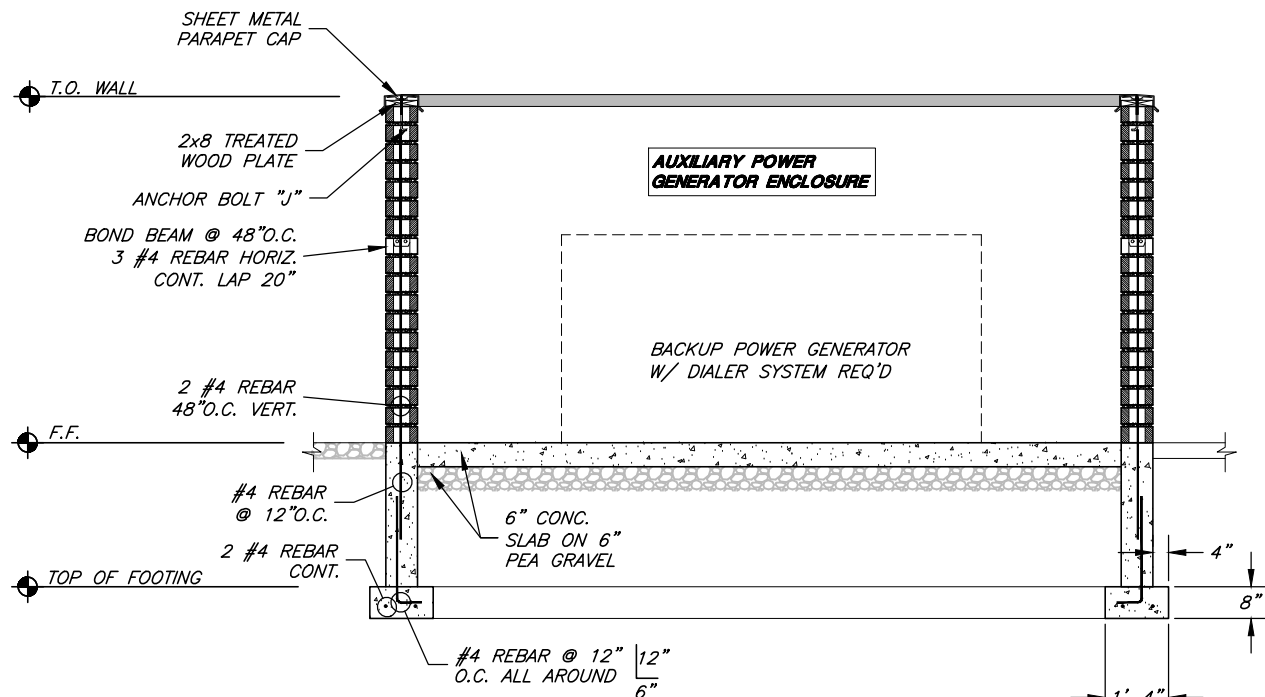
BUILDING SECTION 16 B

NOTES:

1. ALL ELECTRICAL WIRING TO BE ENCLOSED IN CONDUIT.
2. ALL CONSTRUCTION TO BE IN ACCORDANCE WITH THE CURRENT ADOPTED I.B.C. AND OTHER APPLICABLE CODES.
3. ALL CONCRETE SHALL HAVE A 28 DAY COMPRESSIVE STRENGTH OF 4000 PSI.
4. ALL REINFORCED BARS #4 OR GREATER SHALL BE GRADE 60.
5. ELECTRICAL SYSTEM BY OTHERS. GENERAL CONTRACTOR TO COORDINATE LOCATION OF ELECTRICAL APPURTENANCES WITH ELECTRICAL CONTRACTOR. TRENCHING, CONDUIT, AND BACKFILLING IS THE RESPONSIBILITY OF THE GENERAL CONTRACTOR.
6. ALL EXPOSED CONCRETE EXTERIOR SURFACES SHALL HAVE A HAND RUBBED CONCRETE FINISH.
7. FOOTINGS SHALL REST ON UNDISTURBED GROUND OR SHALL SIT ON IMPORTED GRANULAR BACKFILL COMPACTED TO 95% MAX. DRY DENSITY.
8. DOOR SHALL BE PAINTED W/ 1 PRIMER COAT AND 2 FINISH COATS OF ENAMEL PAINT. COLOR TO BE SPECIFIED BY THE CITY WASTEWATER TREATMENT DIVISION.

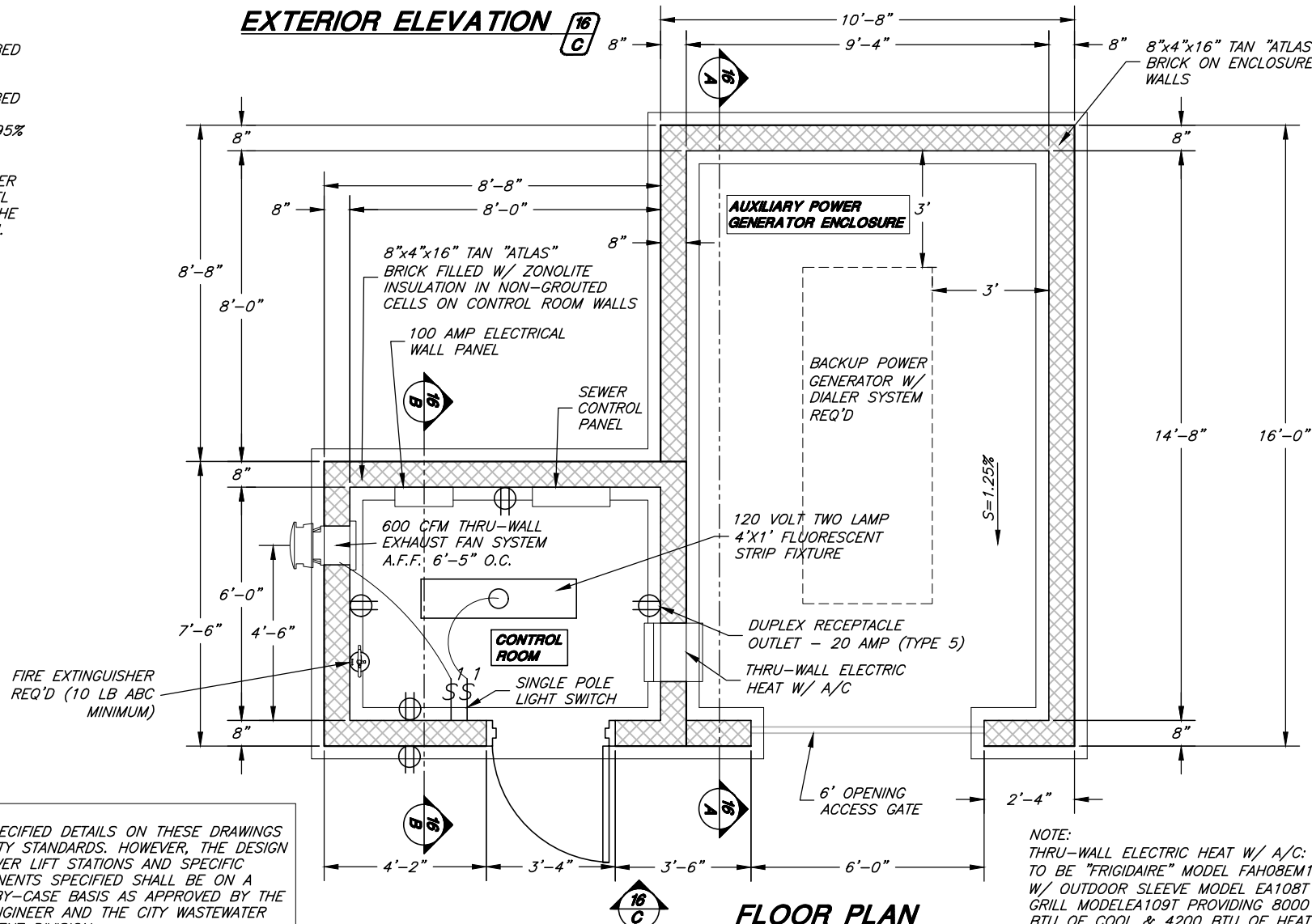


EXTERIOR ELEVATION 16 C



BUILDING SECTION 16 A

NOTE:
THE SPECIFIED DETAILS ON THESE DRAWINGS ARE CITY STANDARDS. HOWEVER, THE DESIGN OF SEWER LIFT STATIONS AND SPECIFIC COMPONENTS SPECIFIED SHALL BE ON A CASE-BY-CASE BASIS AS APPROVED BY THE CITY ENGINEER AND THE CITY WASTEWATER TREATMENT DIVISION.



FLOOR PLAN

NOTE:
THRU-WALL ELECTRIC HEAT W/ A/C: TO BE "FRIGIDAIRE" MODEL FAH08EM1T W/ OUTDOOR SLEEVE MODEL EA108T & GRILL MODELEA109T PROVIDING 8000 BTU OF COOL & 4200 BTU OF HEAT CAPACITY OR APPROVED EQUAL



Brett M. Jones
CITY ENGINEER
12/15/2022
DATE

REV.	DATE

SCALE:
N.T.S.

DESIGNED _____
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PUBLIC WORKS

BRIGHAM CITY CORPORATION
PUBLIC WORKS - SANITARY SEWER SYSTEM STANDARDS
REGIONAL SEWER LIFT STATION CONTROL BUILDING

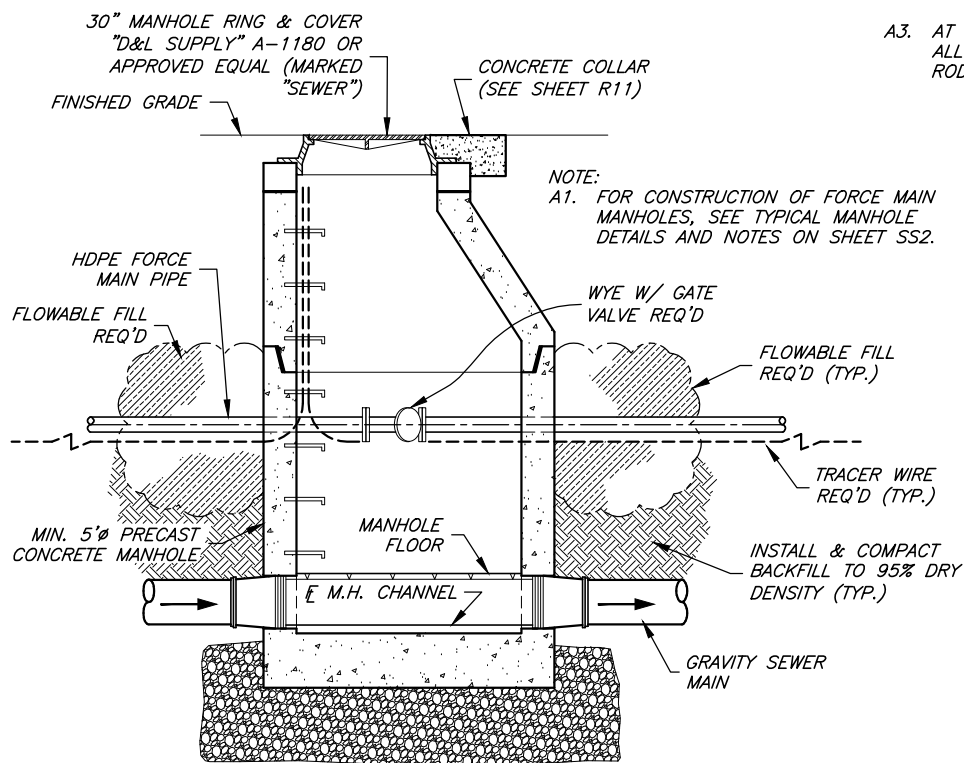
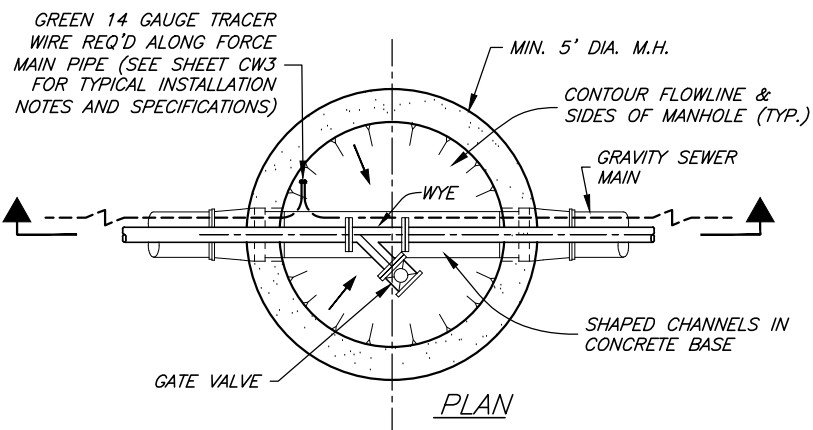
SHEET:
SS3C
OF 45 SHEETS
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PIPE & FITTING SCHEDULE

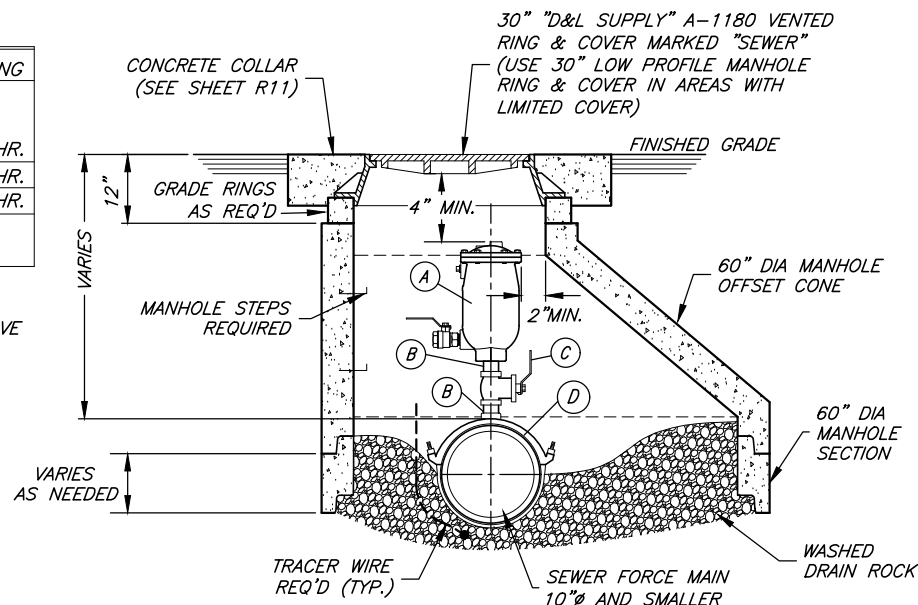
NO.	DESCRIPTION	FITTING
A	2" WASTEWATER AIR RELEASE VALVE "VAL MATIC" MODEL # 49A W/ OPTIONAL VACUUM CHECK ON THE OUTLET	THR.
B	2" BRASS PIPE	THR.
C	2" BALL VALVE (1/4 TURN 200 PSI MIN.)	THR.
D	2" NYLON COATED SERVICE SADDLE W/ STAINLESS STEEL STRAPS "ROMAC" MODEL # 202NS	

NOTES:

- WHERE SEWAGE WATER QUALITY IS ADEQUATE AS DICTATED BY THE CITY ENGINEER, AN A.R.I. D040 OR APPROVED EQUAL VALVE MAY BE SPECIFIED.



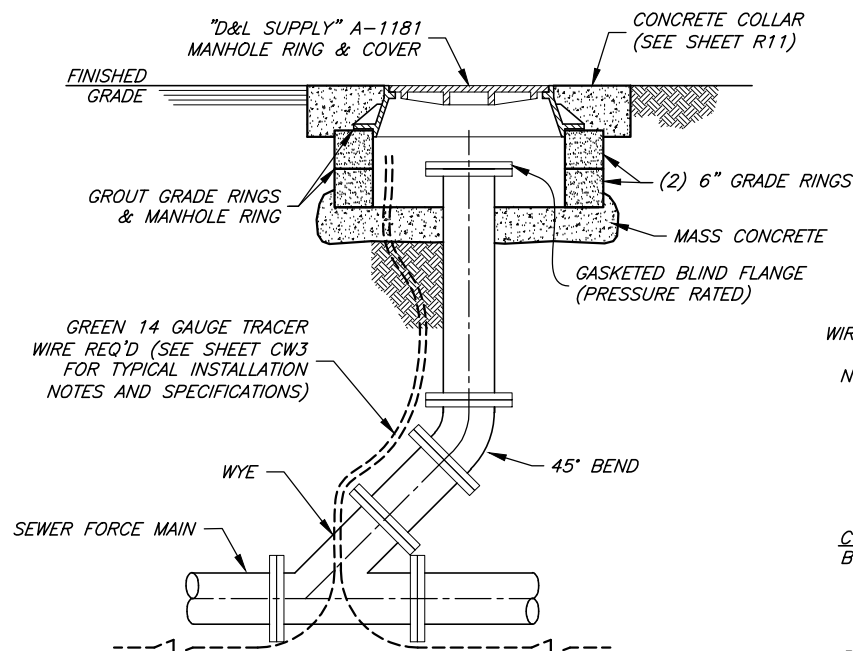
FORCE MAIN CLEANOUT MANHOLE
WHERE SPECIFIED BY THE WASTEWATER TREATMENT DIVISION



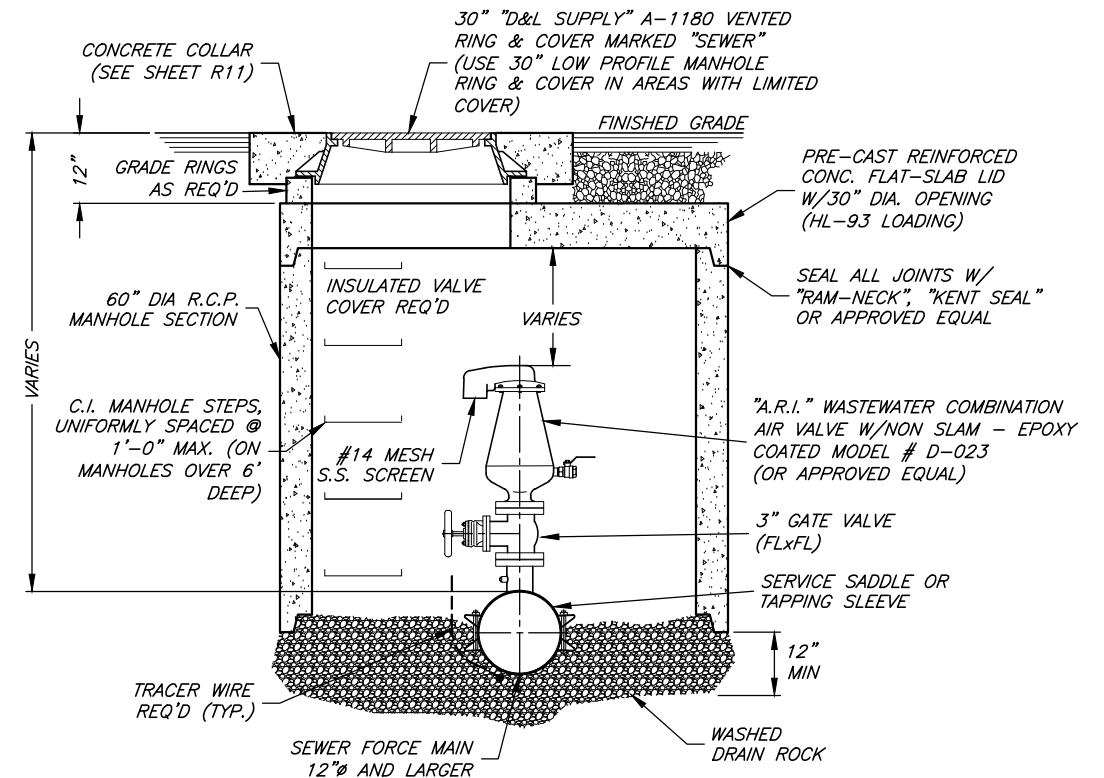
TYPICAL 2" WASTEWATER AIR RELEASE VALVE STATION
10" MAINS AND UNDER

GENERAL NOTES:

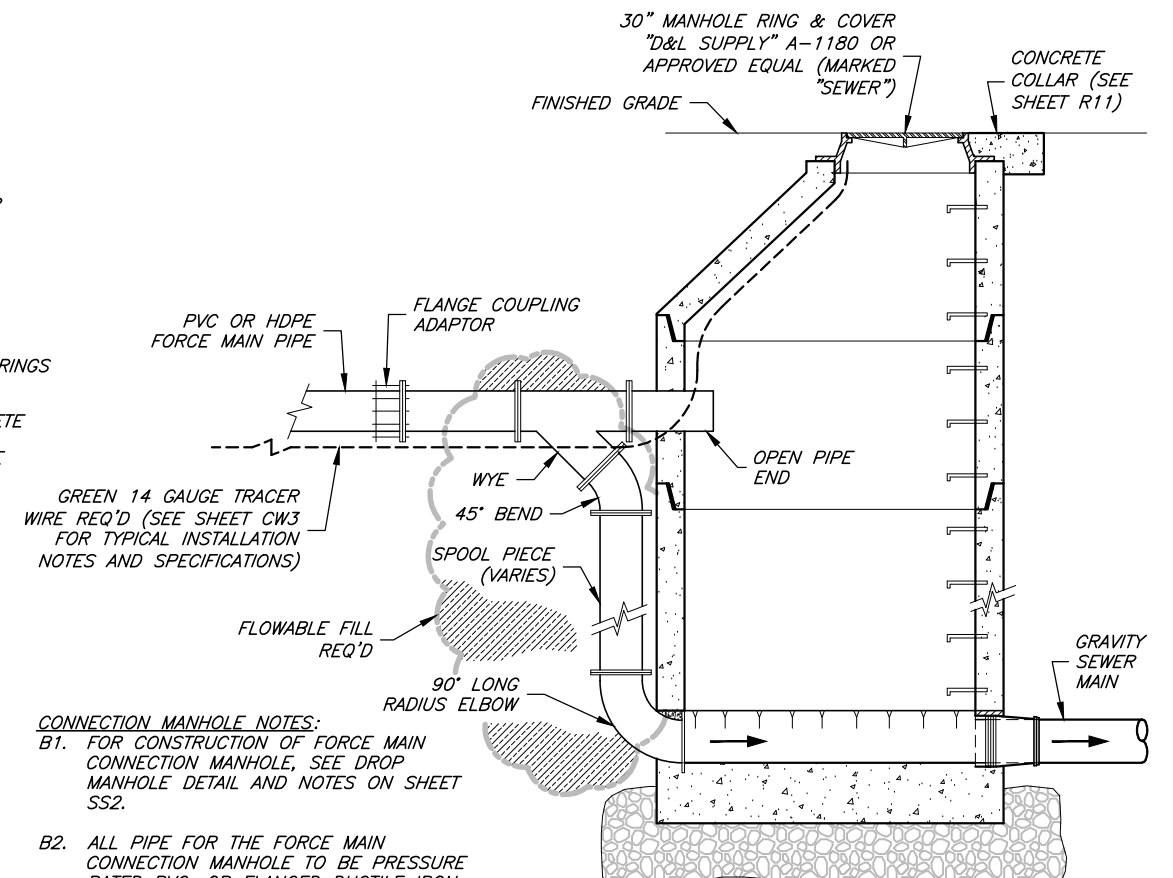
- ALL FORCE MAIN/PRESSURE SEWER LINES SHALL BE CONSTRUCTED W/ GREEN LOCATOR TAPE AND HAVE A MINIMUM 14 GA. GREEN COLORED INSULATED TRACER WIRE INSTALLED UNDER THE HAUNCHES OF THE PIPE PRIOR TO BACKFILLING.
- TRACER WIRES SHALL TERMINATE AT ALL CLEANOUTS, AIR RELEASE STATIONS, CONNECTING MANHOLES, AND DESIGNATED TRACER WIRE BOXES, OR AS OTHERWISE DIRECTED BY THE CITY ENGINEER.
- AT SERVICE SADDLES AND TAPPING SLEEVES, THE TRACER WIRE SHALL NOT BE ALLOWED TO BE PLACED BETWEEN THE SADDLE AND THE PIPE. A GROUNDING ROD SHALL BE INSTALLED AT ALL TRACER SYSTEM TERMINAL POINTS.



STANDARD SEWER FORCE MAIN CLEANOUT
4" TO 12" MAINS



TYPICAL 3" WASTEWATER AIR/VACUUM RELIEF STATION
12" MAINS AND LARGER



CONNECTION MANHOLE NOTES:
B1. FOR CONSTRUCTION OF FORCE MAIN CONNECTION MANHOLE, SEE DROP MANHOLE DETAIL AND NOTES ON SHEET SS2.

B2. ALL PIPE FOR THE FORCE MAIN CONNECTION MANHOLE TO BE PRESSURE RATED PVC, OR FLANGED DUCTILE IRON PIPE AS SPECIFIED BY THE CITY ENGINEER.

FORCE MAIN CONNECTION MANHOLE
FORCE MAIN CONNECTION TO GRAVITY SEWER SYSTEM



Brett M. Jones
CITY ENGINEER
12/15/2022
DATE

REV.	DATE

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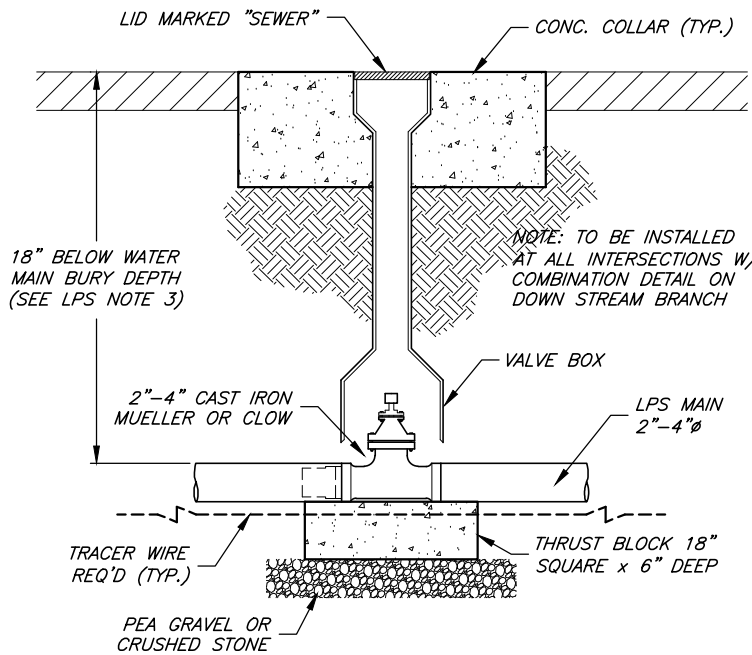


PUBLIC WORKS

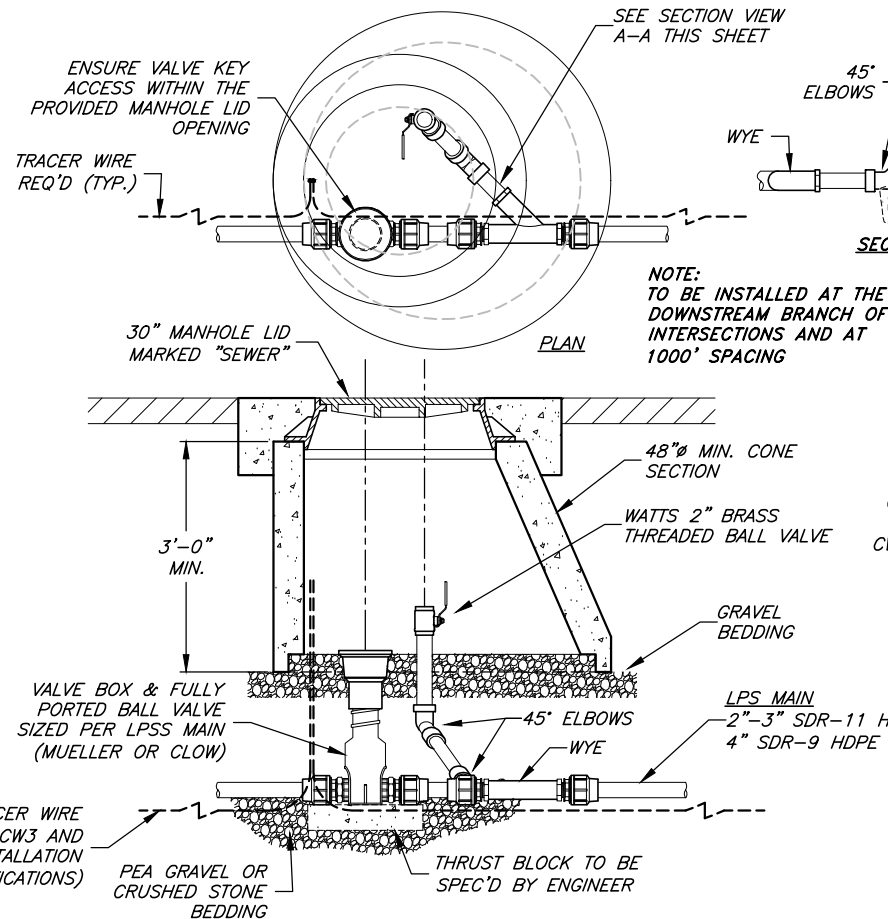
BRIGHAM CITY CORPORATION
PUBLIC WORKS - SANITARY SEWER SYSTEM STANDARDS

SEWER FORCE MAIN DETAILS

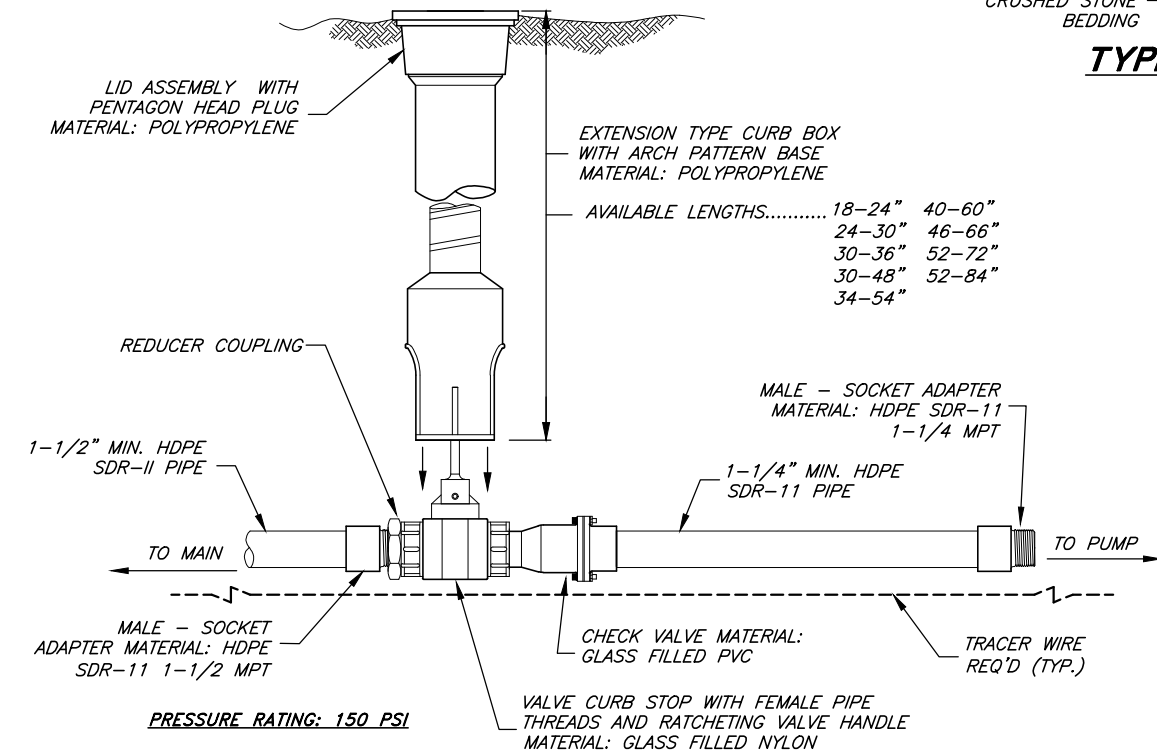
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VALVE ONLY DETAIL

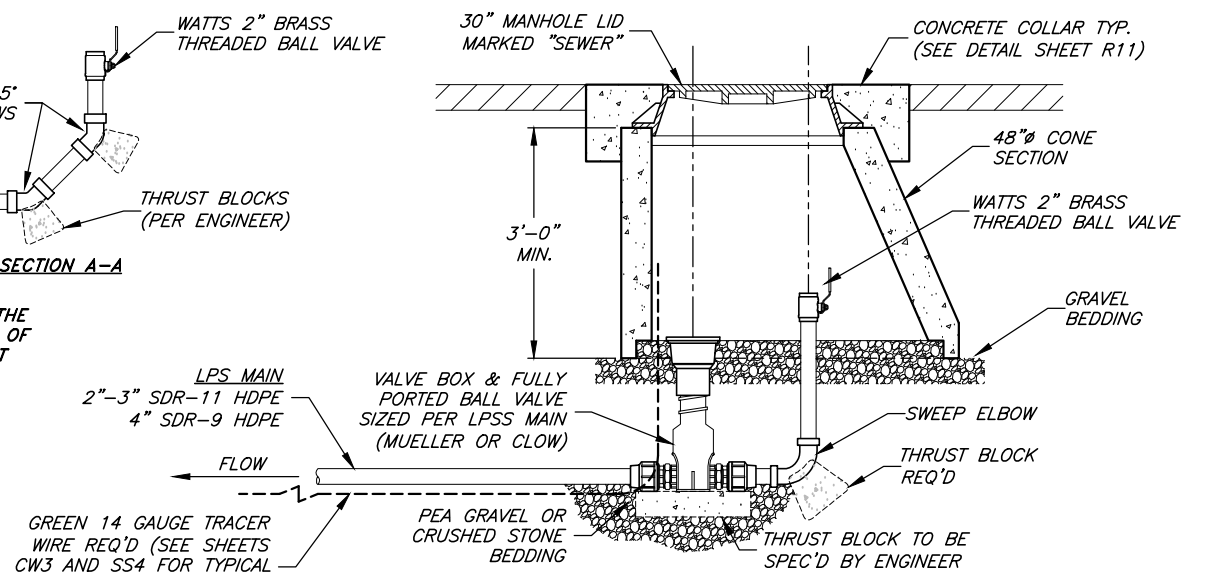


TYPICAL FLUSHING CONNECTION ON LPSS MAIN



ENLARGED PRESSURE SEWER LATERAL STUB DETAIL

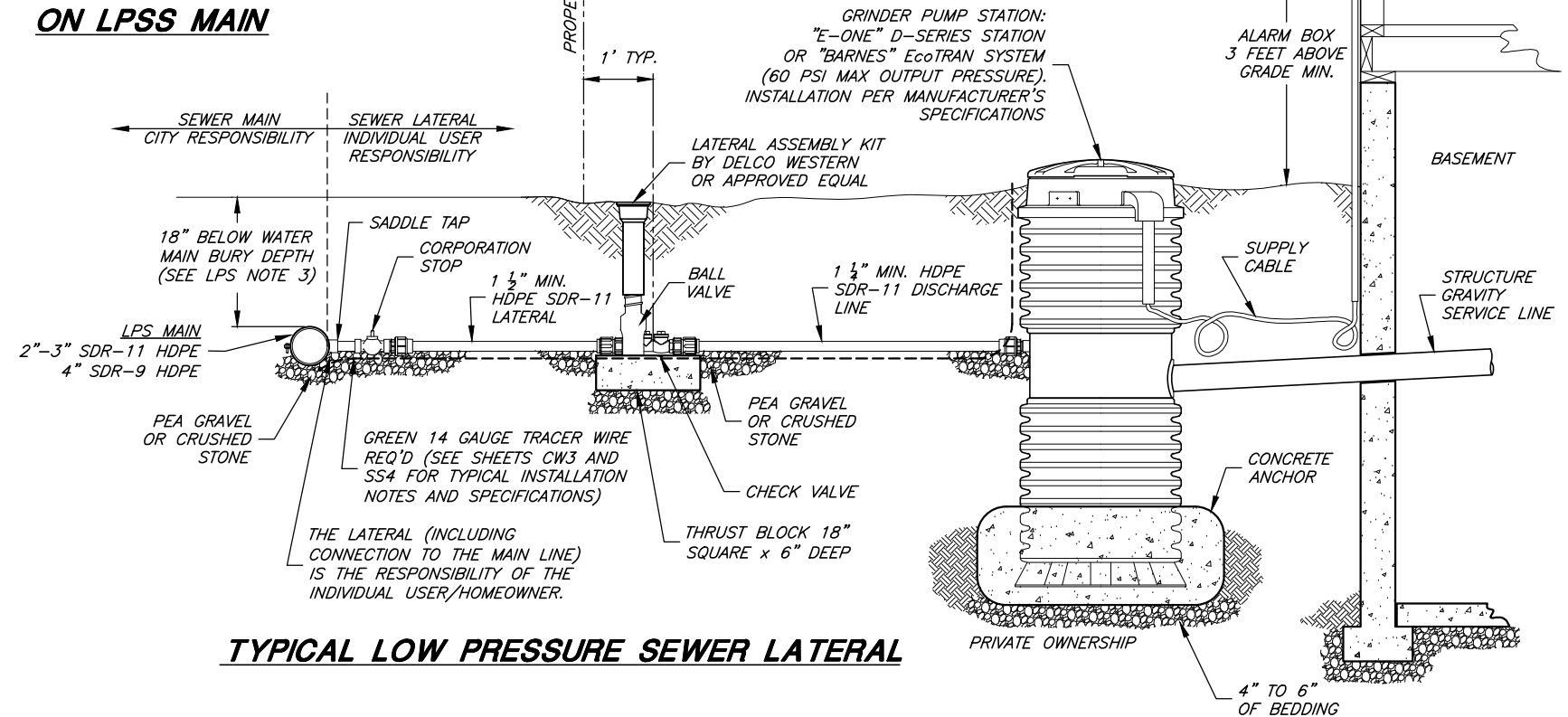
THE USE OF AN "E-ONE" UNI-LATERAL STAINLESS STEEL LATERAL VALVE KIT IS ACCEPTED BY THE CITY



TYPICAL TERMINAL FLUSHING CONNECTION
TO BE INSTALLED AT INITIATION OF PIPE

LOW PRESSURE SEWER (LPS) NOTES:

1. LOW PRESSURE SEWER SYSTEMS MAY ONLY BE USED WHEN ALL EFFORTS FOR A GRAVITY SEWER HAVE BEEN EXHAUSTED AS DETERMINED BY THE CITY ENGINEER AND CITY SEWER DIVISION.
2. ALL BENDS AND FITTINGS SHALL BE HDPE.
3. ALL CULINARY WATER MAINS AND SERVICES MUST MAINTAIN A MINIMUM SEPARATION ABOVE ALL SEWER MAINS AND LATERALS OF 18" VERTICAL AND 10'-0" HORIZONTAL IN ACCORDANCE WITH THE STATE OF UTAH DIVISION OF DRINKING WATER (DDW) RULES SECTION R309-550-7. EXCEPTIONS MUST BE APPROVED BY DDW.



TYPICAL LOW PRESSURE SEWER LATERAL



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CHECKED	_____

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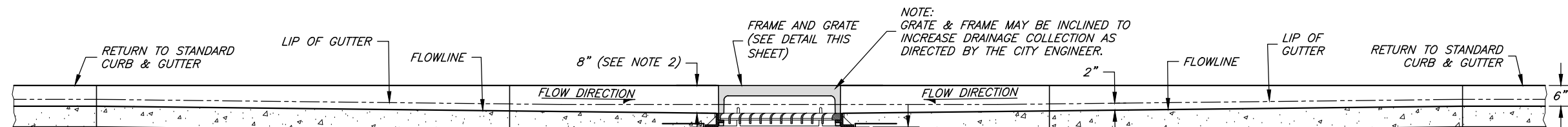
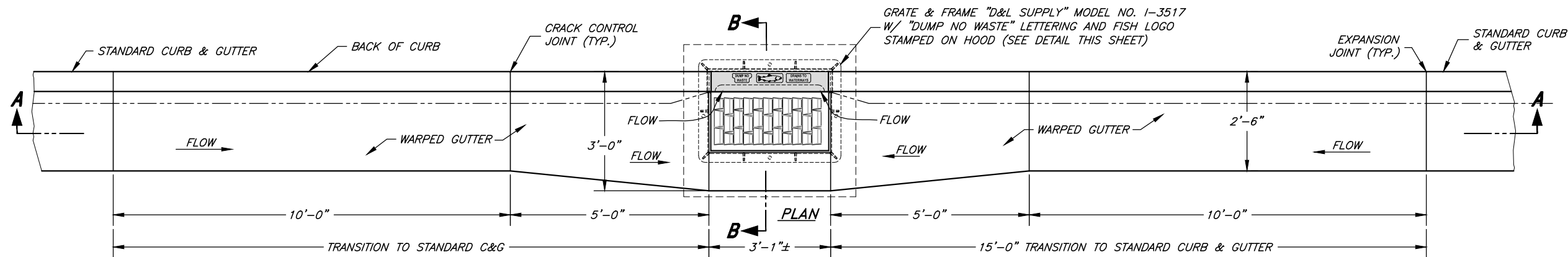
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PUBLIC WORKS

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LOW PRESSURE SEWER (LPS) SYSTEM DETAILS

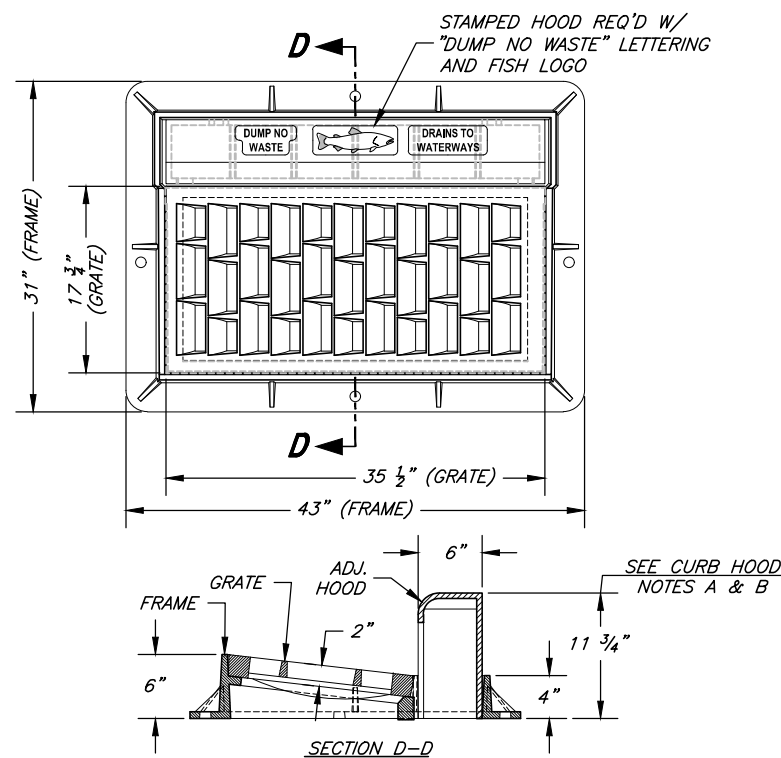
SHEET:
SS5
OF 45 SHEETS
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SINGLE HOODED CATCH BASIN

GENERAL NOTES:

- ALL CATCH BASIN BOX SIZES REFLECT DIMENSIONS FOR THE MINIMUM 15"Ø PIPE SIZE. BOX DIMENSIONS MUST INCREASE PROPORTIONALLY TO ACCOMMODATE LARGER PIPE SIZES.
- DEPTH MAY VARY FROM 6" TO 10" AS DIRECTED BY THE CITY ENGINEER.
- CAST-IN-PLACE CONCRETE CATCH BASINS CAN BE REPLACED WITH PRECAST CONCRETE CATCH BASINS WITH HL-93 DECK LOADING AND COMPARABLE SIZE.
- ALL BOXES SHALL BE FORMED ON THE INSIDE AND OUTSIDE OF THE BOX AND INSPECTED BY THE CITY PRIOR TO THE PLACING OF CONCRETE.
- DOUBLE CATCH BASINS WILL BE REQUIRED IN LOCATIONS SPECIFIED BY THE CITY ENGINEER (TYPICALLY IN LOW SPOTS OR WHERE ADDITIONAL INLET CAPACITY IS NEEDED). FOR CONSTRUCTION OF DOUBLE CATCH BASIN, SEE DETAILS AND NOTES ON SHEET SD2.
- STORM DRAIN LINES SHALL BE 15 INCH MINIMUM DIAMETER REINFORCED CONCRETE PIPE (RCP), OF APPROPRIATE CLASS.
- ALTERNATE STRUCTURE (E.G. COMBO BOXES) MAY BE USED WITH APPROVAL OF THE CITY ENGINEER. STRUCTURES SHALL FOLLOW APWA STANDARD PLANS AND BE A COMMON SIZE.

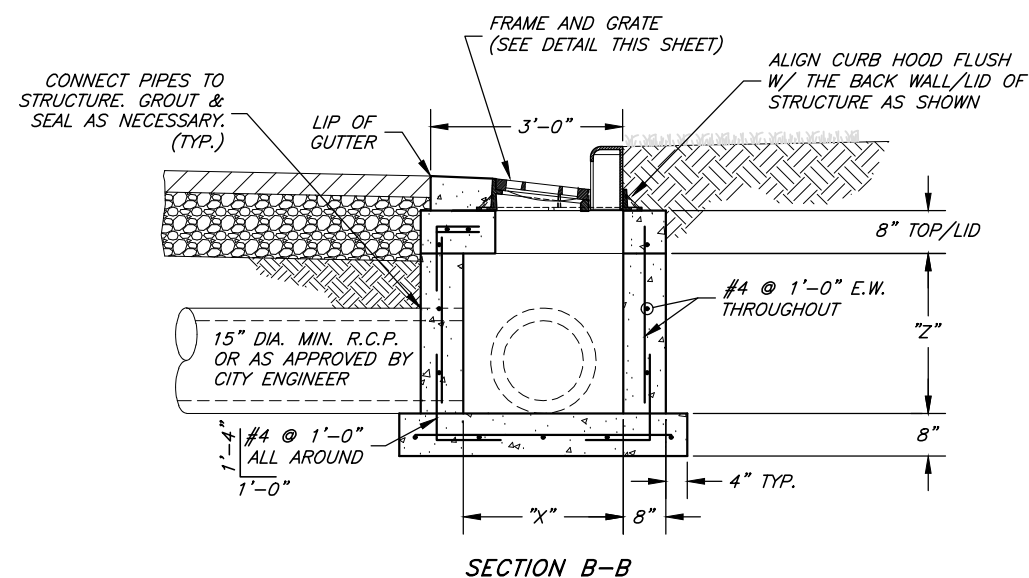


CURB HOOD INLET FRAME & TYPE "L" GRATE

"D&L SUPPLY" I-3517	
PRODUCT NUMBER:	
GRATE:	I-3517-02
ADJ HOOD:	I-3516-13
FRAME:	I-3516-R8

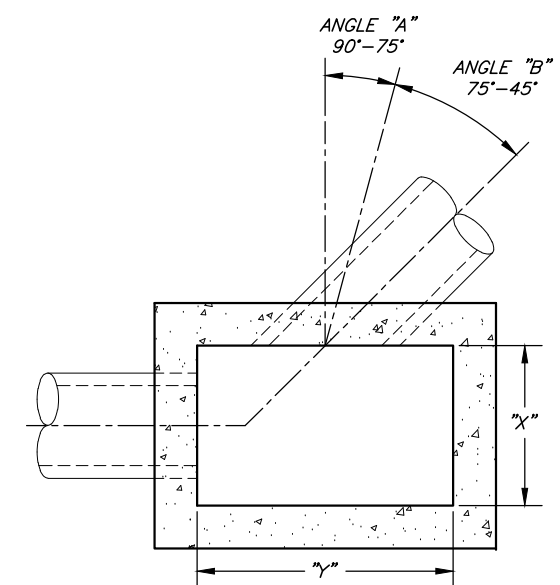
CURB HOOD NOTES:

- 13 1/8" APPROXIMATE MAXIMUM HEIGHT FOR THE ADJUSTABLE HOOD.
- 9 9/16" APPROXIMATE MINIMUM HEIGHT FOR THE ADJUSTABLE HOOD.



CATCH BASIN DIMENSION TABLE

PIPE SIZE (IN.)	"X"	SINGLE CATCH BASIN		"Z" MIN.
		"Y" (ANGLE A)	"Y" (ANGLE B)	
15	2'-6"	3'-0"	3'-0"	2'-0"
18	2'-6"	3'-0"	4'-0"	2'-6"
21	4'-0"	4'-0"	4'-0"	3'-0"
24	4'-0"	4'-0"	5'-0"	3'-0"
30	4'-0"	4'-0"	6'-0"	3'-6"
36	4'-0"	5'-0"	6'-0"	4'-0"
42	6'-0"	6'-0"	7'-0"	5'-0"
48	6'-0"	6'-0"	8'-0"	5'-6"



Brett M. Jones
CITY ENGINEER
12/15/2022
DATE

REV.	DATE

SCALE:
N.T.S.

DESIGNED _____
DRAWN _____
CHECKED _____



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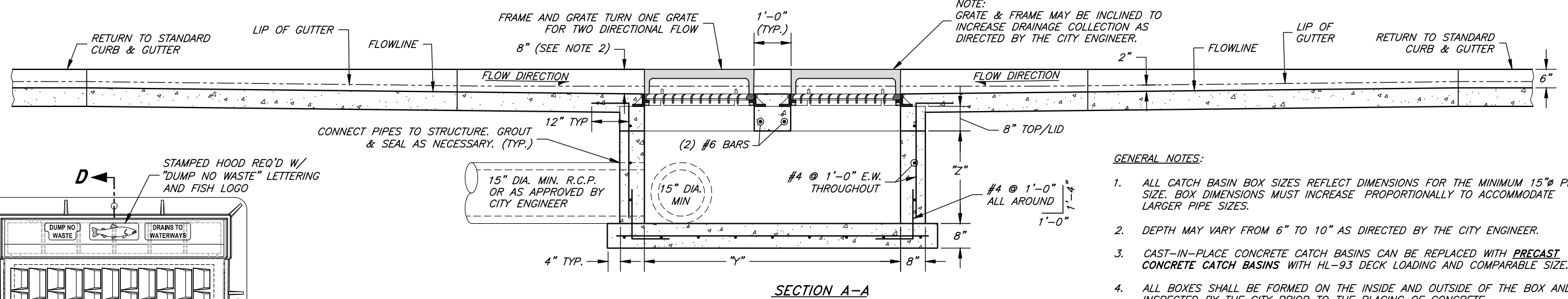
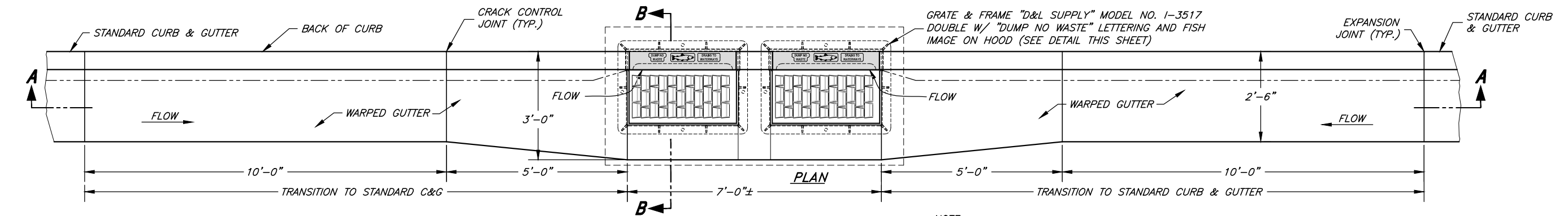


PUBLIC WORKS

BRIGHAM CITY CORPORATION
PUBLIC WORKS - STORM DRAIN SYSTEM STANDARDS

SINGLE CATCH BASIN DETAILS

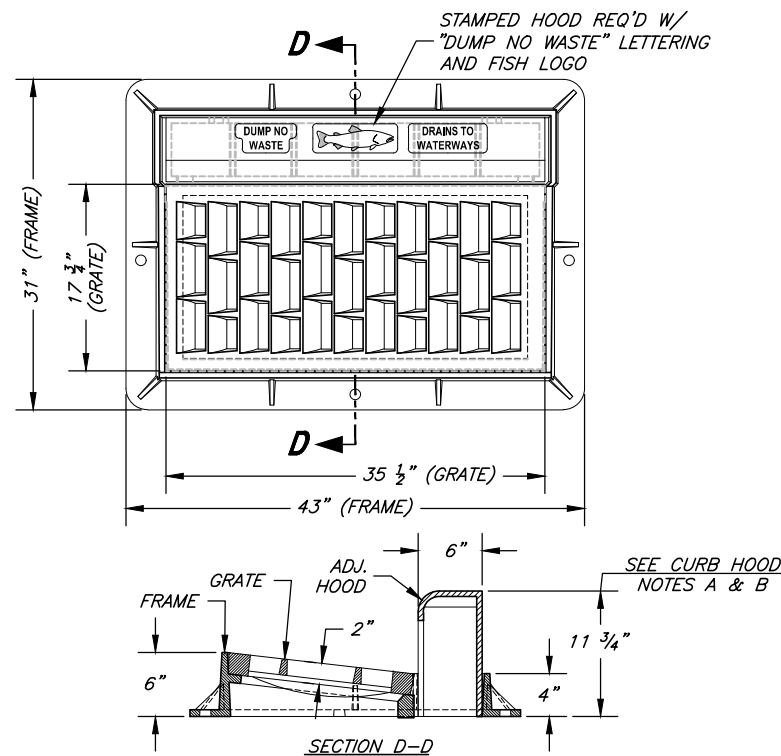
SHEET:
SD1
OF 45 SHEETS
0



DOUBLE HOODED CATCH BASIN

GENERAL NOTES:

- ALL CATCH BASIN BOX SIZES REFLECT DIMENSIONS FOR THE MINIMUM 15"Ø PIPE SIZE. BOX DIMENSIONS MUST INCREASE PROPORTIONALLY TO ACCOMMODATE LARGER PIPE SIZES.
- DEPTH MAY VARY FROM 6" TO 10" AS DIRECTED BY THE CITY ENGINEER.
- CAST-IN-PLACE CONCRETE CATCH BASINS CAN BE REPLACED WITH **PRECAST CONCRETE CATCH BASINS** WITH HL-93 DECK LOADING AND COMPARABLE SIZE.
- ALL BOXES SHALL BE FORMED ON THE INSIDE AND OUTSIDE OF THE BOX AND INSPECTED BY THE CITY PRIOR TO THE PLACING OF CONCRETE.
- DOUBLE CATCH BASINS WILL BE REQUIRED IN LOCATIONS SPECIFIED BY THE CITY ENGINEER (TYPICALLY IN LOW SPOTS OR WHERE ADDITIONAL INLET CAPACITY IS NEEDED).
- STORM DRAIN LINES SHALL BE 15 INCH MINIMUM DIAMETER REINFORCED CONCRETE PIPE (RCP), OF APPROPRIATE CLASS.
- ALTERNATE STRUCTURE (E.G. COMBO BOXES) MAY BE USED WITH APPROVAL OF THE CITY ENGINEER. STRUCTURES SHALL FOLLOW APWA STANDARD PLANS AND BE A COMMON SIZE.

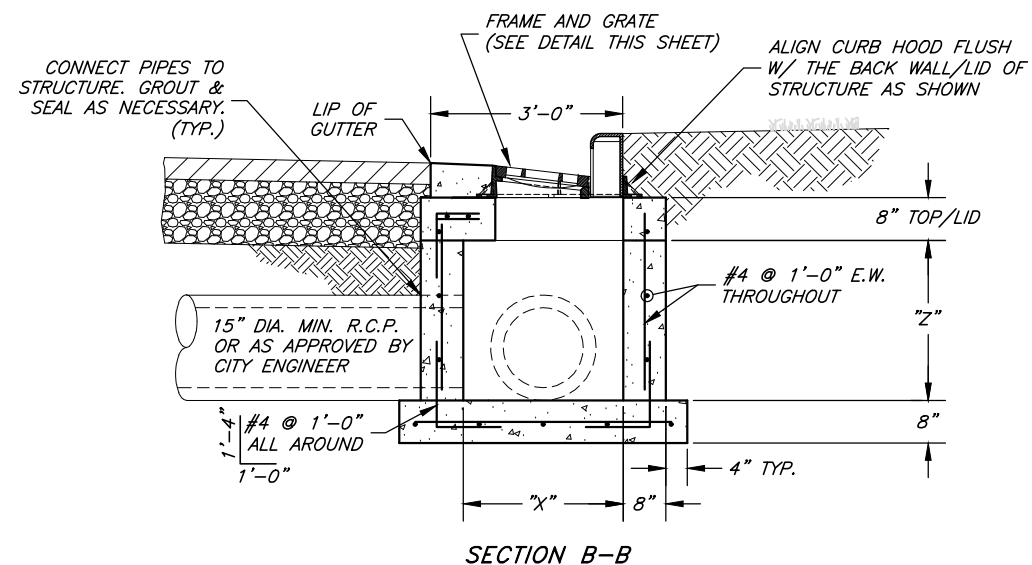


CURB HOOD INLET FRAME & TYPE "L" GRATE

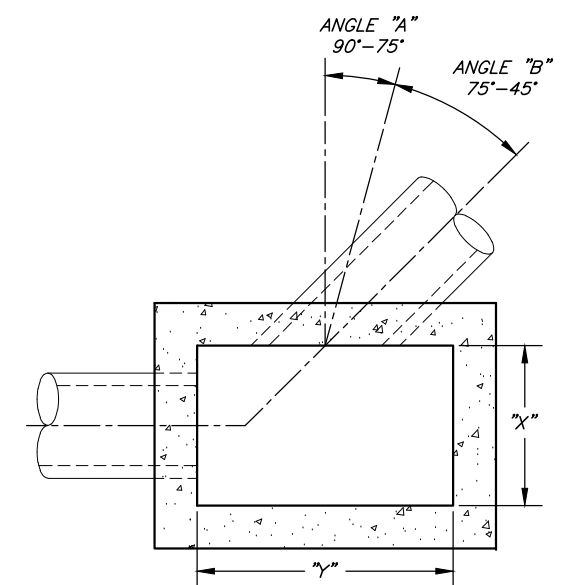
"D&L SUPPLY" I-3517	
PRODUCT NUMBER:	
GRATE:	I-3517-02
ADJ HOOD:	I-3516-13
FRAME:	I-3516-R8

CURB HOOD NOTES:

- 13 1/8" APPROXIMATE MAXIMUM HEIGHT FOR THE ADJUSTABLE HOOD.
- 9 5/8" APPROXIMATE MINIMUM HEIGHT FOR THE ADJUSTABLE HOOD.



CATCH BASIN DIMENSION TABLE				
PIPE SIZE (IN.)	"X"	"Y" MIN. (ANGLE A)	"Y" MIN. (ANGLE B)	"Z" MIN.
15	2'-6"	6'-11"	6'-11"	2'-0"
18	2'-6"	6'-11"	6'-11"	2'-6"
21	4'-0"	6'-11"	6'-11"	3'-0"
24	4'-0"	6'-11"	6'-11"	3'-0"
30	4'-0"	6'-11"	6'-11"	3'-6"
36	4'-0"	6'-11"	6'-11"	4'-0"
42	6'-0"	6'-11"	8'-0"	5'-0"
48	6'-0"	6'-11"	8'-0"	5'-6"



Brett M. Jones
CITY ENGINEER
12/15/2022
DATE

REV.	DATE

SCALE:
N.T.S.

DESIGNED _____
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PUBLIC WORKS

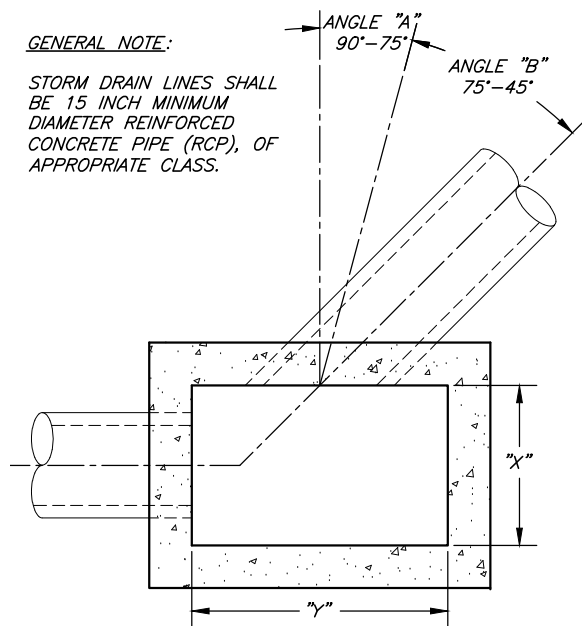
BRIGHAM CITY CORPORATION
PUBLIC WORKS - STORM DRAIN SYSTEM STANDARDS

DOUBLE CATCH BASIN DETAILS

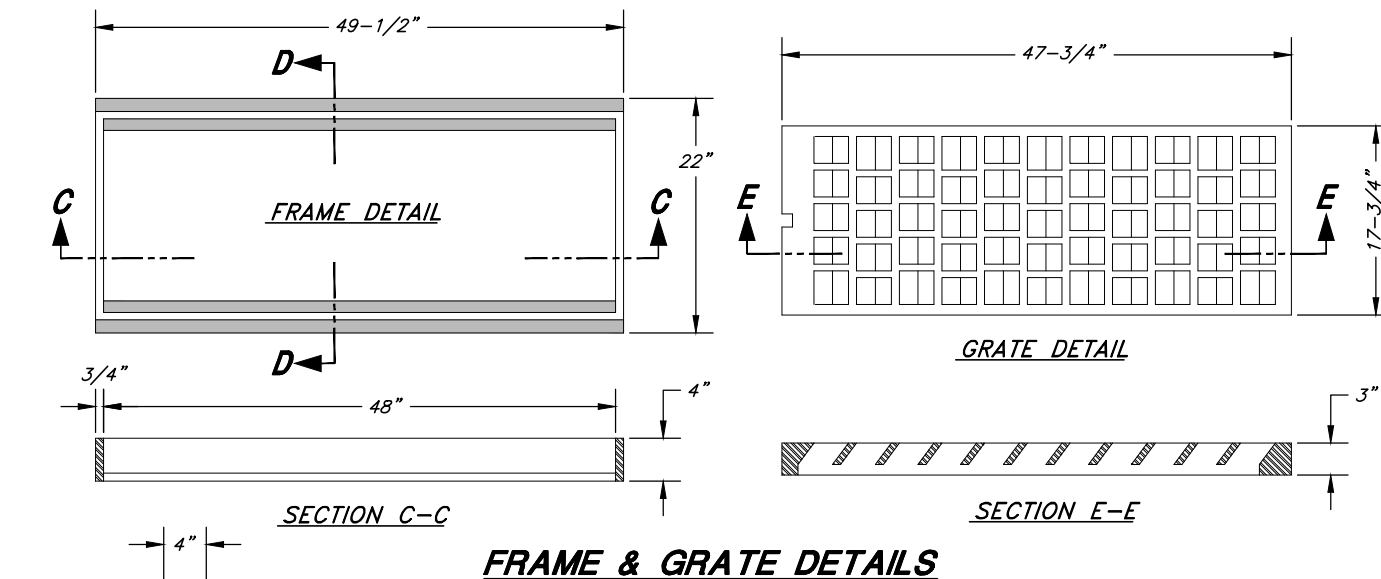
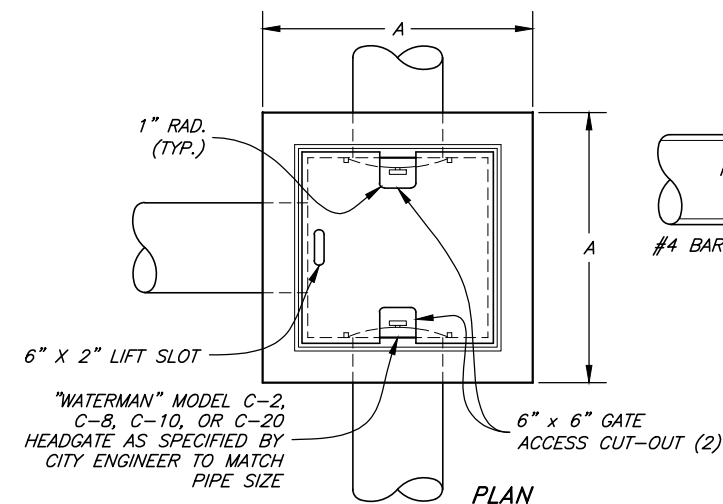
SHEET:
SD2
OF 45 SHEETS
0

GENERAL NOTE:

STORM DRAIN LINES SHALL BE 15 INCH MINIMUM DIAMETER REINFORCED CONCRETE PIPE (RCP), OF APPROPRIATE CLASS.



PIPE SIZE (IN.)	INLET BOX			"Z" MIN.
	"X"	"Y" (ANGLE A)	"Y" (ANGLE B)	
15	2'-6"	4'-0"	4'-0"	2'-0"
18	2'-6"	4'-0"	4'-0"	2'-6"
21	4'-0"	4'-0"	4'-0"	3'-0"
24	4'-0"	4'-0"	5'-0"	3'-0"
30	4'-0"	4'-0"	6'-0"	3'-6"
36	4'-0"	4'-0"	6'-0"	4'-0"
42	6'-0"	6'-0"	7'-0"	5'-0"
48	6'-0"	6'-0"	8'-0"	5'-6"



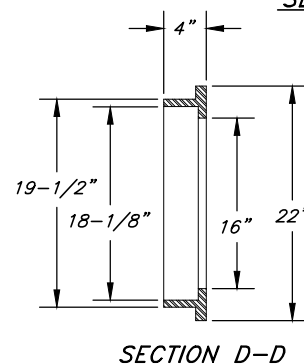
FRAME & GRATE DETAILS

FRAME AND GRATE NOTES:

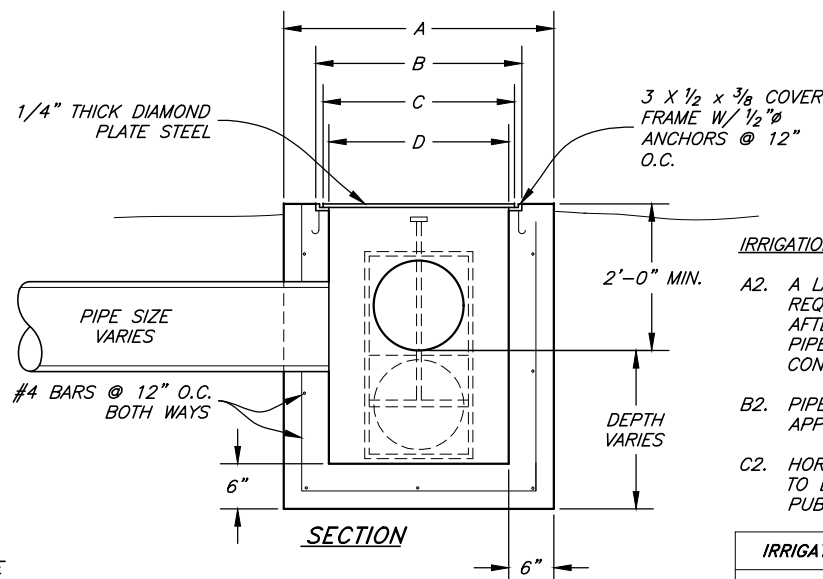
- A1. GRATE AND FRAME SHALL BE AS MANUFACTURED BY "D&L SUPPLY" I-1803
- B1. BICYCLE SAFE GRATE REQUIRED.
- C1. "OR EQUAL" GRATES AND FRAMES WILL BE CONSIDERED AS APPROVED BY THE CITY ENGINEER.

INLET BOX NOTES:

- ALL BOX SIZES REFLECT DIMENSIONS FOR THE MINIMUM 15"Ø PIPE SIZE. BOX DIMENSIONS MUST INCREASE PROPORTIONALLY TO ACCOMMODATE LARGER PIPE SIZES. (SEE TABLE THIS SHEET)
- CAST-IN-PLACE CONCRETE STRUCTURES CAN BE REPLACED WITH PRECAST CONCRETE STRUCTURES WITH HL-93 DECK LOADING AND COMPARABLE SIZE.
- ALL BOXES SHALL BE FORMED ON THE INSIDE AND OUTSIDE OF THE BOX AND INSPECTED BY THE CITY PRIOR TO THE PLACING OF CONCRETE.



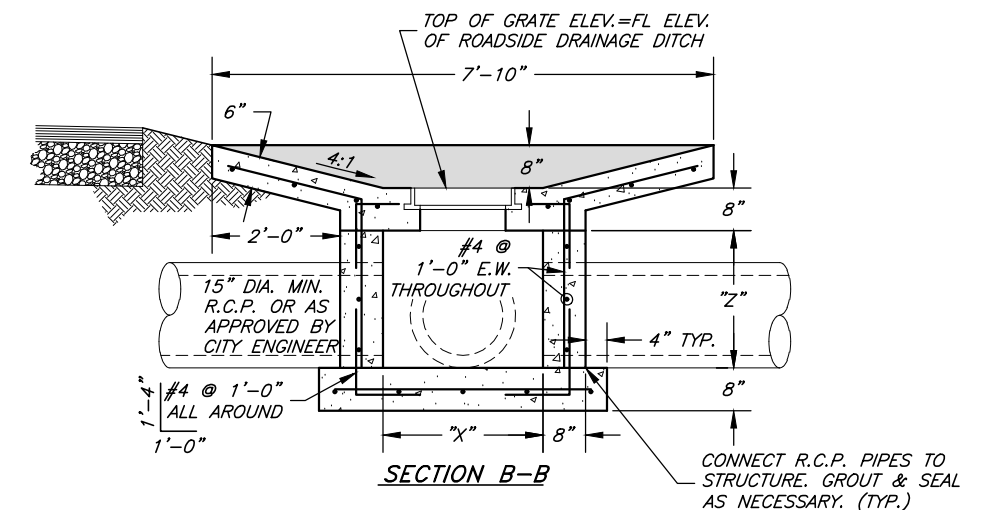
SECTION D-D



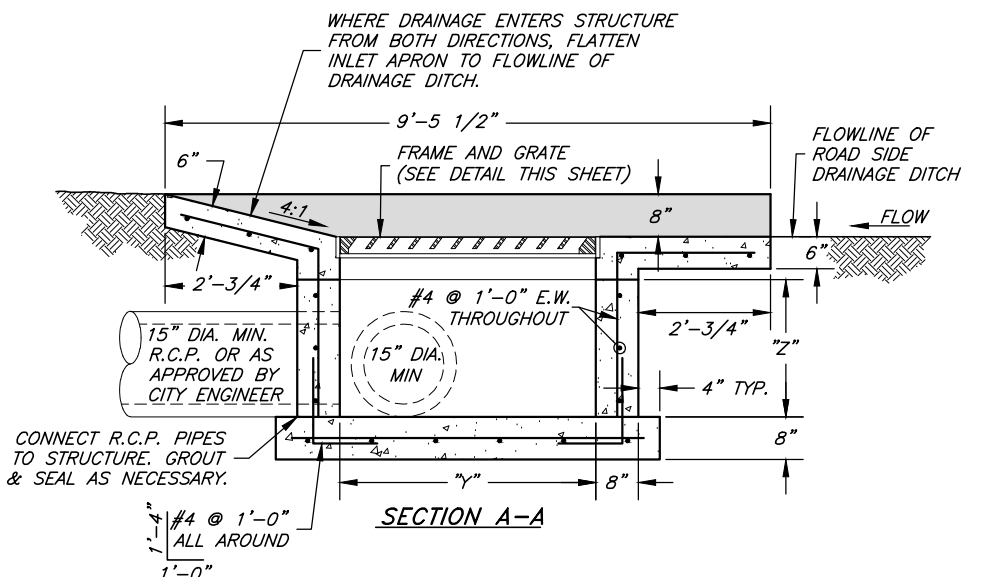
IRRIGATION BOX NOTES:

- A2. A LARGER IRRIGATION BOX MAY BE REQUIRED BY THE DESIGN ENGINEER AFTER EVALUATION OF THE SIZE OF THE PIPES AND GATES TO BE ATTACHED OR CONNECTED TO THE STRUCTURE.
- B2. PIPE MATERIALS & SIZE SHALL BE APPROVED BY IRRIGATION COMPANY.
- C2. HORIZONTAL & VERTICAL ALIGNMENT TO BE APPROVED BY THE BRIGHAM CITY PUBLIC WORKS DEPARTMENT.

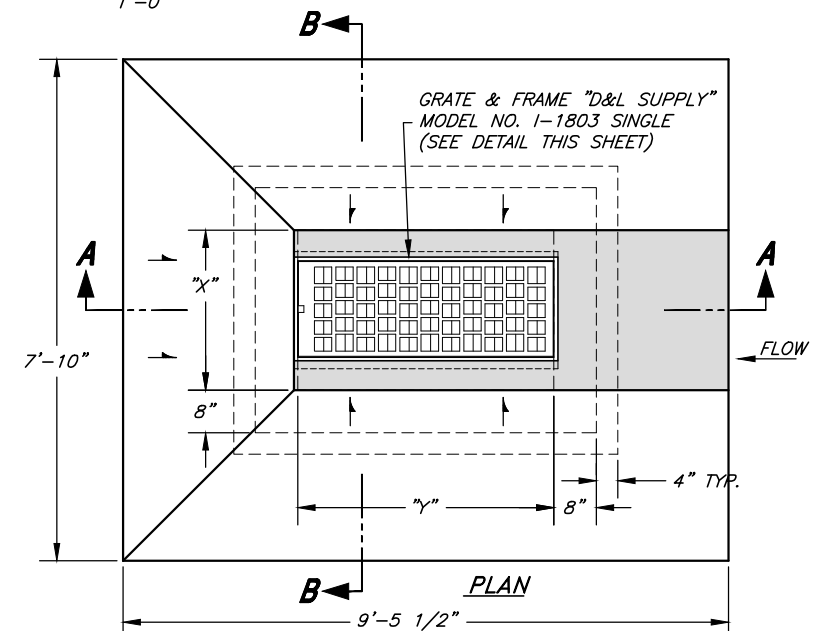
IRRIGATION BOX DIMENSION TABLE		
DIMENSION	TYPE I	TYPE II
A	3'-0"	4'-0"
B	2'-1 1/2"	3'-1 1/2"
C	2'-1"	3'-1"
D	2'-0"	3'-0"



SECTION B-B



SECTION A-A



DRAINAGE DITCH / PARKING LOT INLET BOX



DESIGNED	_____
DRAWN	_____
CHECKED	_____

SCALE:
N.T.S.



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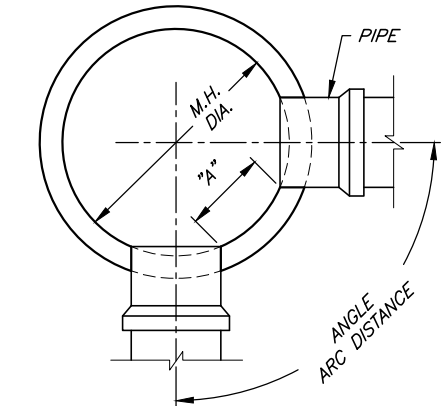


PUBLIC WORKS

BRIGHAM CITY CORPORATION
PUBLIC WORKS - STORM DRAIN SYSTEM STANDARDS
DRAINAGE INLET BOX, GENERAL GRATE & FRAME, AND IRRIGATION BOX DETAILS

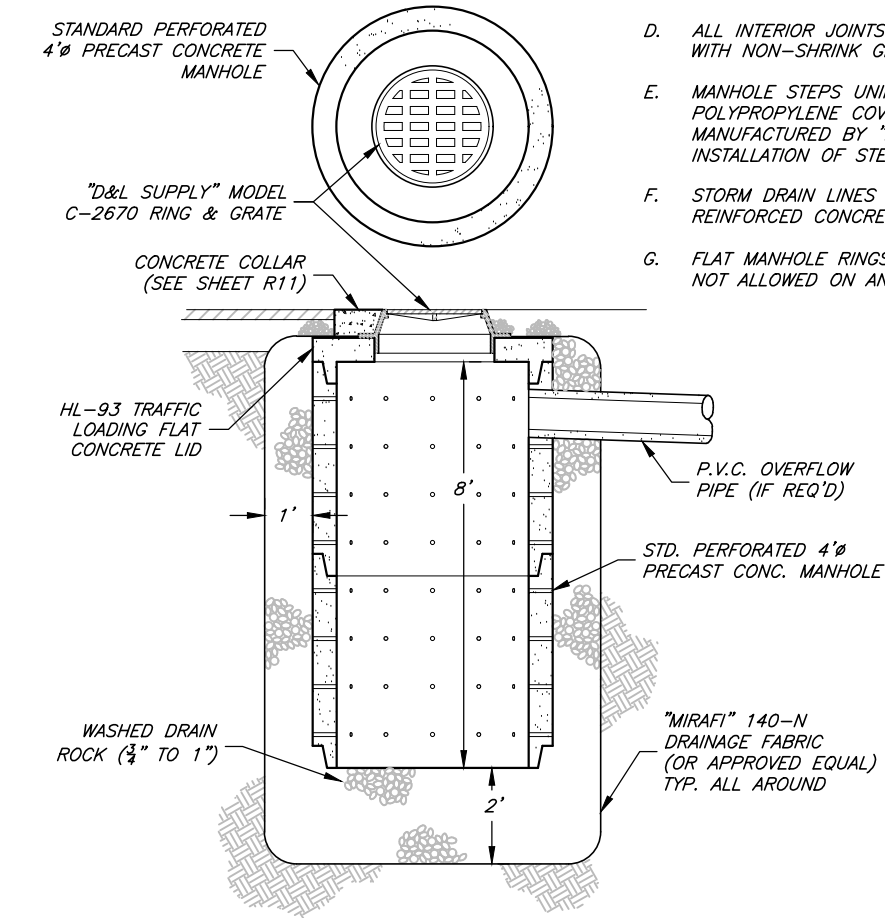
SHEET:
SD3
OF 45 SHEETS
0

PIPE SIZES												
M.H. SIZE	IN-LINE M.H. 180°	JUNCTION MANHOLE (ANGLE / ARC DISTANCE)										
		90°	85°	80°	75°	70°	65°	60°	55°	50°	45°	
4' M.H.	15"-24"	15"-18"	15"-18"	15"	15"	15"	15"	15"	15"	15"	15"	15"
5' M.H.	27"-30"	21"-24"	21"-24"	18"-21"	18"-21"	15"-18"	15"-18"	15"	15"	15"	15"	15"
6' M.H.	36"-48"	27"-30"	27"-30"	24"-27"	24"	21"-24"	21"	18"	15"-18"	15"	15"	15"
7' M.H.	54"	36"	36"	30"	27"-30"	27"	24"	21"-24"	21"	18"	15"	15"
8' M.H.	60"	42"	42"	36"	36"	30"	27"-30"	27"	24"	21"	18"	15"

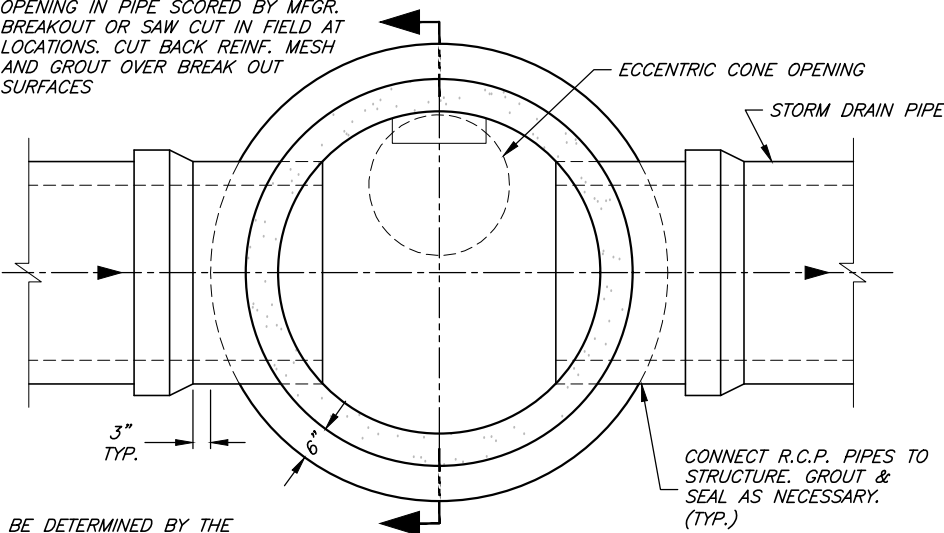


- SIZING NOTES:**
- SUGGESTED "A" DISTANCE IS 6" OR GREATER FOR 48", 60" AND 72" DIAMETER MANHOLES
 - SUGGESTED "A" DISTANCE IS 8" OR GREATER FOR 84" AND 96" DIAMETER MANHOLES

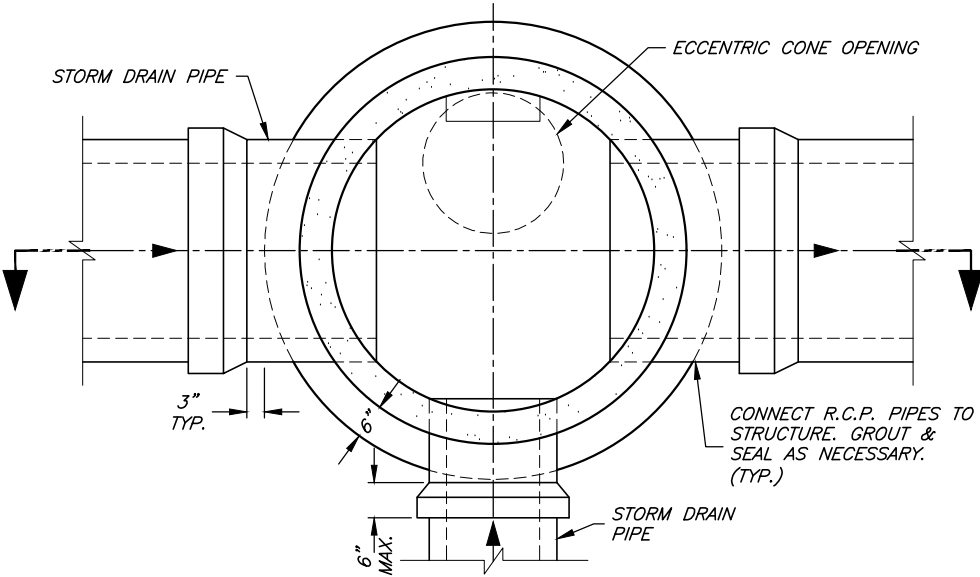
- GENERAL NOTES:**
- STORM DRAIN MANHOLE DIAMETER TO BE DETERMINED BY THE DESIGN ENGINEER AFTER EVALUATION OF THE NUMBER, SIZE, AND PIPE ENTRY ANGLE OF THE PIPES THAT CONNECT TO THE MANHOLE.
 - NO MORE THAN 12" OF GRADE RINGS TO BE ALLOWED ON ANY MANHOLE
 - PLYWOOD COVERS SHALL BE USED AT MANHOLE FLOOR TO COVER FLOWLINE DURING CONSTRUCTION AND MAINTENANCE ACTIVITIES.
 - ALL INTERIOR JOINTS SHALL BE SMOOTH AND EVENLY GROUTED WITH NON-SHRINK GROUT MIX.
 - MANHOLE STEPS UNIFORMLY SPACED (1'-0" MAX.) POLYPROPYLENE COVERED STEEL STEPS, MODEL PSI-PF AS MANUFACTURED BY "M.A. INDUSTRIES" OR APPROVED EQUAL - INSTALLATION OF STEPS SHALL BE WATERPROOF.
 - STORM DRAIN LINES SHALL BE 15 INCH MINIMUM DIAMETER REINFORCED CONCRETE PIPE (RCP), OF APPROPRIATE CLASS.
 - FLAT MANHOLE RINGS & COVERS (SLAB CONSTRUCTION) ARE NOT ALLOWED ON ANY MANHOLE CONE SECTION.



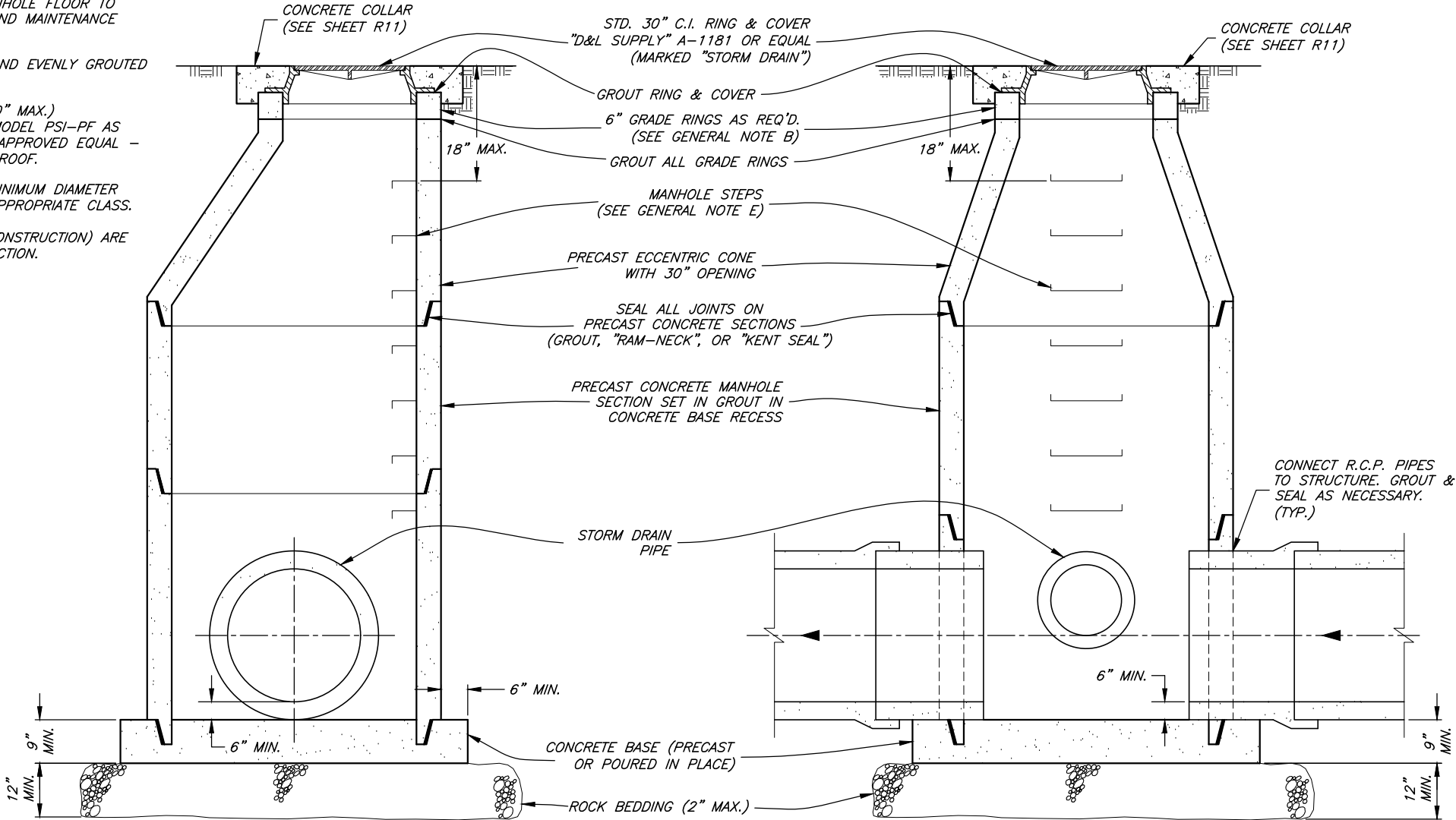
TYPICAL SUMP DETAIL
USE ONLY UPON APPROVAL FROM THE CITY ENGINEER



TYPICAL LINE MANHOLE



TYPICAL JUNCTION MANHOLE



DESIGNED	_____
DRAWN	_____
CHECKED	_____

SCALE:	_____
DESIGNED	_____
DRAWN	_____
CHECKED	_____



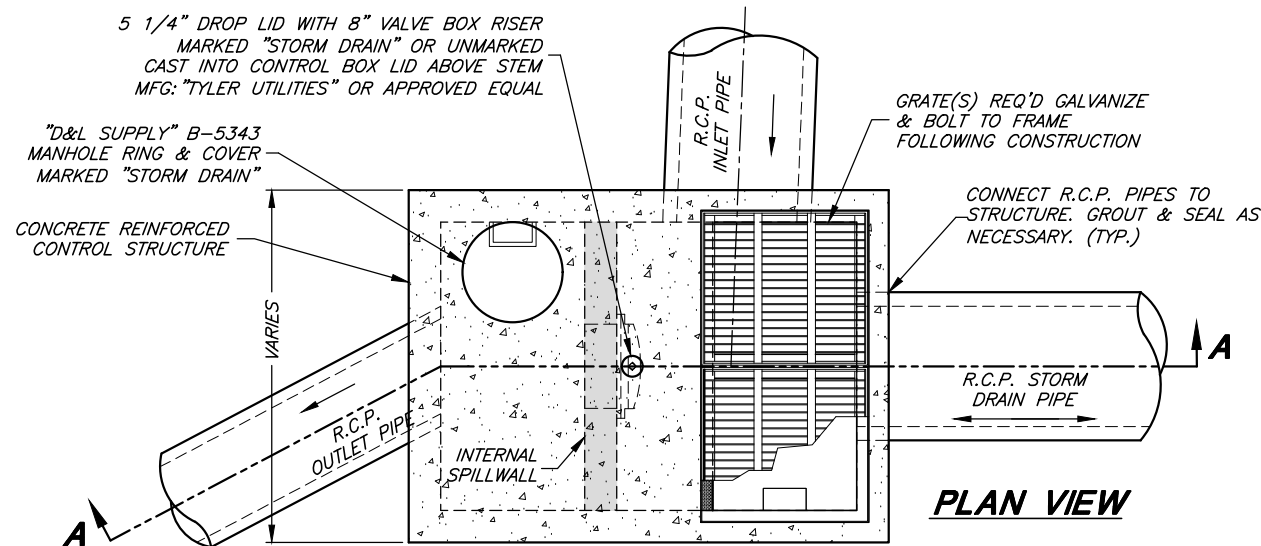
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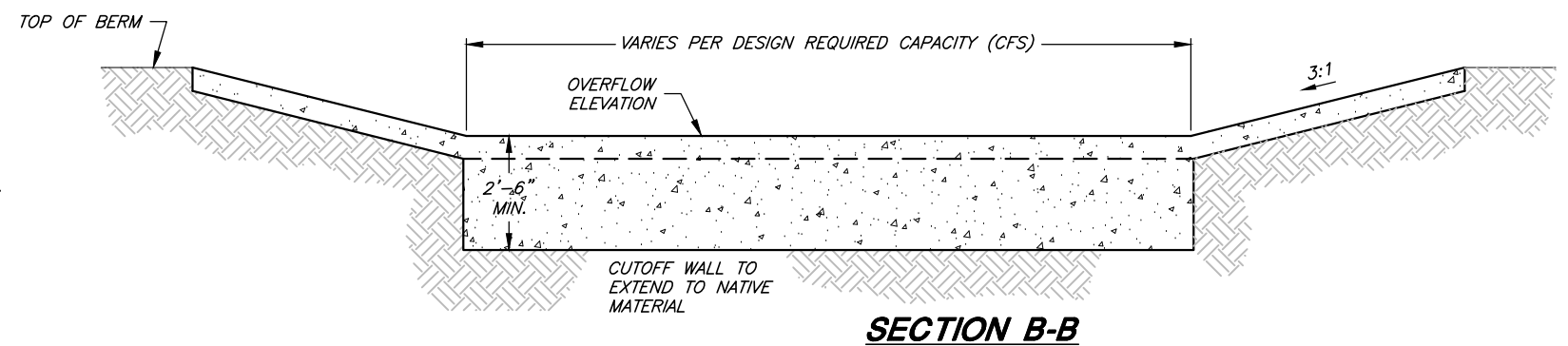
PUBLIC WORKS

BRIGHAM CITY CORPORATION	
PUBLIC WORKS - STORM DRAIN SYSTEM STANDARDS	
STORM DRAIN MANHOLE AND SUMP DETAILS	

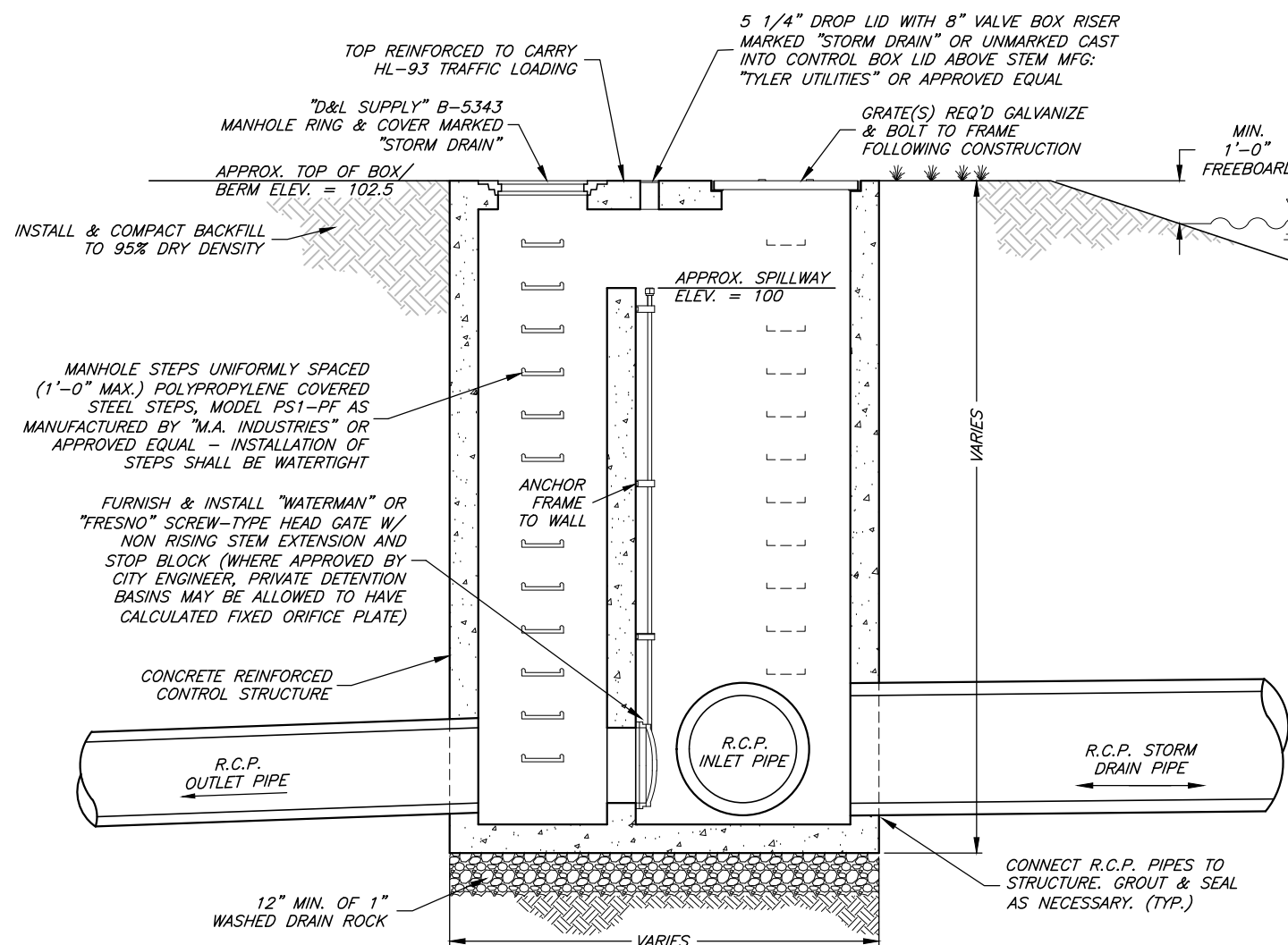
SHEET:	SD4
OF 45 SHEETS	0



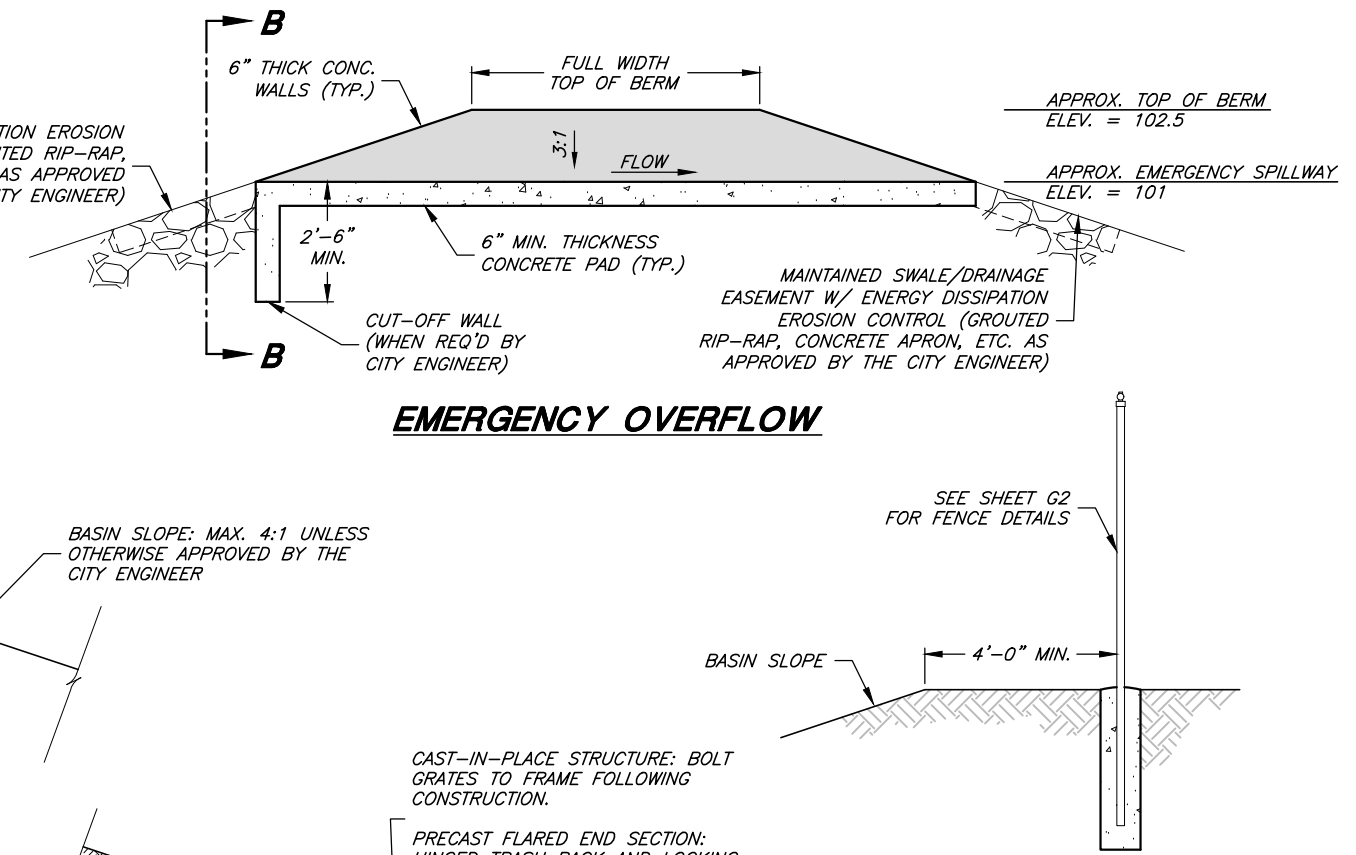
DETENTION INLET/OUTLET CONTROL STRUCTURE
(PRECAST OR CAST-IN-PLACE)



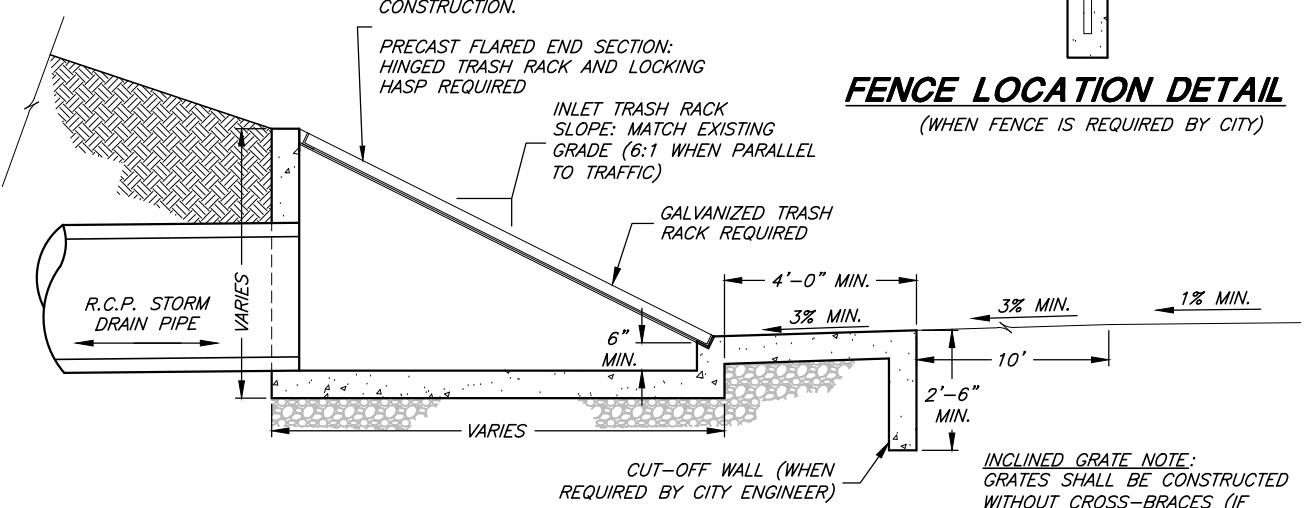
EMERGENCY OVERFLOW



SECTION A-A



FENCE LOCATION DETAIL
(WHEN FENCE IS REQUIRED BY CITY)



INCLINED GRATE STORM DRAIN INLET

**INCLINED GRATES ARE REQ'D ON ALL PIPES/INLETS WHERE OPEN CHANNELS, DITCHES, OR PONDS DISCHARGE DIRECTLY INTO THE STORM DRAIN SYSTEM.

GENERAL AND STRUCTURAL NOTES:
SEE SHEET SD6



Brett M. Jones
CITY ENGINEER
12/15/2022
DATE

REV.	DATE

SCALE:
N.T.S.

DESIGNED _____
DRAWN _____
CHECKED _____



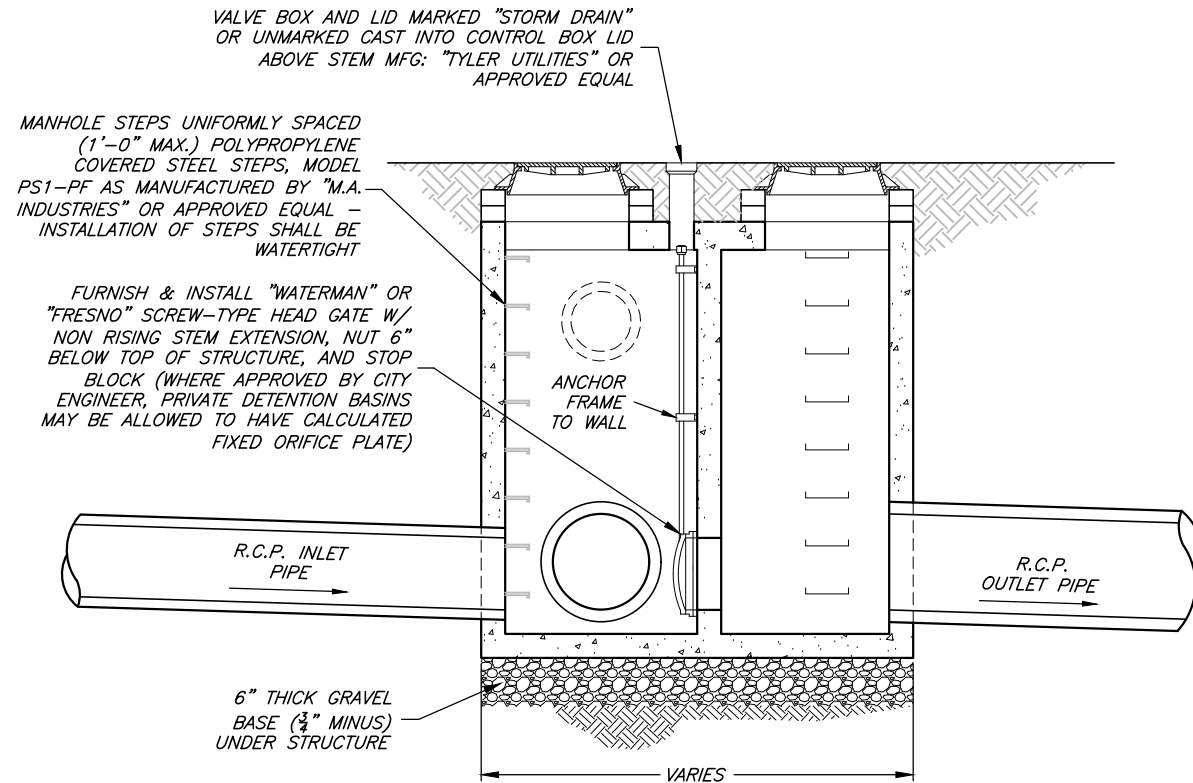
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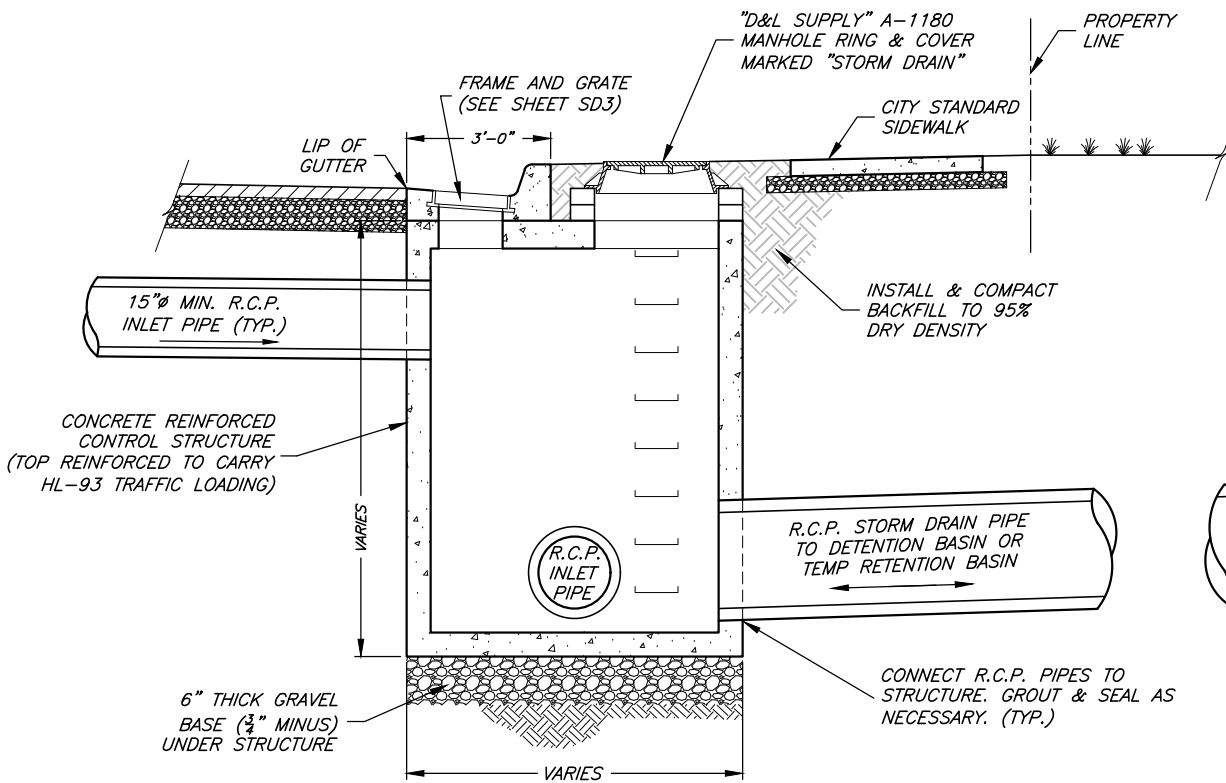
PUBLIC WORKS

BRIGHAM CITY CORPORATION
PUBLIC WORKS - STORM DRAIN SYSTEM STANDARDS
LARGE DETENTION BASIN DETAILS

SHEET:
SD5
OF 45 SHEETS
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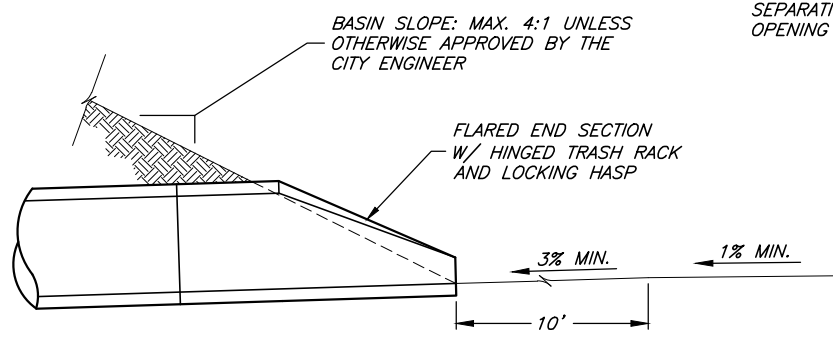


SECTION B-B

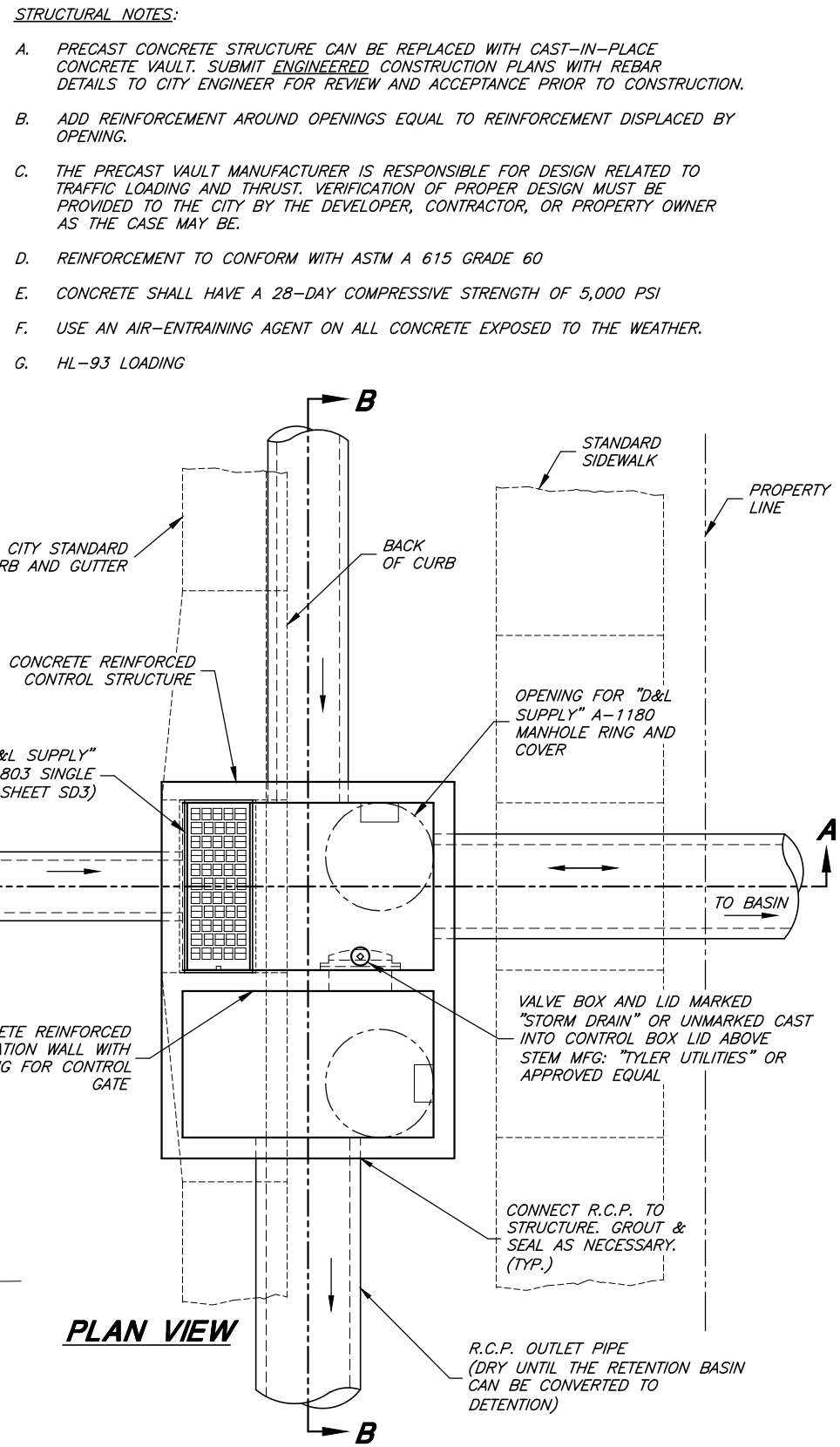


SECTION A-A

- GENERAL NOTES:**
- ALL BASINS REGARDLESS OF LOCAL OR REGIONAL SHALL BE DESIGNED TO ACCOMMODATE A 100 YEAR STORM EVENT.
 - A DAM SAFETY (UTAH DIVISION OF WATER RIGHTS) HAZARD PERMIT MAY BE REQUIRED.
 - STRUCTURE DESIGN AND FLOW CALCULATIONS MUST BE APPROVED BY CITY ENGINEER PRIOR TO CONSTRUCTION.
 - STORM DRAIN LINES SHALL BE 15 INCH MINIMUM DIAMETER REINFORCED CONCRETE PIPE (RCP), OF APPROPRIATE CLASS.
 - THE SURFACE AREA OF THE BASIN SHALL BE SODDED AND SHALL BE PROVIDED WITH AN AUTOMATED SPRINKLER SYSTEM APPROVED BY THE CITY ENGINEER.
 - GRATES SHALL BE REMOVABLE FOR MAINTENANCE PURPOSES
 - GRATES SHALL BE HOT DIPPED GALVANIZED WITH BARS AT MAXIMUM 3 INCH SPACING.
 - LOW FLOWS MUST BE PIPED CONTINUOUSLY TO THE CONTROL STRUCTURE. NO OPEN FLOW IS PERMITTED THROUGH THE BASIN.
 - INCLINED GRATES ARE REQUIRED ON ALL PIPES/INLETS WHERE OPEN CHANNELS, DITCHES, OR PONDS DISCHARGE DIRECTLY INTO THE STORM DRAIN SYSTEM.
 - AN INTERNAL SPILLWAY MAY BE CONSTRUCTED INSIDE THE STRUCTURE DEPENDING ON SITE CONDITIONS AND ELEVATIONS.
 - BASIN STRUCTURES ARE DETERMINED BY THE SIZE OF THE DETENTION BASIN OR AS REQUIRED BY THE CITY ENGINEER. (SEE SHEET SD5 OR SD6)
 - SMALL DETENTION BASIN: LESS THAN OR EQUAL TO 1 ACRE FOOT
 - LARGE DETENTION BASIN: GREATER THAN 1 ACRE FOOT



EMERGENCY OVERFLOW AND FENCE LOCATION DETAIL : SEE SHEET SD5



INLET/OUTLET CONTROL STRUCTURE

(PRECAST OR CAST-IN-PLACE)



Brett M. Jones
CITY ENGINEER
12/15/2022
DATE

REV.	DATE

SCALE:
N.T.S.

DESIGNED _____
DRAWN _____
CHECKED _____



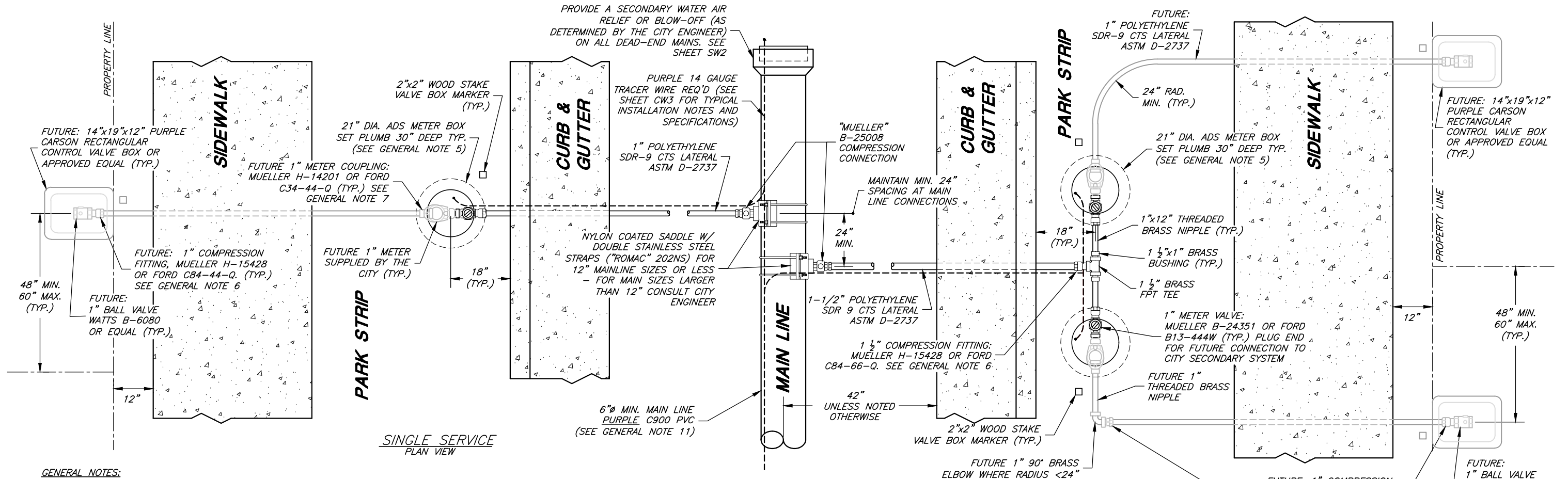
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PUBLIC WORKS

BRIGHAM CITY CORPORATION
PUBLIC WORKS - STORM DRAIN SYSTEM STANDARDS
SMALL DETENTION BASIN DETAILS

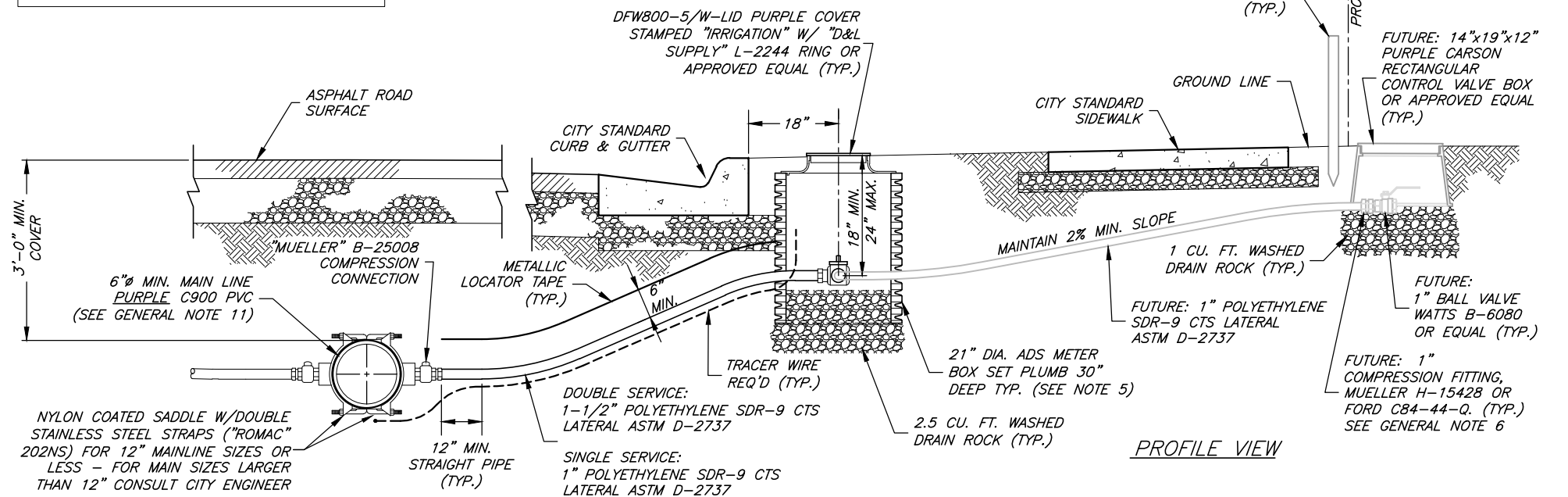
SHEET:
SD6
OF 45 SHEETS
0



GENERAL NOTES:

1. 1 1/2" & 1" PIPE SHALL BE POLYETHYLENE, SDR-9 CTS, ASTM D-2737 W/ PURPLE 14 GAUGE TRACER WIRE.
 2. FITTINGS SHALL BE STAINLESS UNLESS SPECIFIED OTHERWISE.
 3. VALVE & METER ENCLOSURE LIDS SHALL BE STAMPED "IRRIGATION"
 4. VALVE BOX MARKERS MUST BE SET ADJACENT TO EVERY VALVE & METER.
 5. INSURE VALVE CONTROL NUT CAN BE SERVICED BY WRENCH WHEN POSITIONING UNDER ENCLOSURE LID.
 6. ALL COMPRESSION-TYPE CONNECTIONS REQUIRE STAINLESS STEEL INSERT STIFFENERS.
 7. THE TUBING SHOULD BE INSERTED INTO THE FITTING SO THAT THE END OF THE TUBING IS WELL PAST THE RUBBER GASKET AND AT LEAST 1/8" FROM THE BOTTOM OF THE SOCKET.
 8. ALL WORK SHALL BE INSPECTED AND APPROVED BY THE CITY INSPECTOR PRIOR TO BACKFILL. ALL INSPECTIONS SHALL BE COORDINATED 24 HOURS IN ADVANCE.
 9. CONCRETE COLLARS SHALL BE SQUARE
 10. SERVICE LINES ARE TO BE TAPPED LEVEL
 11. ALL MAIN LINES ARE TO BE MIN. 6"Ø PURPLE C900 W/ PURPLE LOCATOR TAPE & PURPLE 14 GAUGE TRACER WIRE & INSTALLED TO LIMITS OF SUBDIVISION (OR STREET) & PLUGGED UNTIL FUTURE CONNECTION TO CITY IRRIGATION SYSTEM.
- C900 PIPE:** PURPLE
12" OR SMALLER Ø PIPE SHALL BE C900 DR-14
14" OR LARGER Ø PIPE SHALL BE C900 DR-18
12. PLUG ALL OPEN ENDS OF PIPE UNTIL FUTURE CONNECTION TO CITY SECONDARY WATER SYSTEM.
 13. ALL FITTINGS SHALL BE CLASS 150 MJ UNLESS OTHERWISE NOTED.
 14. AN RP ASSEMBLY SHALL BE INSTALLED WHEN A SECONDARY SERVICE IS CONNECTED TO THE CULINARY WATER SYSTEM. (SEE SHEET CW8)

NOTE:
ALL SPECIFIED BRANDS OF MATERIALS SHOWN ON THESE DRAWINGS ARE "CITY STANDARDS." OTHER EQUIVALENT BRANDS MAY BE USED WITH THE PRIOR APPROVAL OF THE CITY ENGINEER AND THE CITY WATER DIVISION.



TYPICAL SECONDARY WATER IRRIGATION TURNOUT



Brett M. Jones
CITY ENGINEER
12/15/2022
DATE

REV.	DATE

SCALE:
N.T.S.

DESIGNED _____
DRAWN _____
CHECKED _____



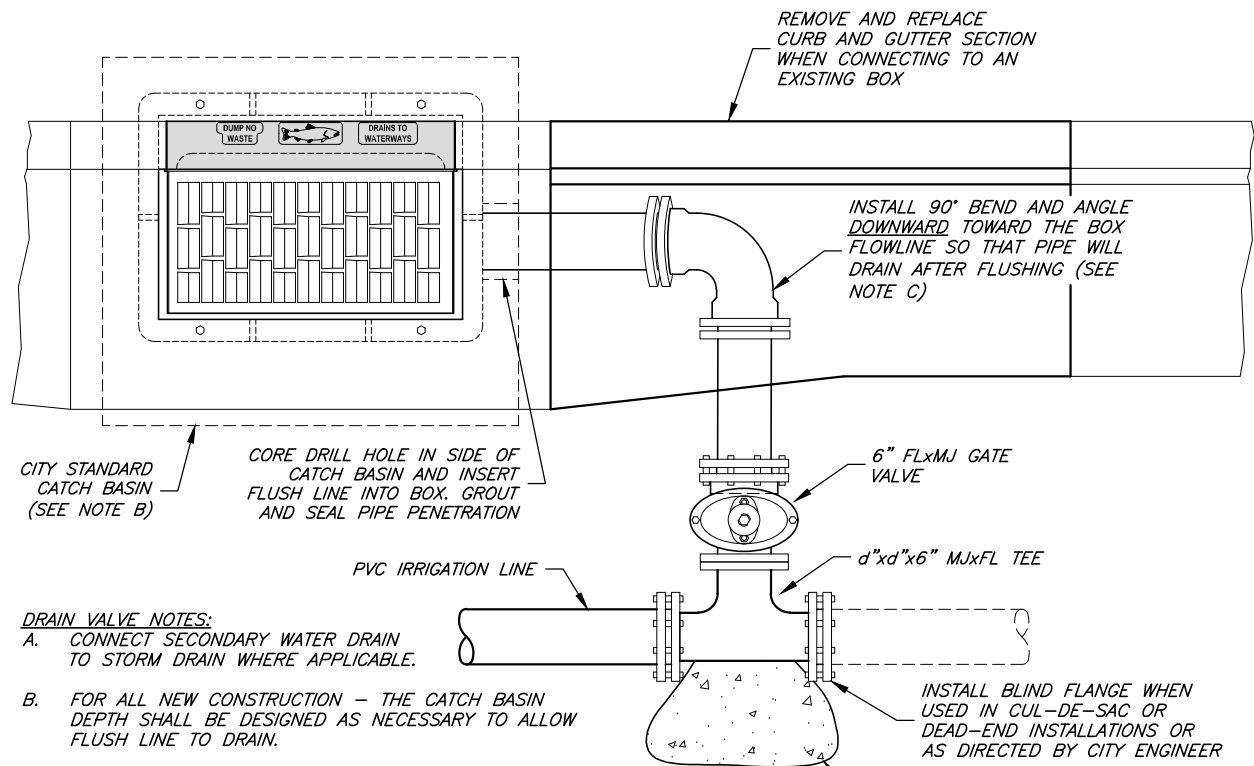
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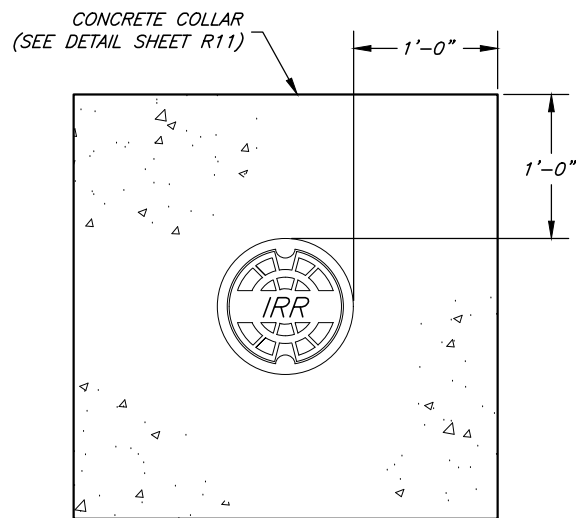
PUBLIC WORKS

BRIGHAM CITY CORPORATION
PUBLIC WORKS - SECONDARY WATER (IRRIGATION) SYSTEM STANDARDS
TYPICAL SECONDARY WATER SERVICE LATERALS

SHEET:
SW1
OF 45 SHEETS
0



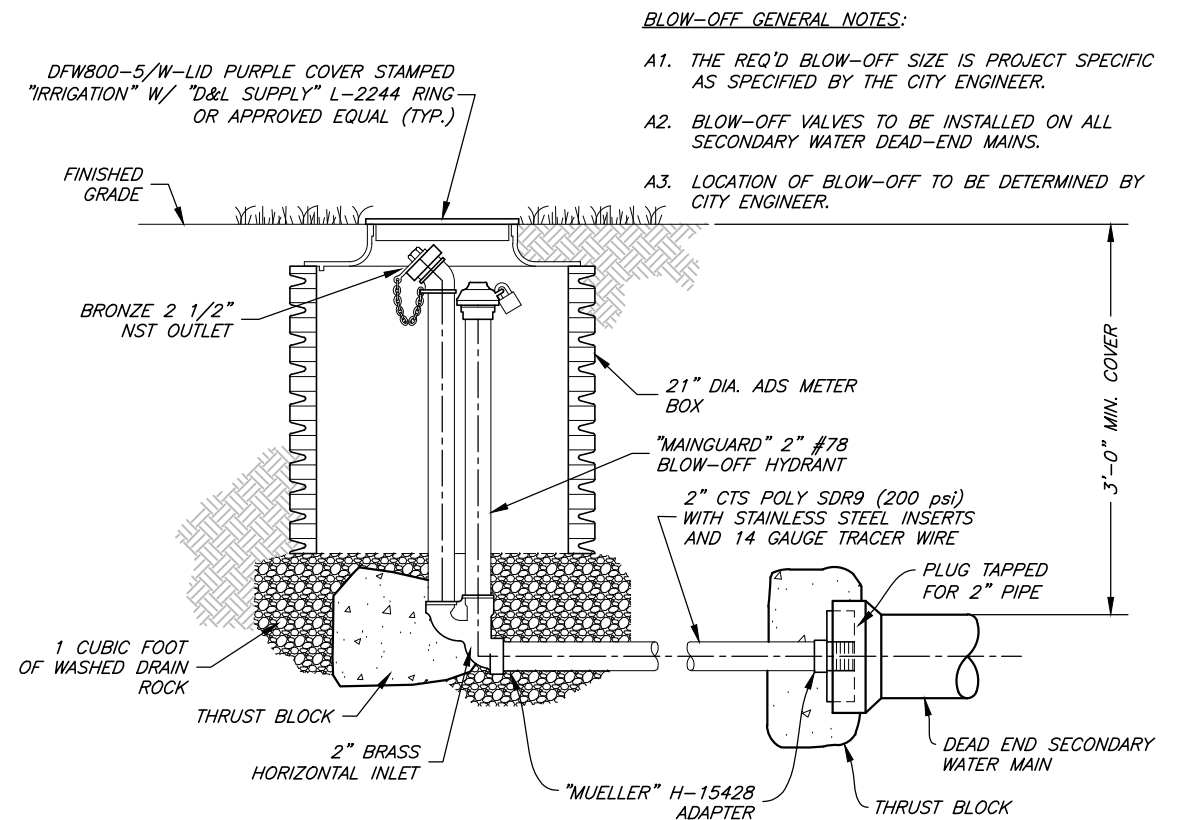
TYPICAL DRAIN VALVE DETAIL



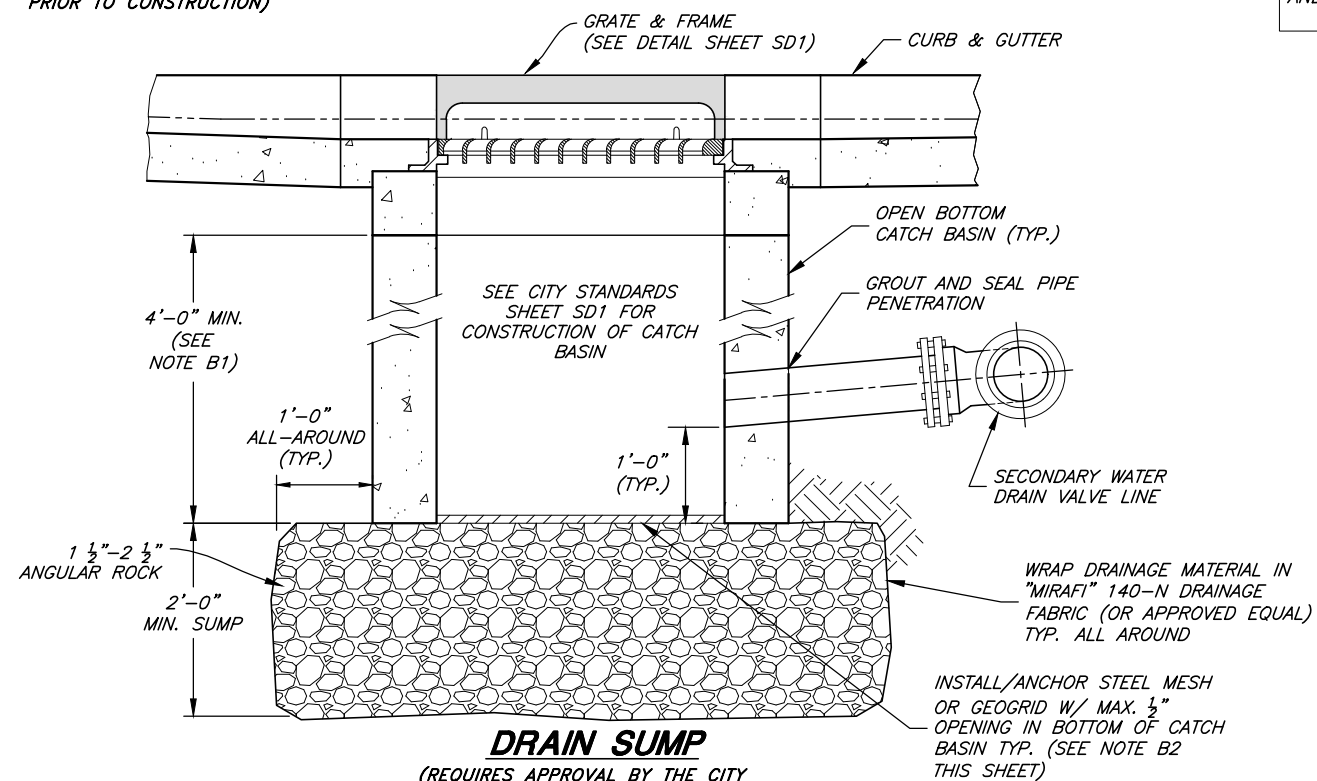
NOTE:
1. LID FOR SECONDARY WATER TO BE STAMPED "IRR" OR "IRRIGATION"

TYP. CONCRETE COLLAR

NOTE:
ALL SPECIFIED BRANDS OF MATERIALS SHOWN ON THESE DRAWINGS ARE "CITY STANDARDS." OTHER EQUIVALENT BRANDS MAY BE USED WITH THE PRIOR APPROVAL OF THE CITY ENGINEER AND THE CITY WATER DIVISION.



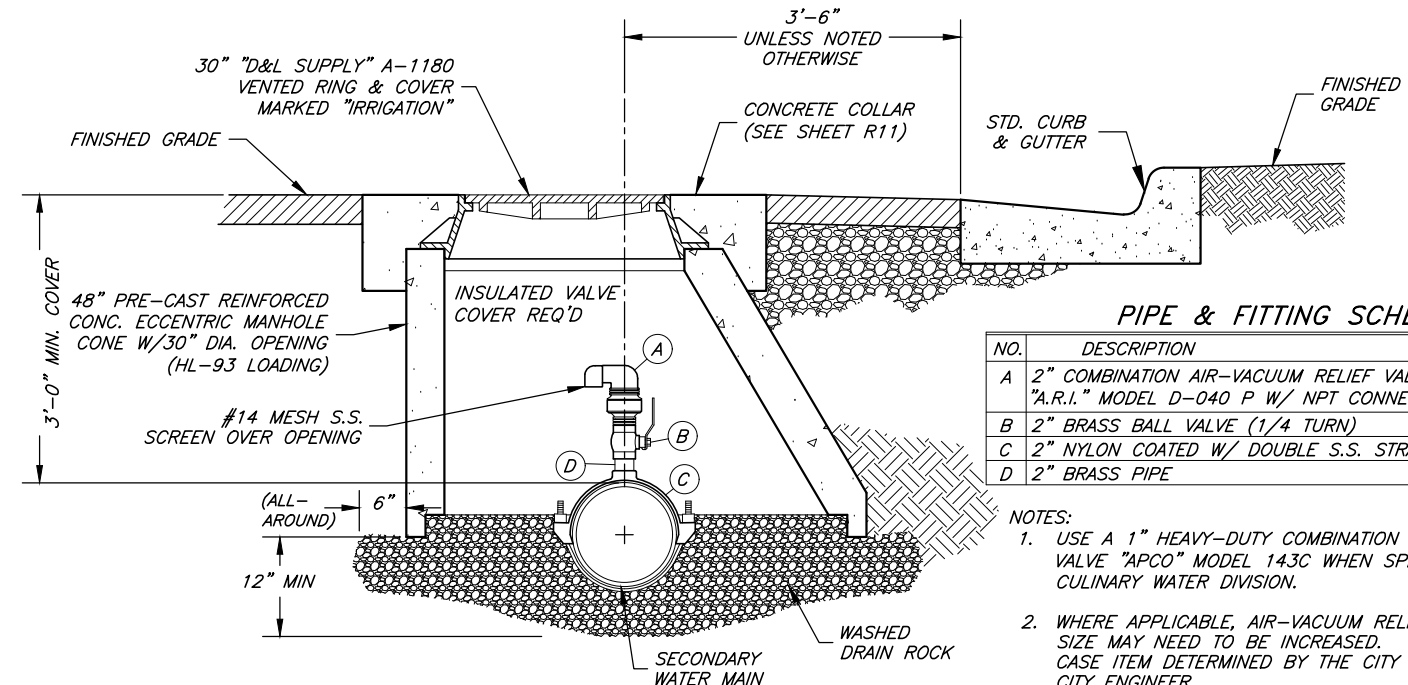
TYPICAL 2" BLOW-OFF (FLUSH) VALVE CONNECTION



DRAIN SUMP
(REQUIRES APPROVAL BY THE CITY ENGINEER PRIOR TO CONSTRUCTION)

SUMP DRAIN NOTES:

- B1. THE DEPTH OF THE DRAINAGE BOX SHALL BE MODIFIED AS NECESSARY TO ALLOW FLUSH LINE TO DRAIN.
- B2. MESH/GEOGRID DIMENSIONS: NO LESS THAN 1" LESS THAN INNER DIMENSIONS, ALL SIDES.



SECONDARY WATER AIR/VACUUM RELIEF STATION

PIPE & FITTING SCHEDULE

NO.	DESCRIPTION	FITTING
A	2" COMBINATION AIR-VACUUM RELIEF VALVE "A.R.I." MODEL D-040 P W/ NPT CONNECTIONS	THR.
B	2" BRASS BALL VALVE (1/4 TURN)	THR.
C	2" NYLON COATED W/ DOUBLE S.S. STRAPS SERVICE SADDLE	THR.
D	2" BRASS PIPE	THR.

- NOTES:
1. USE A 1" HEAVY-DUTY COMBINATION AIR-VACUUM RELIEF VALVE "APCO" MODEL 143C WHEN SPECIFIED BY THE CITY CULINARY WATER DIVISION.
 2. WHERE APPLICABLE, AIR-VACUUM RELIEF VALVE ASSEMBLY SIZE MAY NEED TO BE INCREASED. THIS IS A CASE BY CASE ITEM DETERMINED BY THE CITY WATER DIVISION OR CITY ENGINEER.
 3. RAISE ALL MANHOLES TO FINISHED GRADE OF STREET FOLLOWING PAVING WITH A CONCRETE COLLAR. (SEE SHEET R11)



Brett M. Jones
CITY ENGINEER
12/15/2022
DATE

REV.	DATE

SCALE:
N.T.S.

DESIGNED _____
DRAWN _____
CHECKED _____



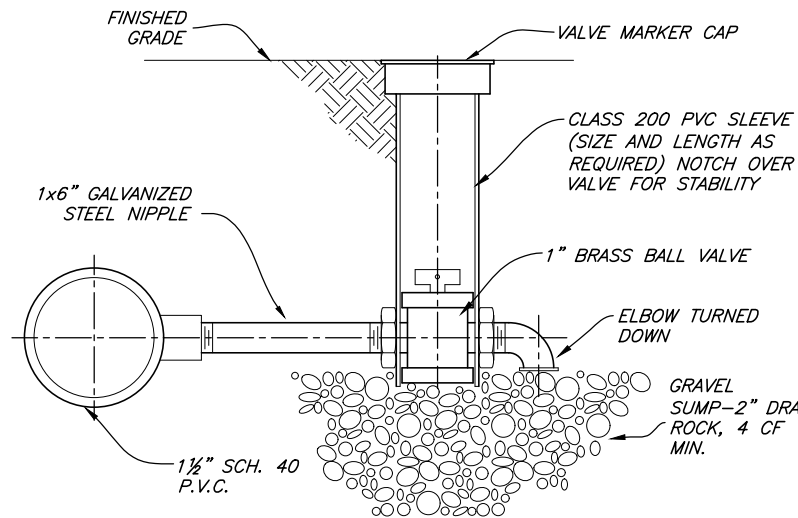
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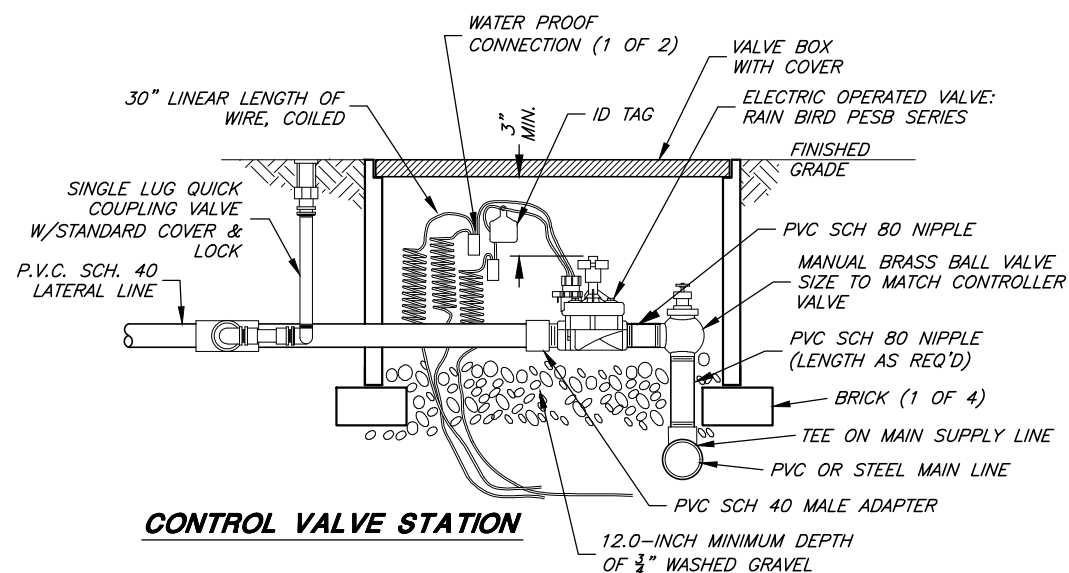
PUBLIC WORKS

BRIGHAM CITY CORPORATION
PUBLIC WORKS - SECONDARY WATER (IRRIGATION) SYSTEM STANDARDS
SECONDARY WATER AIR/VAC & DRAIN DETAILS

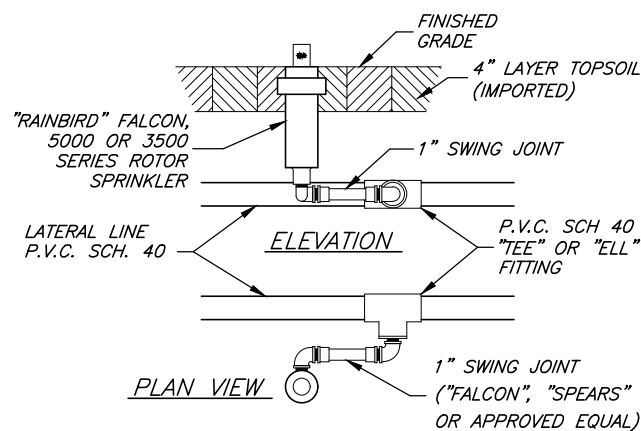
SHEET:
SW2
OF 45 SHEETS
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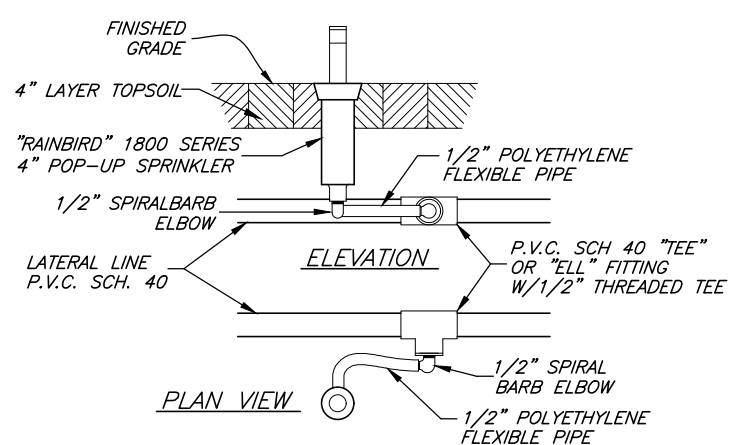
MANUAL DRAIN VALVE



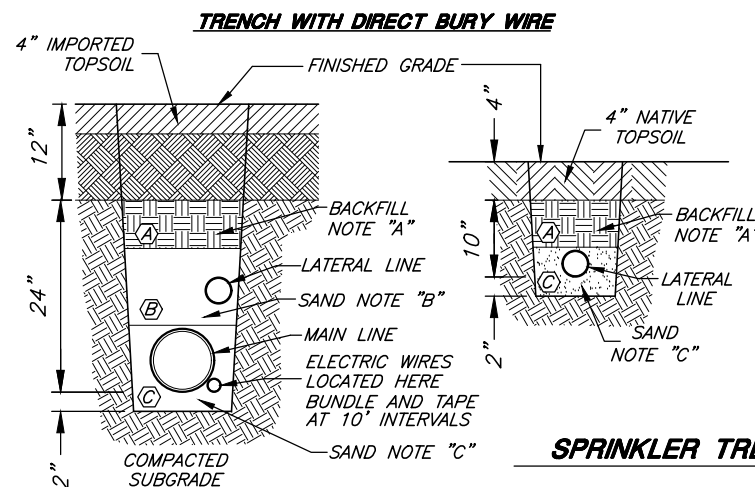
CONTROL VALVE STATION



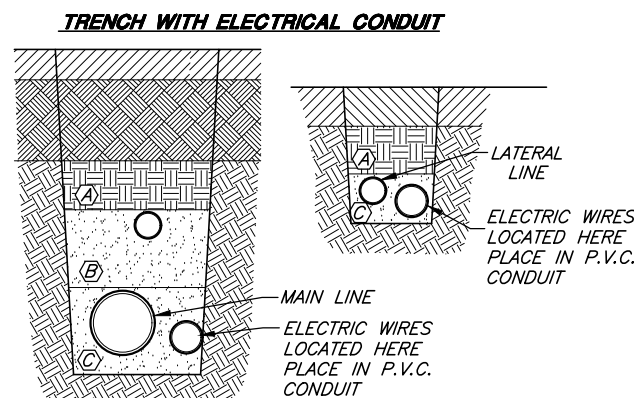
ROTOR HEAD CONNECTION DETAIL



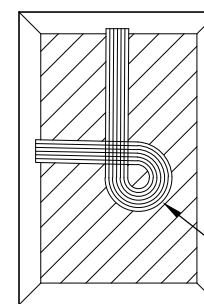
1800 SERIES HEAD CONNECTION DETAIL



SPRINKLER TRENCH DETAILS



WIRE W/O CONDUIT

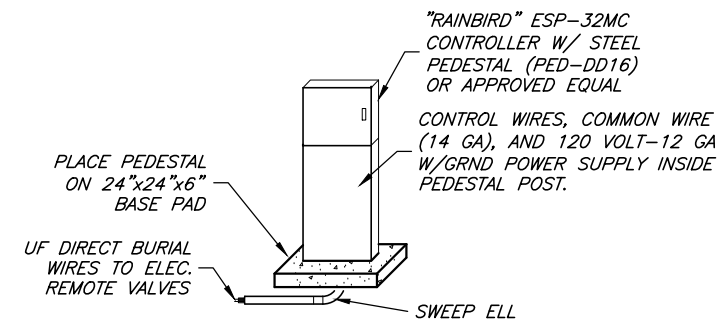


TRENCH NOTES:

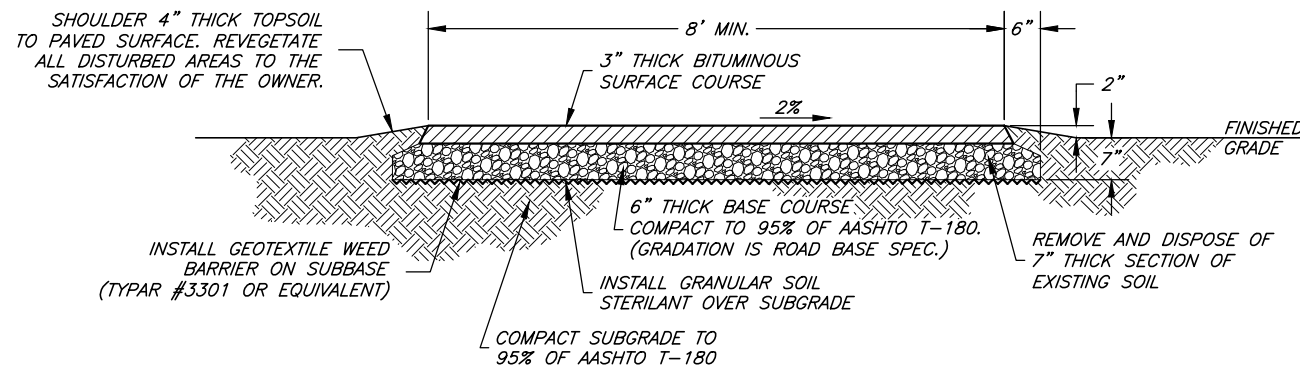
- (A) USE EXCAVATED TRENCH MATERIAL NOT TO EXCEED 2" DIA. ROCKS.
- (B) IN CASES WHERE LATERAL LINE IS INSTALLED IN MAINLINE TRENCH, USE SAND TO BACKFILL TRENCH SO THAT LATERAL LINE IS 14" BELOW FINISHED GRADE & COVERED W/ SAND.
- (C) USE SAND TO PROVIDE A 2" BED AND COVER ALL P.V.C. PIPES AND ELECTRICAL WIRES. IN CASES WHEN NATIVE MATERIAL IS NOT ACCEPTABLE AS BACKFILL.
- GEN. NOTE: LOCATE ALL TRENCHES 12" AWAY FROM BUILDINGS, SIDEWALKS, OR ANY HARD SURFACE. SETTLE ALL TRENCHES W/ WATER PRIOR TO FINE GRADING AND RAKING OF TOPSOIL. MAIN LINES RUNNING IN SAME TRENCH SHOULD BE SIDE BY SIDE WITH A MINIMUM DISTANCE OF 6" APART.

SPRINKLER NOTES:

1. INSTALL ALL WIRING ACCORDING TO LOCAL CODES. ALL WIRES ABOVE FINISHED GRADE TO BE INSTALLED IN METAL CONDUITS.
2. SPACE SPRINKLER HEADS AT A MAXIMUM OF 95% OF COVERAGE DISTANCE.



AUTOMATIC CLOCK DETAIL



8' ASPHALT TRAIL CROSS SECTION

TRAIL NOTES:

- A1. TRAILS SHOULD BE DESIGNED AND CONSTRUCTED AT GRADES LESS THAN 8% GRADE TO PROMOTE ACCESSIBLE USE.
- B1. GRADE AVERAGES OF LESS THAN 6% WILL PROVIDE THE MOST USER FRIENDLY EXPERIENCE AND ARE PREFERRED.
- C1. WHERE POSSIBLE A SLIGHT MEANDERING ALIGNMENT SHOULD BE USED.
- D1. WHERE REQUIRED BENCHES SHOULD BE SPACED APPROXIMATELY EVERY 1/4 MILE



Brett M. Jones
CITY ENGINEER
12/15/2022
DATE

REV.	DATE

SCALE:
N.T.S.

DESIGNED _____
DRAWN _____
CHECKED _____



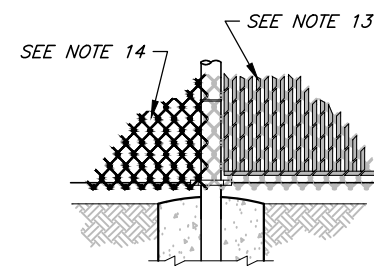
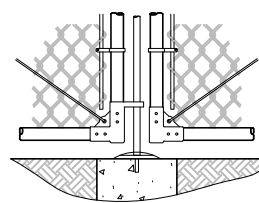
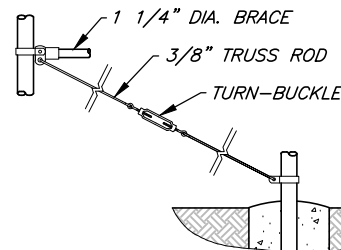
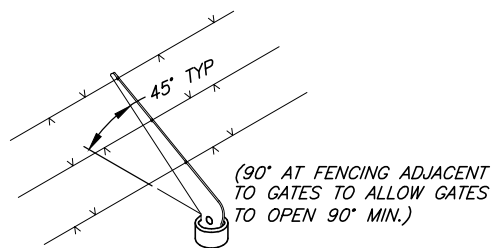
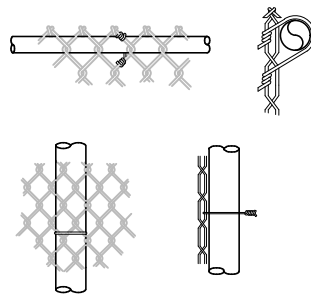
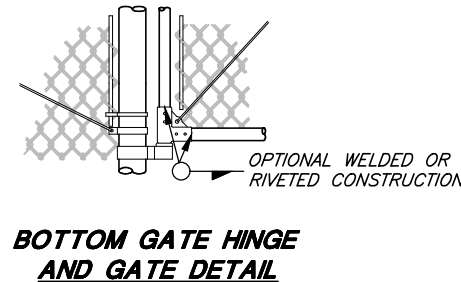
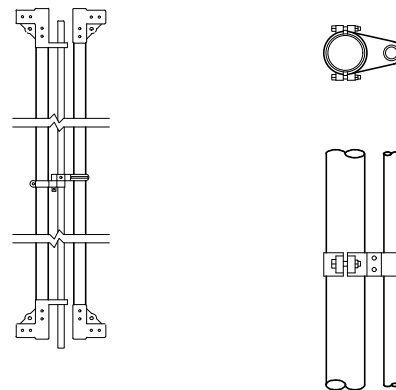
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PUBLIC WORKS

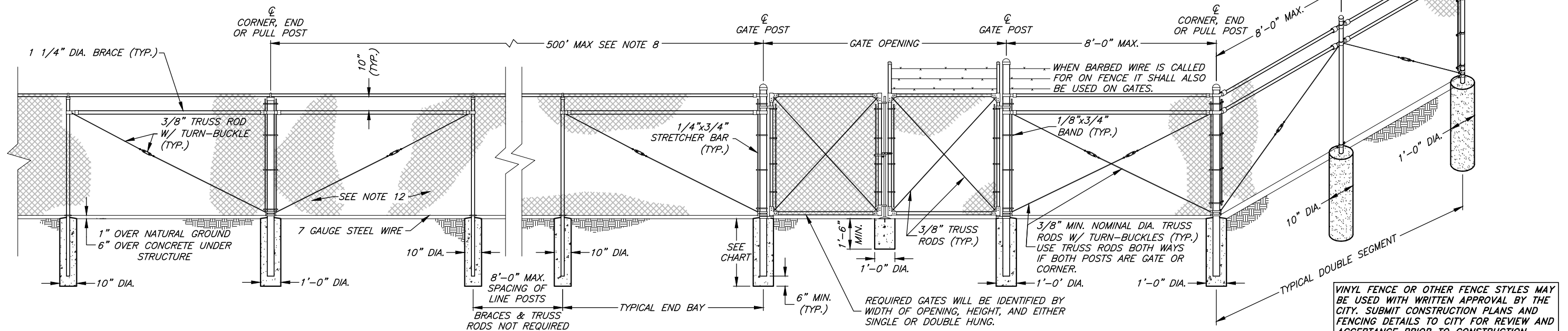
BRIGHAM CITY CORPORATION
PUBLIC WORKS - GENERAL CONSTRUCTION STANDARDS
MUNICIPAL SPRINKLER IRRIGATION & TRAIL SECTION DETAILS

SHEET:
G1
OF 45 SHEETS
0



HEIGHT	GATE OPENING	GATE POST	GATE FRAME
UNDER 6 FEET	SINGLE TO 6' OR DOUBLE TO 12'	2"	1"
	SINGLE OVER 6' TO 8' OR DOUBLE OVER 12' TO 16'	2 1/2"	1 1/2"
	SINGLE OVER 8' TO 12' OR DOUBLE 16' TO 24'	4"	
6 FEET AND OVER	SINGLE TO 6' OR DOUBLE TO 12'	3 1/2"	1 1/2"
	SINGLE OVER 6' TO 12' OR DOUBLE OVER 12' TO 24'	4"	
	SINGLE OVER 12' TO 18' OR DOUBLE OVER 24' TO 36'	6"	
	SINGLE OVER 18' OR DOUBLE OVER 36'	8"	

HEIGHT OF FABRIC	DEPTH OF POSTS	LENGTH OF END, CORNER OR PULL POST	LENGTH OF LINE POST	SIZE OF POSTS	
				END, CORNER, & PULL POSTS	LINE POST
				NOM. SIZE	NOM. SIZE
7'	3'	10'	9'-8"	2 1/2"	2"
6'	3'	9'	8'-8"	2 1/2"	2"
5'	3'	8'	7'-8"	2"	1 1/2"
4'	2'	6'	5'-8"	2"	1 1/2"
3'	2'	5'	4'-8"	2"	1 1/2"



VINYL FENCE OR OTHER FENCE STYLES MAY BE USED WITH WRITTEN APPROVAL BY THE CITY. SUBMIT CONSTRUCTION PLANS AND FENCING DETAILS TO CITY FOR REVIEW AND ACCEPTANCE PRIOR TO CONSTRUCTION.



Brett M. Jones
CITY ENGINEER
12/15/2022
DATE

SCALE:

N.T.S.

DESIGNED _____
DRAWN _____
CHECKED _____

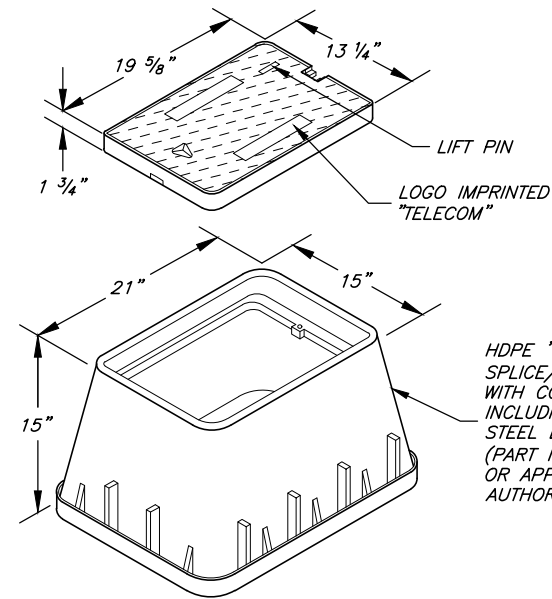


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PUBLIC
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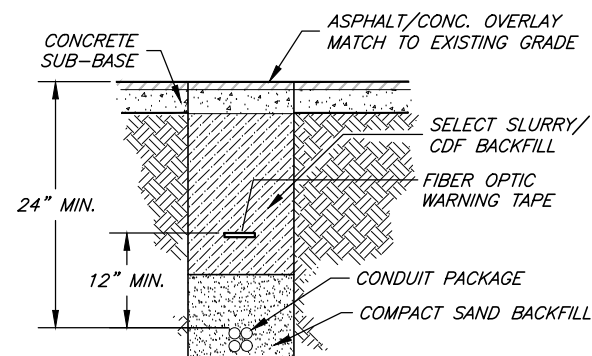
BRIGHAM CITY CORPORATION
PUBLIC WORKS - GENERAL CONSTRUCTION STANDARDS
CHAIN LINK FENCE STANDARD DETAILS

SHEET:
2
SHEETS
0

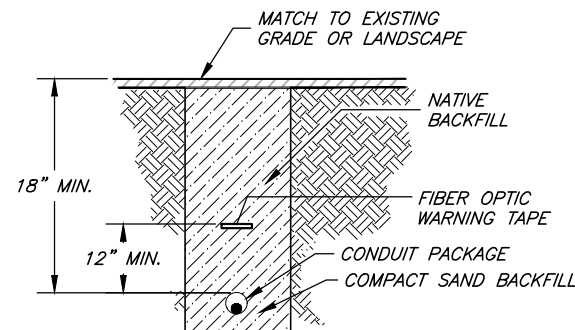


BASE OUTER DIMENSIONS: 20" X 26"
LOAD: STATIC, 2,500 LBS

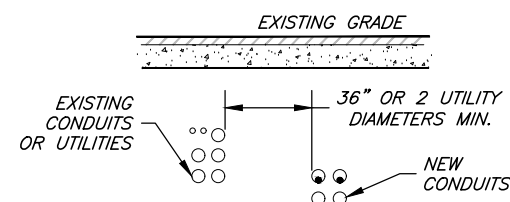
TYPICAL FIBER OPTIC SERVICE BOX



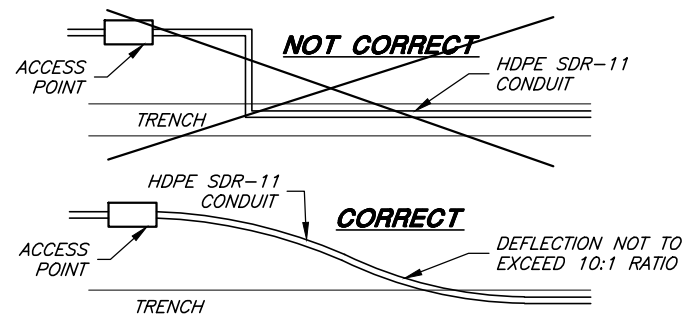
TYPICAL FIBER OPTIC TRENCH



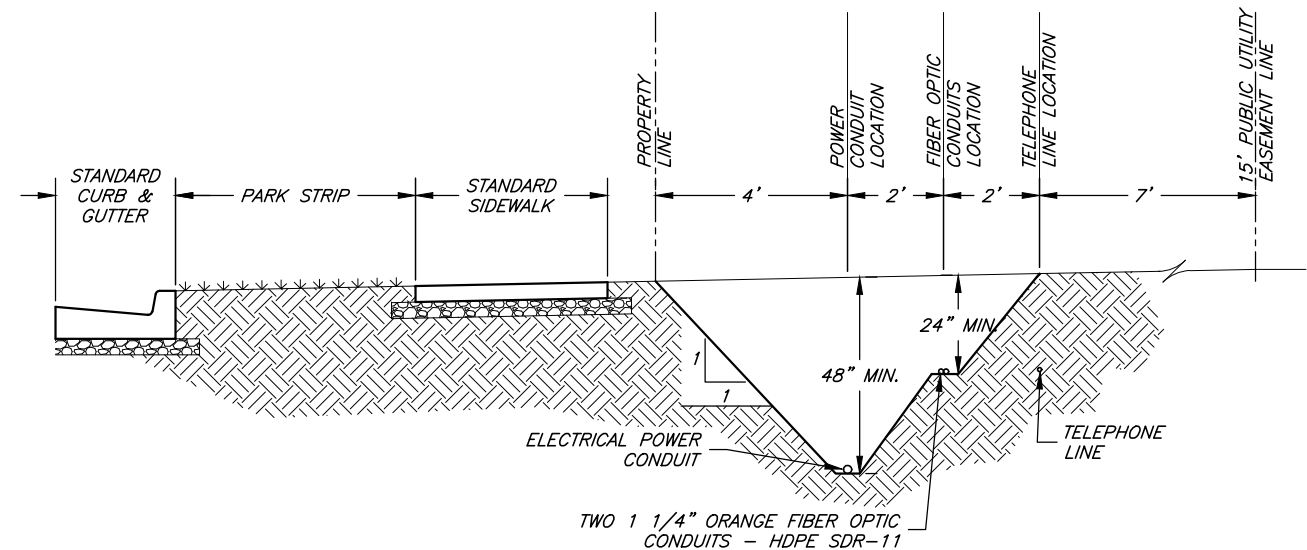
**TYPICAL BUILDING/
SUBSCRIBER LATERAL**



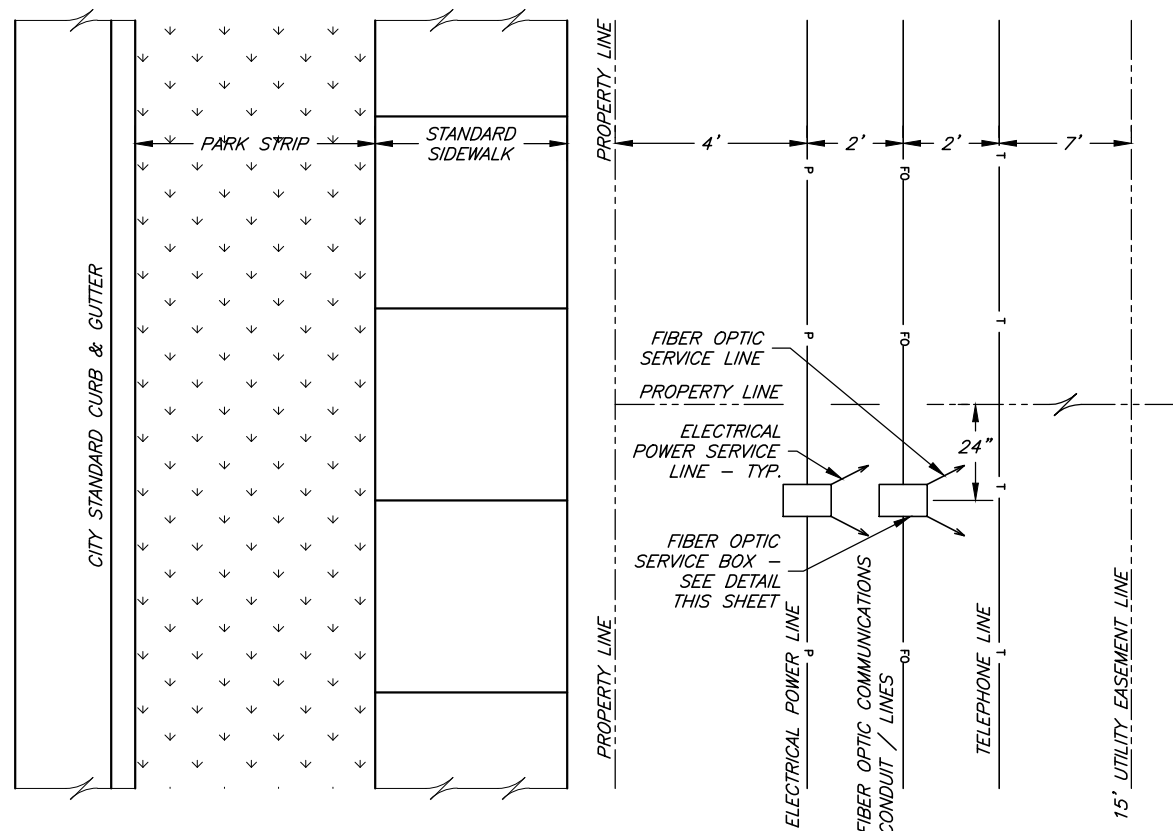
**TYPICAL CONDUIT LOCATION
NEAR EXISTING UTILITIES**



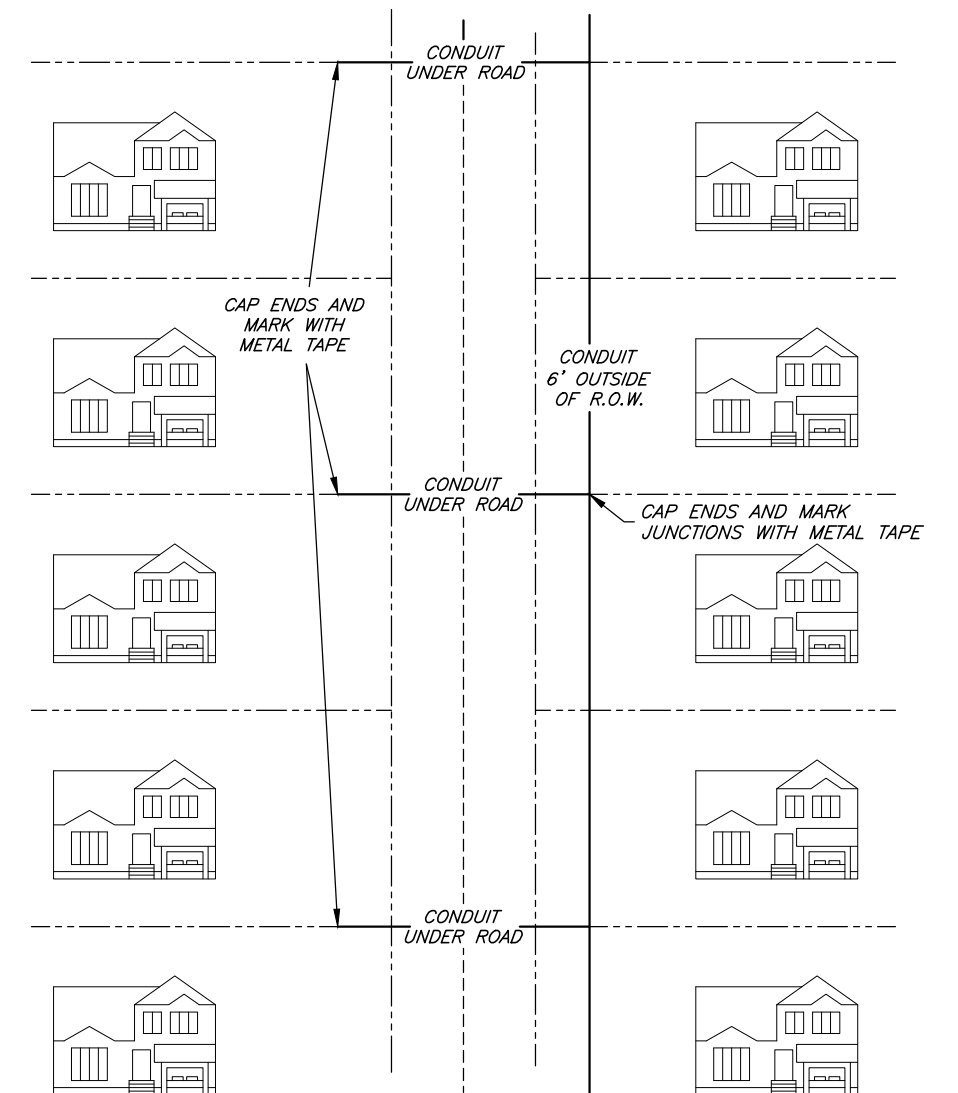
CONDUIT BENDS



TYPICAL NEW UTILITY LOCATION TRENCH SECTION



TYPICAL FIBER OPTIC LINE LOCATION DETAIL



TYPICAL STREET LAYOUT FOR CONDUIT PLACEMENT



Brett M. Jones
CITY ENGINEER
12/15/2022
DATE

REV.	DATE

SCALE:
N.T.S.

DESIGNED _____
DRAWN _____
CHECKED _____



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PUBLIC WORKS

BRIGHAM CITY CORPORATION
PUBLIC WORKS - GENERAL CONSTRUCTION STANDARDS
STANDARD FIBER OPTIC COMMUNICATION LINE DETAILS

SHEET:
G3
OF 45 SHEETS
0

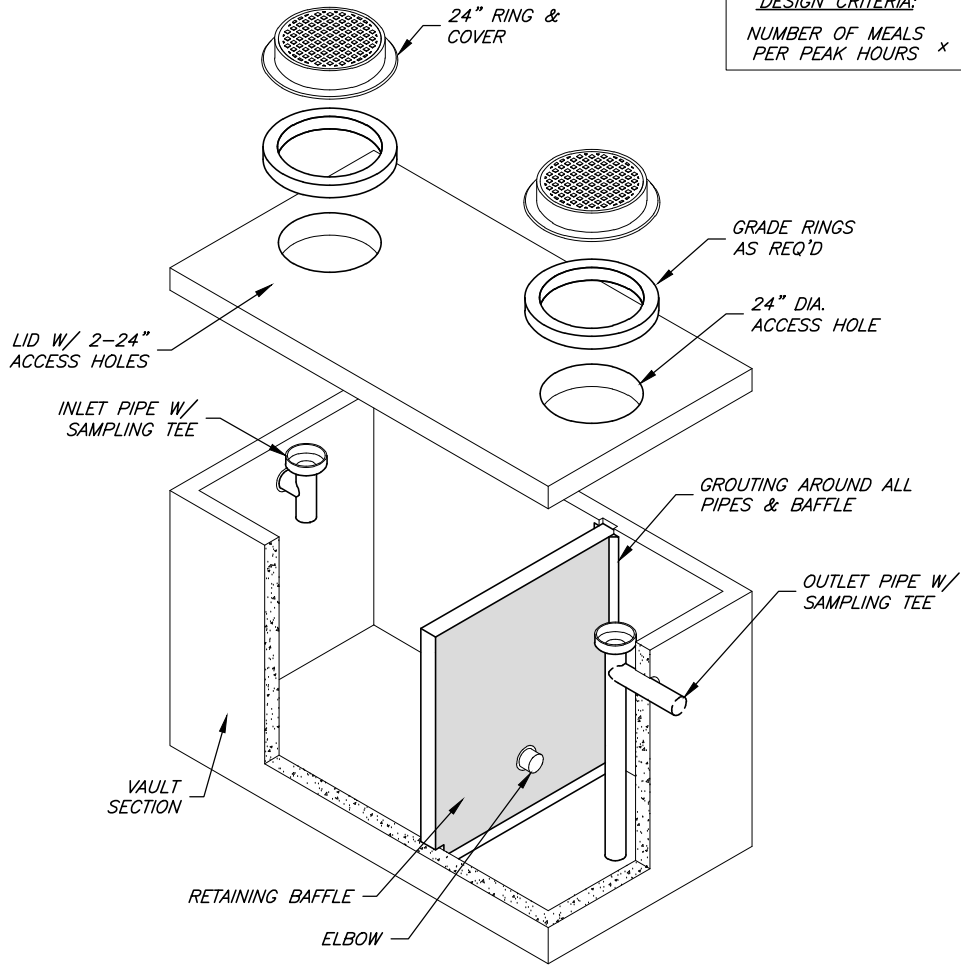
GREASE INTERCEPTOR NOTES:

- A1. CONCRETE: 28 DAY COMPRESSIVE STRENGTH $f'_c = 4500$ psi
A2. REBAR: ASTM A-615 GRADE 60
A3. MESH: ASTM A-185 GRADE 65
A4. DESIGN: ACI-318-83 BUILDING CODE ASTM C-857 "MINIMUM STRUCTURAL DESIGN LOADING FOR UNDERGROUND PRECAST CONCRETE UTILITY STRUCTURES"
A5. LOADS: H-20 TRUCK WHEEL w/ 30% IMPACT PER AASHTO
A6. FILL w/ CLEAN WATER PRIOR TO START-UP OF SYSTEM
A7. CONTRACTOR TO SUPPLY & INSTALL ALL PIPING & SAMPLING TEES
A8. GRAY WATER ONLY, BLACK WATER SHALL BE CARRIED BY SEPARATE SIDE SEWER

GREASE INTERCEPTOR DIMENSION TABLE							
GALLON CAPACITY	430	890	1375	1800	2175	2550	5000
DIM "A"	6'-0"	8'-0"	12'-0"	10'-0"	12'-0"	14'-0"	14'-0"
DIM "B"	4'-0"	6'-0"	6'-0"	8'-0"	8'-0"	8'-0"	8'-0"
WATER DEPTH DIM "C"	2'-8"	2'-8"	2'-8"	3'-2"	3'-2"	3'-2"	7'-2"
DIM "D"	2'-10"	2'-10"	2'-10"	3'-4"	3'-4"	3'-4"	7'-4"
DIM "E"	3'-6"	3'-6"	3'-6"	4'-0"	4'-0"	4'-0"	8'-0"
DIM "F"	3'-4"	3'-4"	3'-4"	3'-10"	3'-10"	3'-10"	7'-10"
WEIGHT	12,760	20,510	27,740	31,485	35,980	40,475	43,840
DESIGN CRITERIA: UNIFORM PLUMBING CODE - APPENDIX H							
NUMBER OF MEALS PER PEAK HOURS \times WASTE FLOW RATE \times RETENTION TIME \times STORAGE FACTOR = CAPACITY IN GALLONS							

OIL/WATER SEPARATOR NOTES:

- B1. CONCRETE: 28 DAY COMPRESSIVE STRENGTH $f'_c = 4500$ psi
B2. REBAR: ASTM A-615 GRADE 60
B3. MESH: ASTM A-185 GRADE 65
B4. DESIGN: ACI-318-83 BUILDING CODE ASTM C-857 "MINIMUM STRUCTURAL DESIGN LOADING FOR UNDERGROUND PRECAST CONCRETE UTILITY STRUCTURES"
B5. LOADS: H-20 TRUCK WHEEL w/ 30% IMPACT PER AASHTO
B6. FILL w/ CLEAN WATER PRIOR TO START-UP OF SYSTEM
B7. CONTRACTOR TO SUPPLY & INSTALL ALL PIPING & SAMPLING TEES
B8. ALL BAFFLES/WEIR PLATES TO BE GALVANIZED STEEL OR CONCRETE.
B9. WATER DEPTH = 4'-0"
B10. GROUT AROUND ALL PIPES & BAFFLES

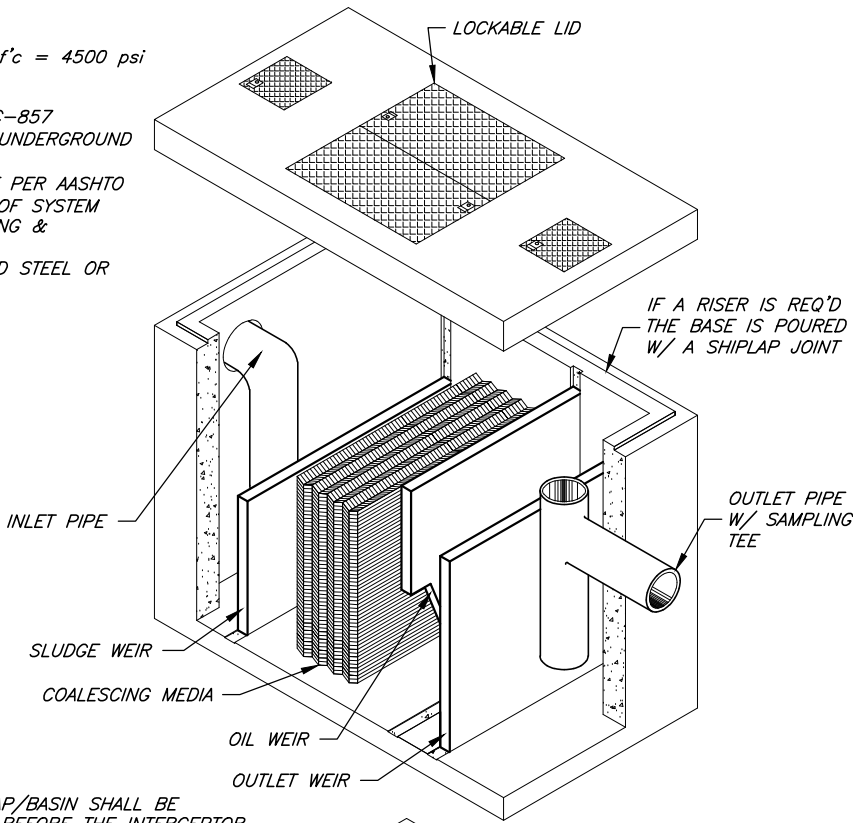
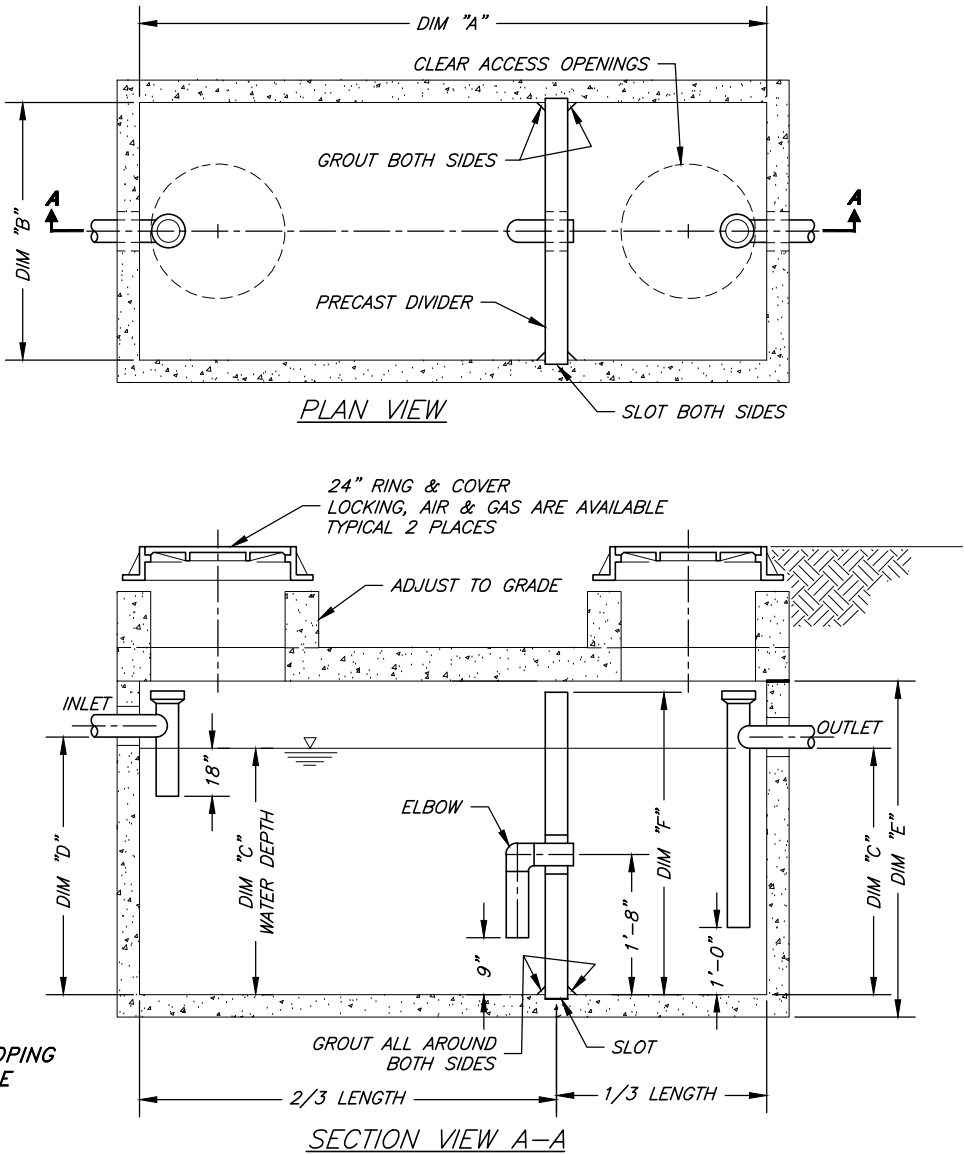


GREASE INTERCEPTOR EXAMPLE

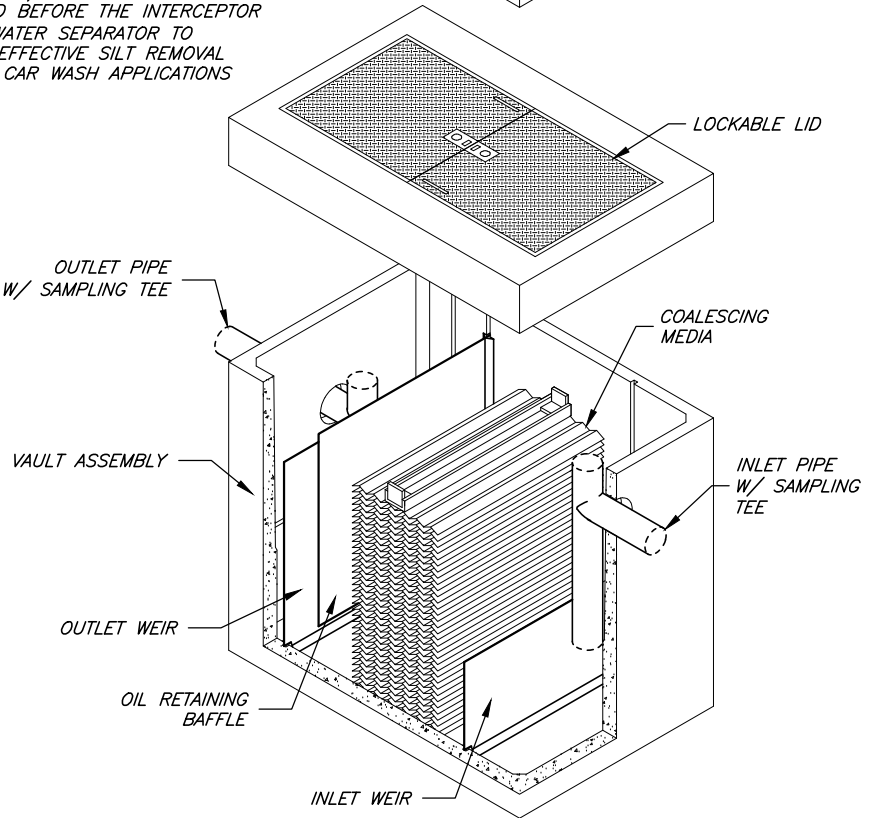
430 - 5,000 GALLON CAPACITIES

GENERAL NOTES:

- ALL GREASE & OIL/WATER SEPARATORS ARE TO BE SIZED BY THE DEVELOPING ENGINEER. SUBMIT ENGINEERED CONSTRUCTION PLANS AND DETAILS TO THE BRIGHAM CITY PUBLIC WORKS DEPARTMENT AND THE CITY ENGINEER FOR REVIEW AND FINAL APPROVAL PRIOR TO CONSTRUCTION.
- THE GREASE & OIL/WATER SEPARATORS SHOWN ON THIS SHEET ARE EXAMPLES OF RECOMMENDED STRUCTURES FOR USE WITHIN THE CITY. OTHER OPTIONS, STYLES, AND TYPES OF STRUCTURES WILL BE REVIEWED ON A CASE BY CASE BASIS.
- ALL HYDROMECHANICAL GREASE INTERCEPTORS; FATS, OILS, AND GREASES DISPOSAL SYSTEMS AND AUTOMATIC GREASE REMOVAL DEVICES SHALL BE SIZED, DESIGNED AND TESTED, AND INSTALLED IN COMPLIANCE WITH ASME A112.14.3



NOTE:
A SILT TRAP/BASIN SHALL BE INSTALLED BEFORE THE INTERCEPTOR OR OIL/WATER SEPARATOR TO ENSURE EFFECTIVE SILT REMOVAL FOR ALL CAR WASH APPLICATIONS



OIL/WATER SEPARATORS
EXAMPLE



DESIGNED	_____
DRAWN	_____
CHECKED	_____
DATE	12/15/2022

SCALE:
N.T.S.



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PUBLIC WORKS

BRIGHAM CITY CORPORATION
PUBLIC WORKS - GENERAL CONSTRUCTION STANDARDS
TYPICAL GREASE & OIL/WATER SEPARATORS

SHEET:
G4
OF 45 SHEETS
0



- ① C-900/905 FUSIBLE PVC OR HDPE CARRIER PIPING
- ② HDPE OR C-900/905 WALL ANCHOR
- ③ RESTRAINED JOINT CONNECTIONS ("MEGALUG" OR APPROVED EQUAL)
- ④ CONCRETE ANCHOR
- ⑤ STANDARD PIPE JOINT (E.G., BELL+SPIGOT CONNECTIONS)



NOTE: CUTOFF WALLS ARE TO BE INSTALLED
CENTERED ON A PIPE JOINT



ANCHOR BLOCK NOTES:

- A. PIPE ANCHOR BLOCKS SHALL BE INSTALLED ON ALL CULINARY WATER, STORM DRAIN, SANITARY SEWER, AND IRRIGATION WATER LINES WHERE SLOPE EXCEEDS 20%.

<i>SLOPE</i>	<i>SPACING</i>
20%–35%	36'
35%–50%	24'
50%+	16'



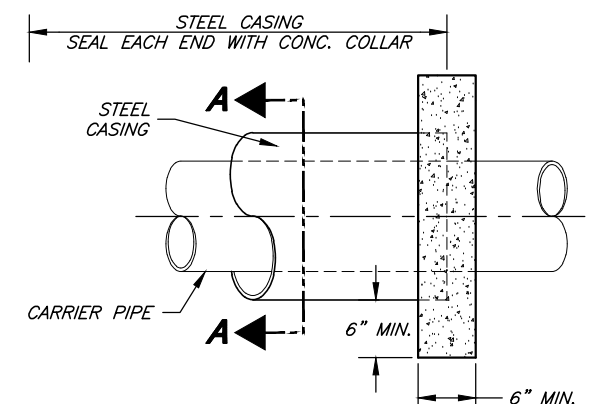
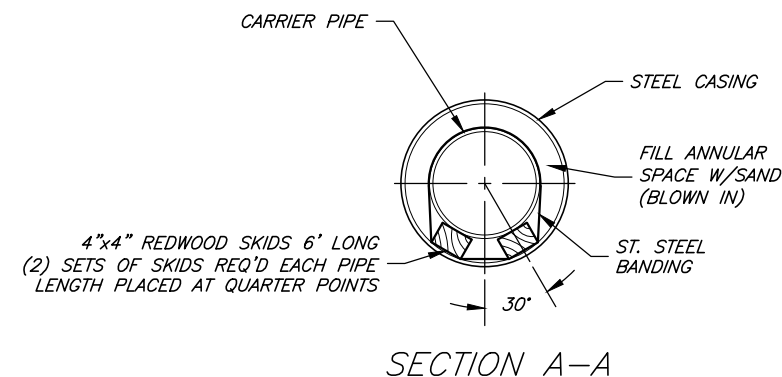
WITH CASING CUT AWAY TO SHOW DETAIL (NTS)

MINIMUM THICKNESS		DIAMETER OF CASING PIPE
.2500"	1/4"	12" OR LESS
.3125"	5/16"	OVER 12" – 18"
.3750"	3/8"	OVER 18" – 22"
.4375"	7/16"	OVER 22" – 28"
.5000"	1/2"	OVER 28" – 34"
.5625"	9/16"	OVER 34" – 42"
.6250"	5/8"	OVER 42" – 48"
OVER 48" MUST BE APPROVED BY CITY ENGINEER		



- CASEMENT DETAIL NOTES:

1. CARRIER PIPE TO BE SPECIFIED BY CITY ENGINEER.
2. CARRIER PIPE SHALL BE TESTED BEFORE FILLING CASING WITH SAND.
3. SKIDS SHALL BE SECURELY ATTACHED TO CARRIER PIPE WITH ST. STEEL BANDS. MINIMUM OF TWO BANDS PER SKID.
4. SKIDS SHALL BE NOTCHED TO RECEIVE STEEL BANDS.
5. SKIDS SHALL BE GREASED BEFORE CARRIER PIPE INSTALLATION.
6. SKIDS SHALL BE ROUNDED OR BEVELED ON LEADING EDGE.
7. AS AN ALTERNATE TO REDWOOD SKIDS, THE CONTRACTOR MAY USE PREFABRICATED PLASTIC CASING SKIDS ATTACHED AROUND THE CARRIER PIPE. (SEE CENTERING GUIDE DETAIL THIS SHEET)
8. CASING PIPE SHALL BE SMOOTH STEEL WITH MINIMUM YIELD STRENGTH = 35,000 P.S.I.
9. METHOD OF INSTALLATION OF CARRIER PIPE IN CASING SHALL BE AS RECOMMENDED BY CARRIER PIPE MANUFACTURER.



CASEMENT DETAIL

FOR PIPELINE BORE PROJECTS



Brett M. Jones
CITY ENGINEER
12/15/2022
DATE

[illegible]

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PUBLIC
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BRIGHAM CITY CORPORATION
PUBLIC WORKS - GENERAL CONSTRUCTION STANDARDS
TYPICAL CLAY PLUG, ANCHOR BLOCK, CONCRETE
CUTOFF WALL AND PIPELINE CASING DETAILS

SHEET:
25
SHEETS
0

WATER EFFICIENT (WATER WISE) LANDSCAPING:

1. PURPOSE:

THE PURPOSE OF THESE WATER EFFICIENCY STANDARDS IS TO CONSERVE THE PUBLIC'S WATER RESOURCES BY ESTABLISHING WATER CONSERVATION STANDARDS FOR OUTDOOR LANDSCAPING.

2. "WATER WISE LANDSCAPING IS REQUIRED FOR ALL DEVELOPMENTS"

A. LANDSCAPES IN NEW SINGLE-FAMILY RESIDENTIAL DEVELOPMENTS:

PROVIDE TURF GRASS THAT IS 35% OR LESS OF THE TOTAL FRONT AND SIDE YARD LANDSCAPED AREA. PROVIDE LANDSCAPING DESIGNS THAT MEET THIS STANDARD AT ALL NEW DEVELOPMENTS AND WHEN RENOVATING 50% OR MORE OF AN EXISTING SITE'S LANDSCAPING.

IN NEW RESIDENTIAL DEVELOPMENTS: DO NOT INSTALL TURF GRASS IN THE PARK STRIPS. PROVIDE WATER-CONSERVING PLANTS ACCORDING TO THIS STANDARD AND THE WEBSITES LISTED ON NOTE 3.

B. LANDSCAPES IN NON-RESIDENTIAL DEVELOPMENTS:

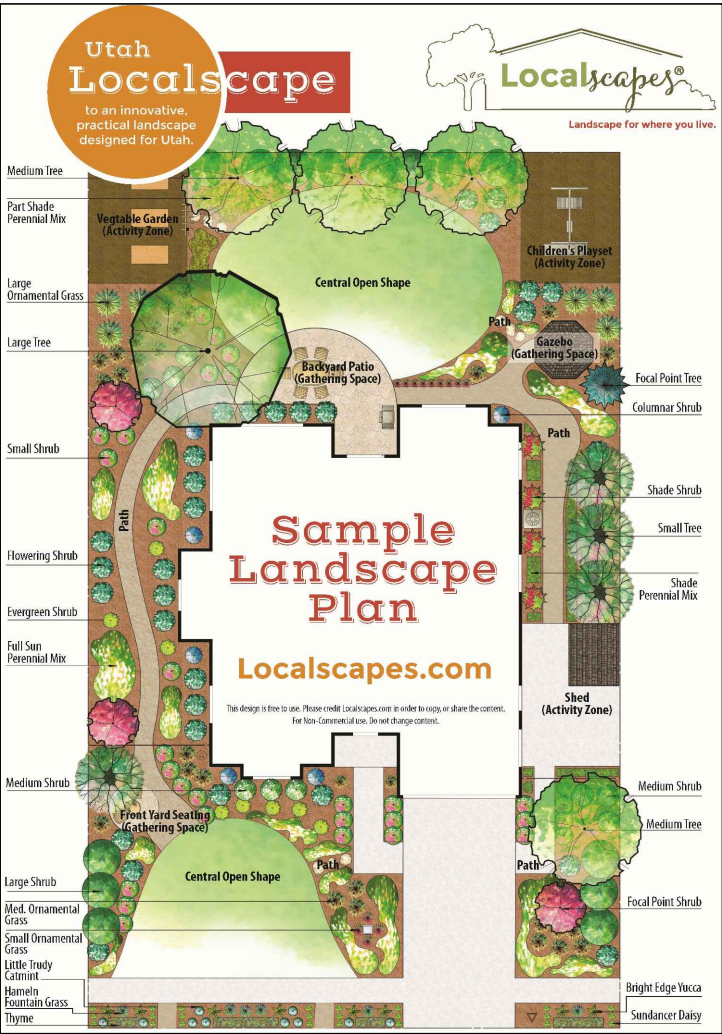
PROVIDE TURF GRASS THAT IS 20% OR LESS OF THE TOTAL LANDSCAPED AREA, OUTSIDE OF ACTIVE RECREATION AREAS. PROVIDE LANDSCAPING DESIGNS THAT MEET THIS STANDARD AT ALL NEW DEVELOPMENTS AND WHEN RENOVATION 50% OR MORE OF AN EXISTING SITE'S LANDSCAPING.

3. USE WATER WISE PLANTINGS AS IDENTIFIED IN THE FOLLOWING WEBSITES:

- A. <https://localscapes.com>
- B. <https://conservationgardenpark.org>
- C. <https://extension.usu.edu/cwel/principles>

4. IMPLEMENT WATER EFFICIENT PRACTICES PER THE RECOMMENDATIONS OF THE WEBSITES LISTED ABOVE:

- A. USE DEEP-ROOTING, WATER-CONSERVING PLANTS (NOT TURF GRASS) ON SLOPES GREATER THAN 25% (4H:1V).
- B. USE WATER CONSERVING PLANTS (NO TURF GRASS) IN LANDSCAPED AREAS LESS THAN 8.0' FEET WIDE.
- C. USE DRIP EMITTERS OR BUBBLERS TO IRRIGATE PLANTS IN NON-TURF AREAS.
- D. PLACE VALVES SO THAT EACH ZONE IS SIMILAR, WITH SIMILAR SLOPE AND SOIL CONDITIONS, PLAN MATERIALS, AND WATERING NEEDS. USE SEPARATE VALVES ON TURF AND NON-TURF AREAS. PLACE DRIP EMITTERS AND SPRINKLERS ON SEPARATE VALVES.
- E. USE A WATER SENSE LABELED SMART IRRIGATION CONTROLLER THAT AUTOMATICALLY ADJUSTS THE FREQUENCY AND/OR DURATION OF IRRIGATION IN RESPONSE TO CHANGING WEATHER CONDITIONS. USE CONTROLLERS EQUIPPED WITH AUTOMATIC RAIN DELAY OR RAIN SHUT-OFF CAPABILITIES.
- F. PROVIDE 3-INCHES TO 4-INCHES OF MULCH ON ALL IRRIGATION NON-TURF AREA TO RETAIN WATER, INHIBIT WEED GROWTH, AND MODERATE SOIL TEMPERATURE. DO NOT PLACE MATERIALS UNDER MULCH THAT PREVENT WATER FROM INFILTRATING.
- G. PROVIDE PLANTS THAT AT MATURITY PROVIDE AT LEAST 50% OF LIVING PLANT COVER AT THEIR GROUND PLANE (NOT INCLUDING TREE CANOPIES.)



<https://localscapes.com>
<https://conservationgardenpark.org>
<https://extension.usu.edu/cwel/principles>



DESIGNED <u>Brett M. Jones</u>	
CITY ENGINEER	
12/15/2022	
DATE	
REV.	DATE

SCALE:	DESIGNED _____
N. T. S.	DRAWN _____
	CHECKED _____



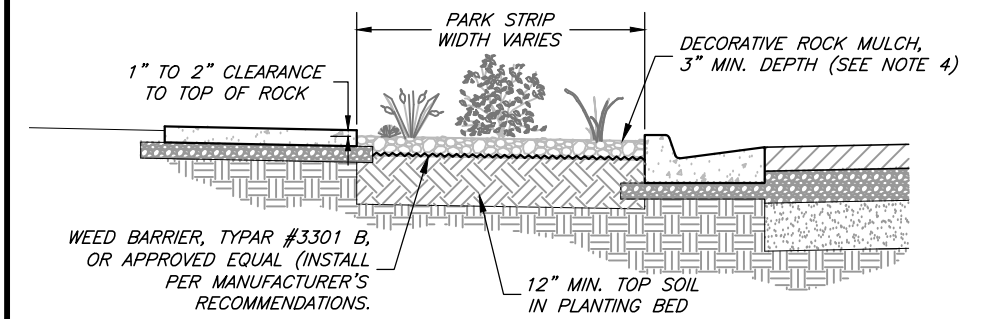
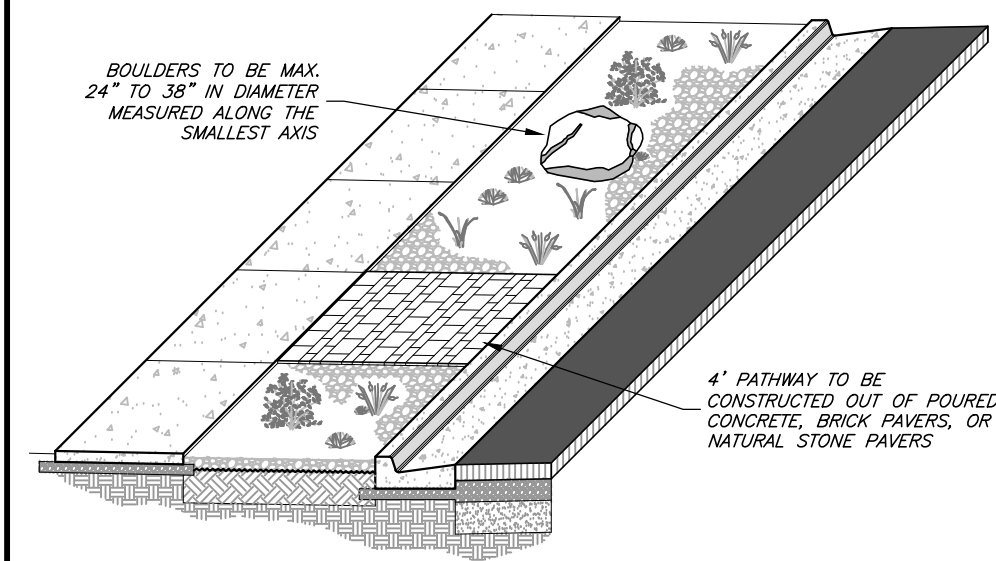
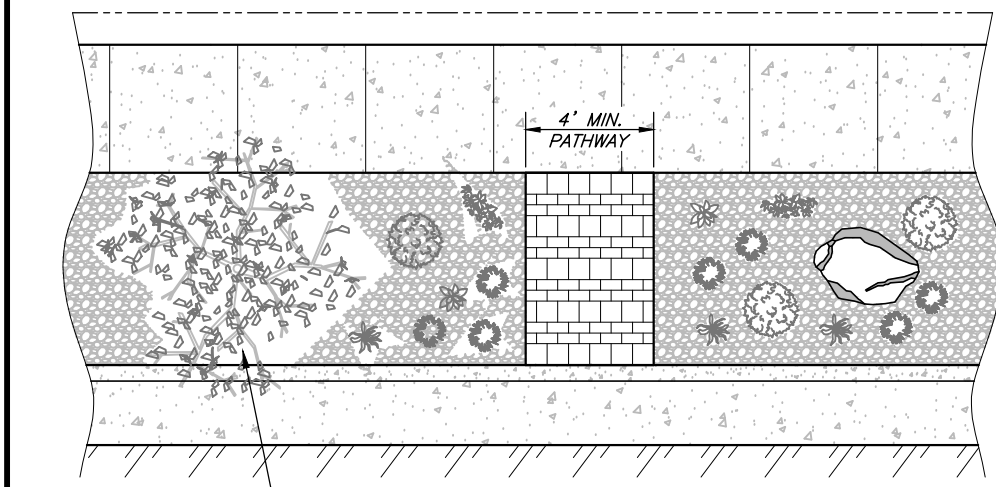
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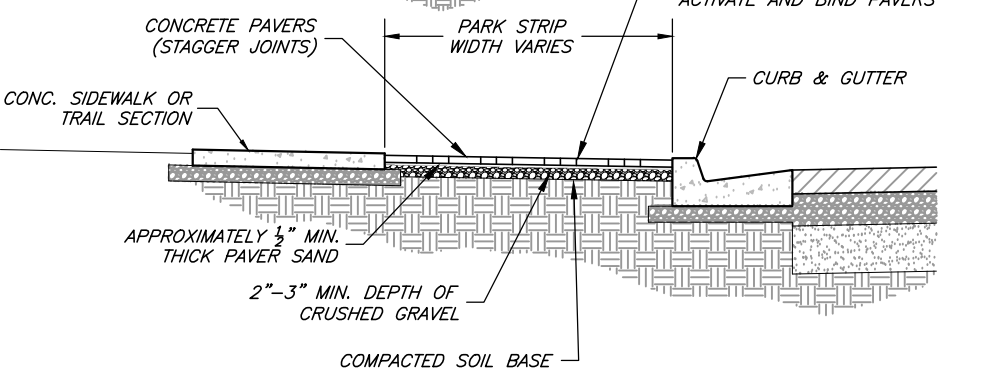
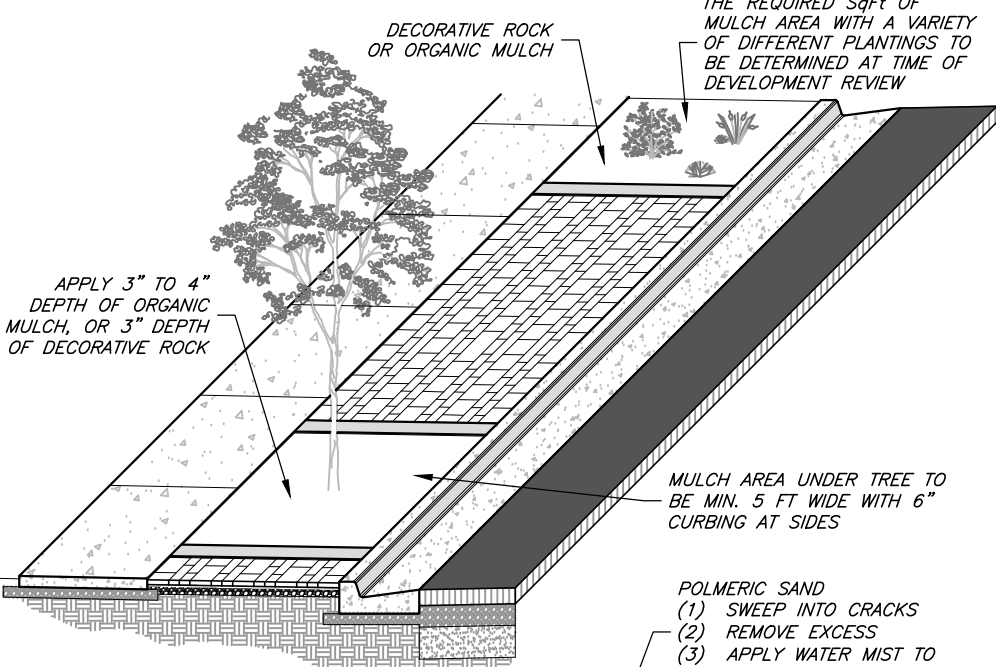
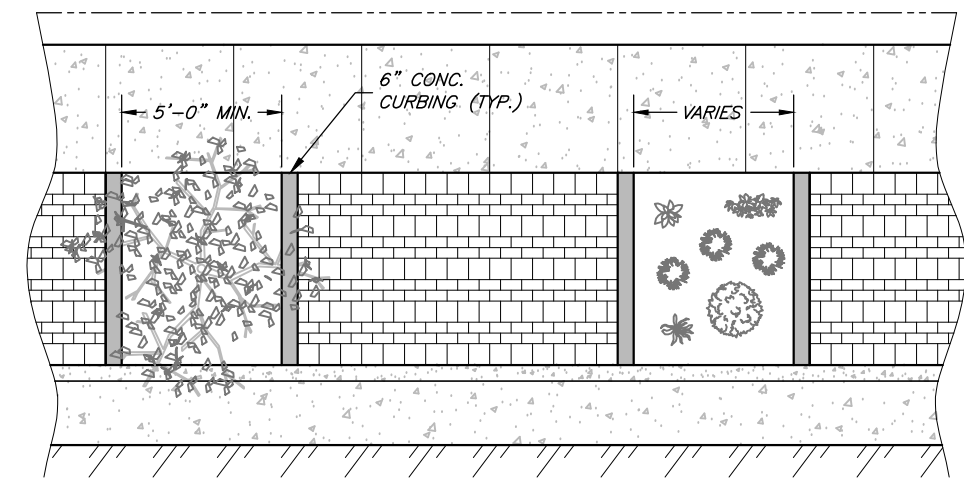
BRIGHAM CITY CORPORATION	
PUBLIC WORKS - LANDSCAPING STANDARDS	
WATER EFFICIENT LANDSCAPING	

SHEET:
L1
OF 45 SHEETS
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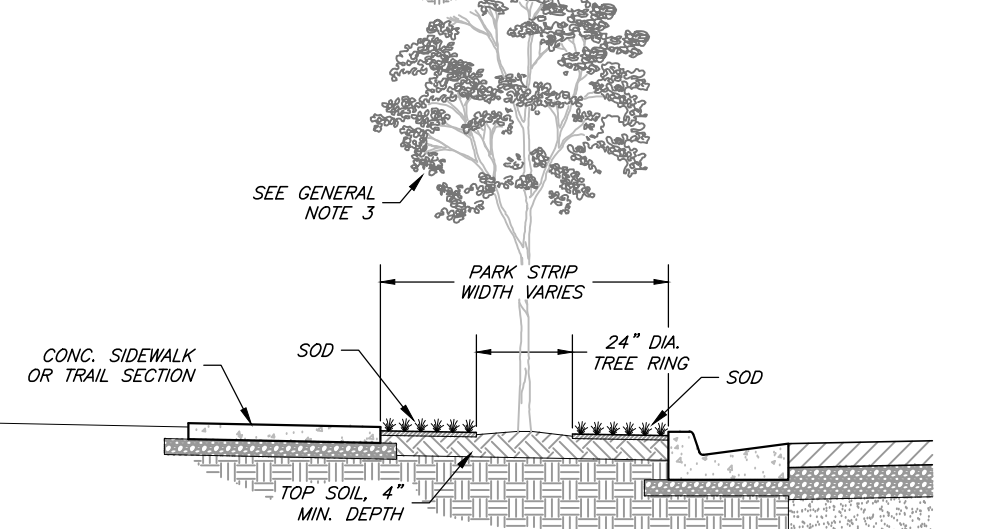
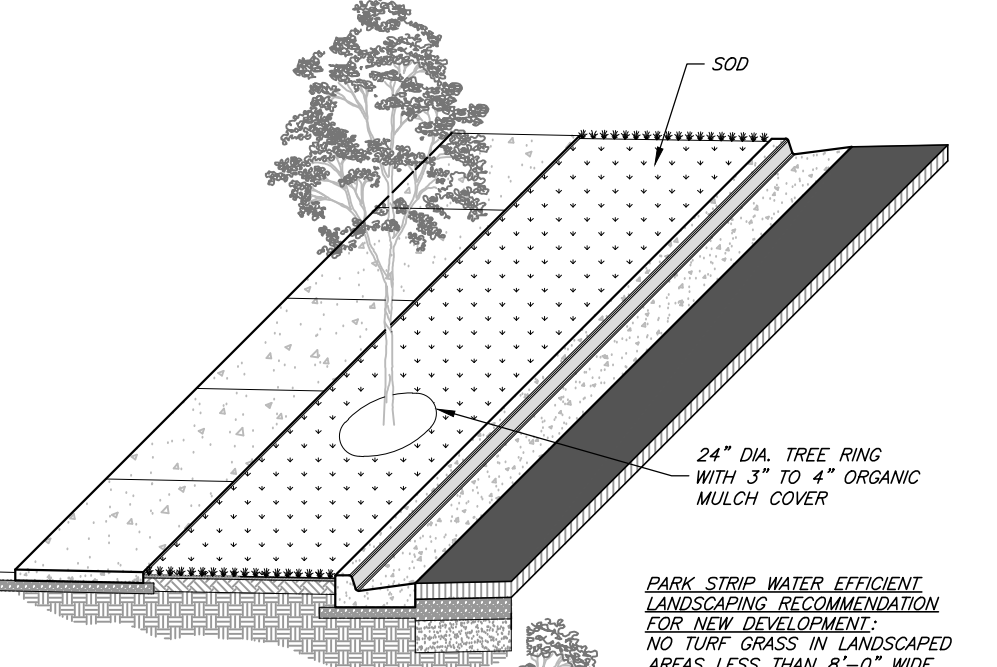
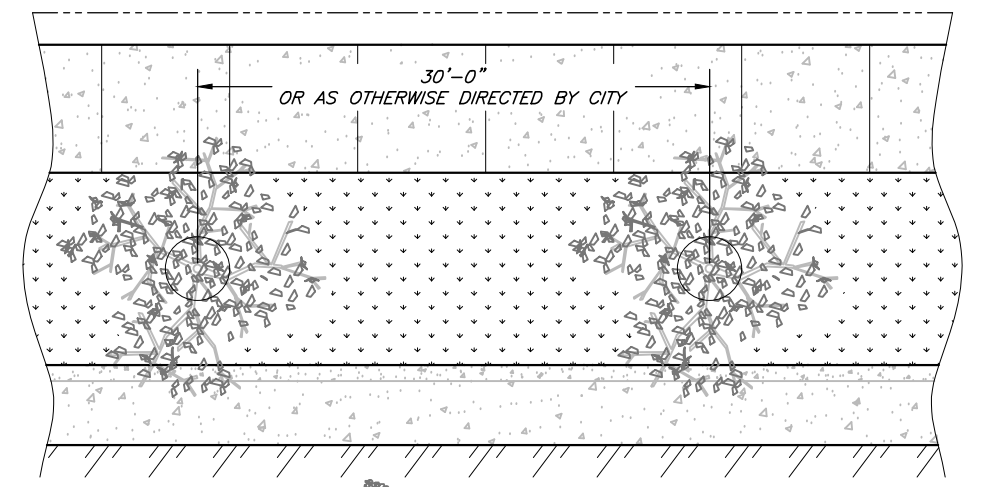
A DECORATIVE ROCK MULCH AND SHRUB / TREES GROUND COVER DETAIL

- PARK STRIP LANDSCAPING GENERAL NOTES:**
1. PARK STRIP SHALL BE LANDSCAPED WITHIN 2 YEARS OF OCCUPANCY.
 2. ALL PLANTED AREAS MUST BE EQUIPPED WITH A WATER WISE IRRIGATION SYSTEM.
 3. DETAILS FOR ALL TREES, PLANTS, SOD, IRRIGATION SYSTEMS AND CONCRETE TO BE SUBMITTED FOR REVIEW AND APPROVED BY THE CITY PRIOR TO INSTALLATION.
 4. DECORATIVE ROCK MULCH SIZE AND COLOR WILL DEPEND ON THE DESIRED LOOK. THE ROCK MULCH DEPTH DEPENDS ON THE SIZE OF ROCK SELECTED, BUT TYPICALLY IS NO LESS THAN 3". THE FINISHED GRADE OF ROCK IS 1" TO 2" BELOW THE TOP OF ANY HARD SURFACE.
 5. INSTALL A 3" PVC IRRIGATION SLEEVE UNDER THE SIDEWALK APPROXIMATELY 5' FROM EACH PROPERTY LINE FOR FUTURE USE BY THE PROPERTY OWNER TO INSTALL THE IRRIGATION SYSTEM INTO THE PLANTER AREA.



B CONCRETE PAVERS DETAIL

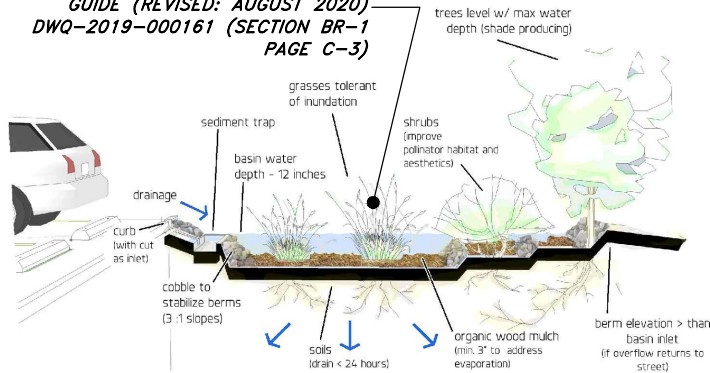
- PARK STRIP LANDSCAPING GENERAL NOTES CONTINUED:**
6. THE PARK STRIP AREA WILL BE MAINTAINED BY THE PROPERTY OWNER
 7. CORNER LOTS HAVE A 40 FOOT SITE TRIANGLE WHICH IS MEASURED AT THE CORNER CURB LINE. IN THIS AREA YOU CAN NOT HAVE PLANT MATERIAL OVER 2' IN HEIGHT
 8. NO TREES IN PARK STRIPS LESS THAN 6'-0" WIDE UNLESS OTHERWISE DIRECTED BY THE CITY.



C TREE AND SOD DETAIL

USE WHERE DIRECTED BY THE CITY (DESIGNATED CORRIDORS OR TO MATCH EXIST. ROADWAY LANDSCAPING)

FOR RAIN GARDEN DETAIL
SEE UTAH LOW IMPACT DEVELOPMENT
GUIDE (REVISED: AUGUST 2020)
DWQ-2019-000161 (SECTION BR-1
PAGE C-3)



Basic Basin Design Considerations

RAIN GARDEN

*** http://www.lid-stormwater.net/site_map.htm ***

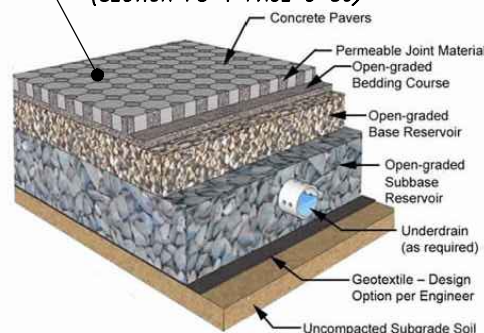
FOR RAIN BARREL SEE UTAH LOW
IMPACT DEVELOPMENT GUIDE (REVISED:
AUGUST 2020) DWQ-2019-000161
(SECTION HR-1 PAGE C-62)



RAIN BARREL

<http://www.goodideasinc.com/products/rain-barrels/rain-wizard-50/>

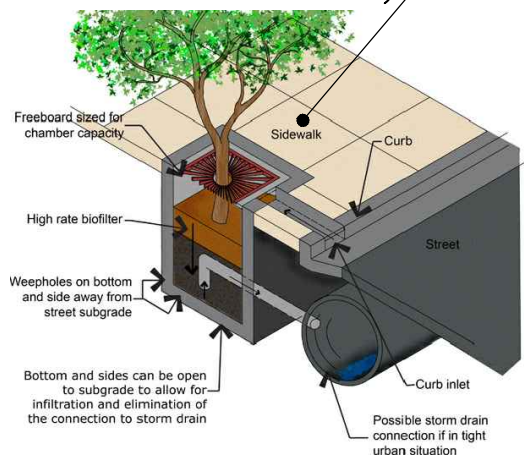
FOR PERVIOUS SURFACES SEE UTAH LOW
IMPACT DEVELOPMENT GUIDE (REVISED:
AUGUST 2020) DWQ-2019-000161
(SECTION PS-1 PAGE C-36)



PERMEABLE PAVER

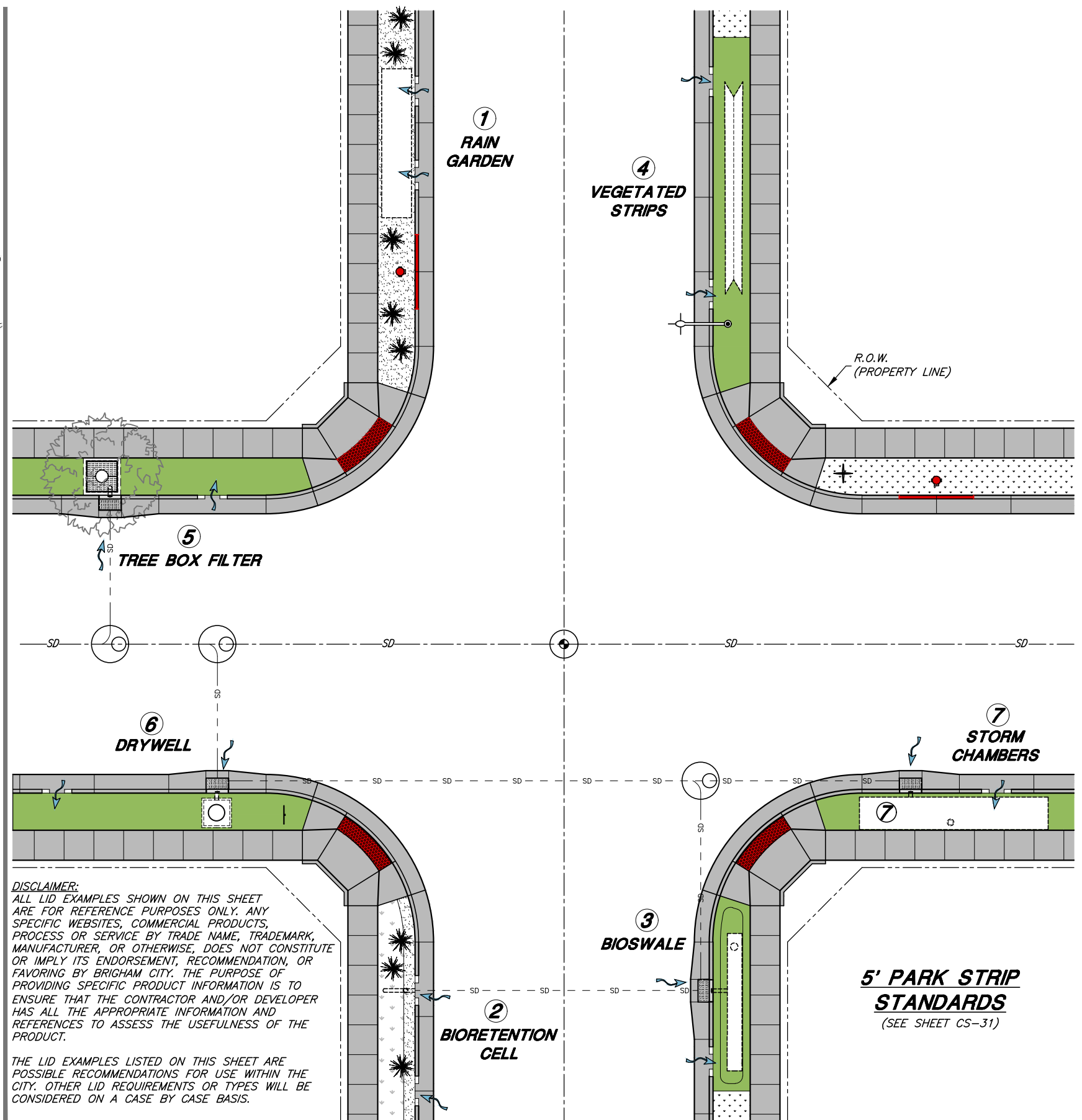
From Smith, D. 2006. *Permeable Interlocking Concrete Pavement—selection design, construction and maintenance*. Third Edition. Interlocking Concrete Pavement Institute. Herndon, VA

FOR TREE BOX FILTER DETAIL
SEE UTAH LOW IMPACT DEVELOPMENT
GUIDE (REVISED: AUGUST 2020)
DWQ-2019-000161 (SECTION BR-5
PAGE C-28)



TREE BOX FILTER

From www.wbdg.org



Brett M. Jones
CITY ENGINEER
12/15/2022
DATE

REV.	DATE

SCALE:
N.T.S.

DESIGNED _____
DRAWN _____
CHECKED _____



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GENERAL LID (LOW IMPACT DEVELOPMENT) RECOMMENDATIONS

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