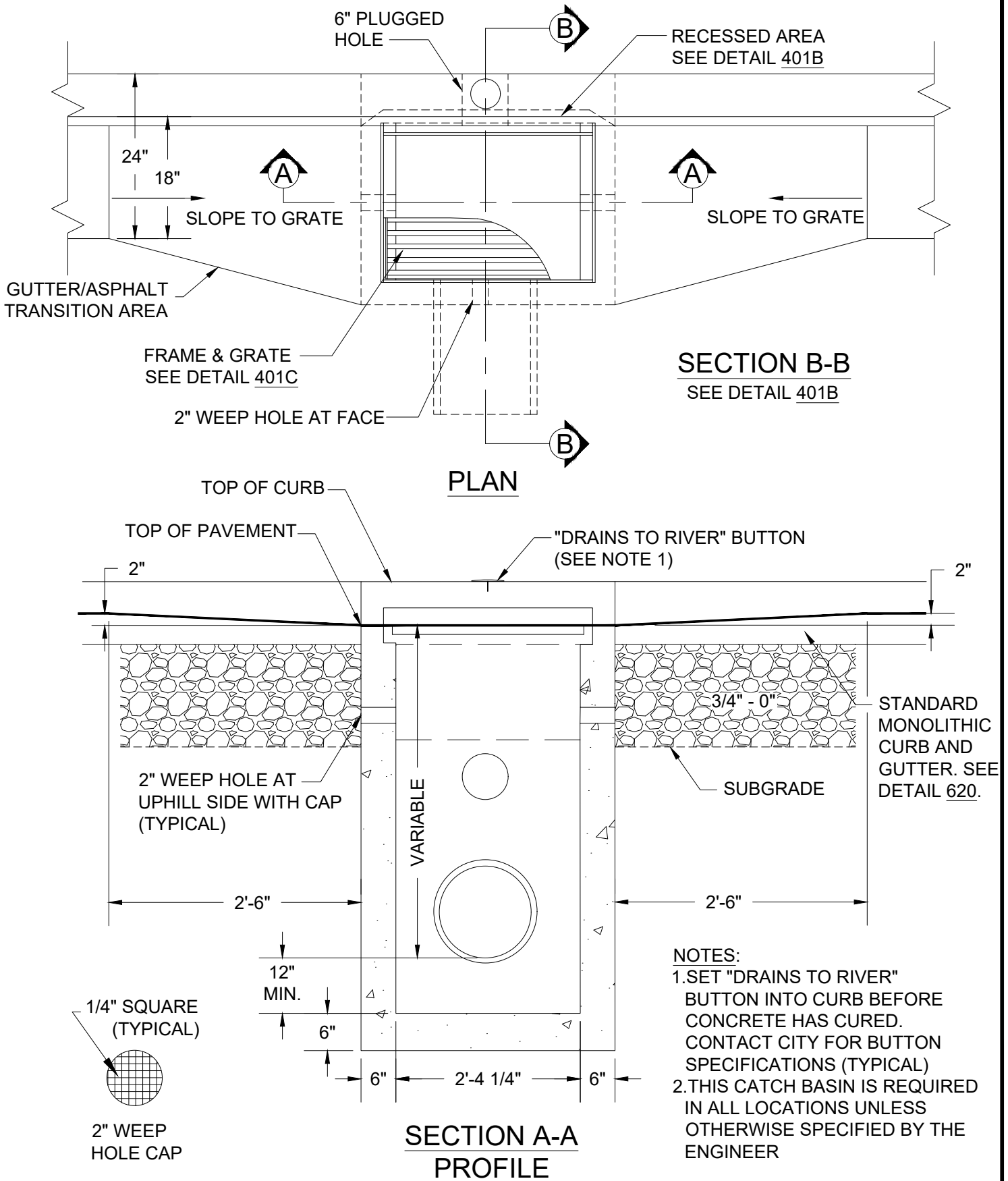


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CITY OF
GRESHAM

CATCH BASIN

PWS VERSION: JAN 2026

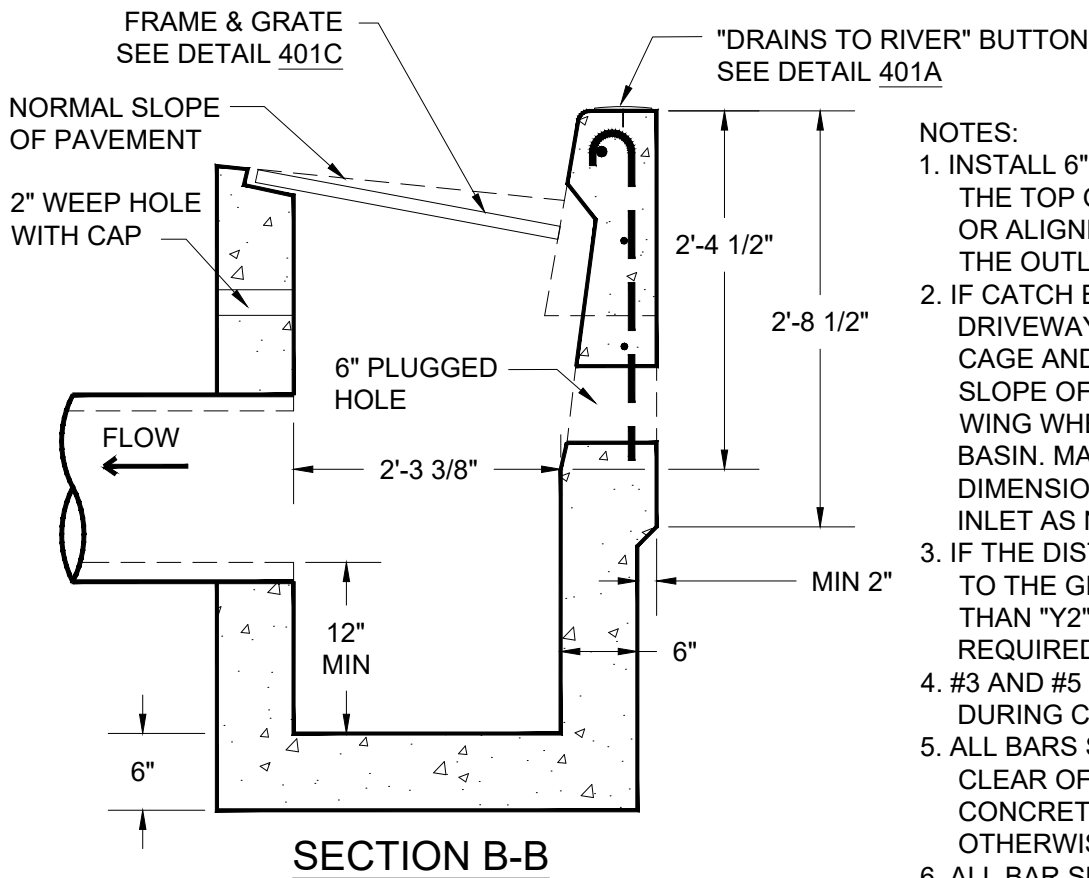
DRAWN CMC

REV. DATE JULY 2025

APPR.

DETAIL NO. 401A

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NOTES:

1. INSTALL 6" DRAIN PIPE SUCH THAT THE TOP OF PIPE IS 6" BELOW GRATE OR ALIGNED WITH THE CROWN OF THE OUTLET, WHICHEVER IS LOWER.
2. IF CATCH BASIN WILL BE PART OF A DRIVEWAY WING, SLANT THE REBAR CAGE AND INLET FORM TO THE SLOPE OF THE TOP OF CURB IN THE WING WHEN POURING THE CATCH BASIN. MAINTAIN THE "Y2" DIMENSION AND DECREASE THE INLET AS NEEDED.
3. IF THE DISTANCE FROM TOP OF CURB TO THE GRATE IS EQUAL TO OR LESS THAN "Y2" NO CURB INLET IS REQUIRED.
4. #3 AND #5 BARS SHALL BE PLACED DURING CURB CONSTRUCTION.
5. ALL BARS SHALL BE PLACED 1 1/2" CLEAR OF NEAREST FACE OF CONCRETE UNLESS SHOWN OR OTHERWISE NOTED.
6. ALL BAR SPLICE LENGTHS SHALL BE A MIN 20".
7. CONCRETE WITH 4,000 PSI STRENGTH AT 28-DAYS SHALL BE USED IN ALL INLET CONSTRUCTION.

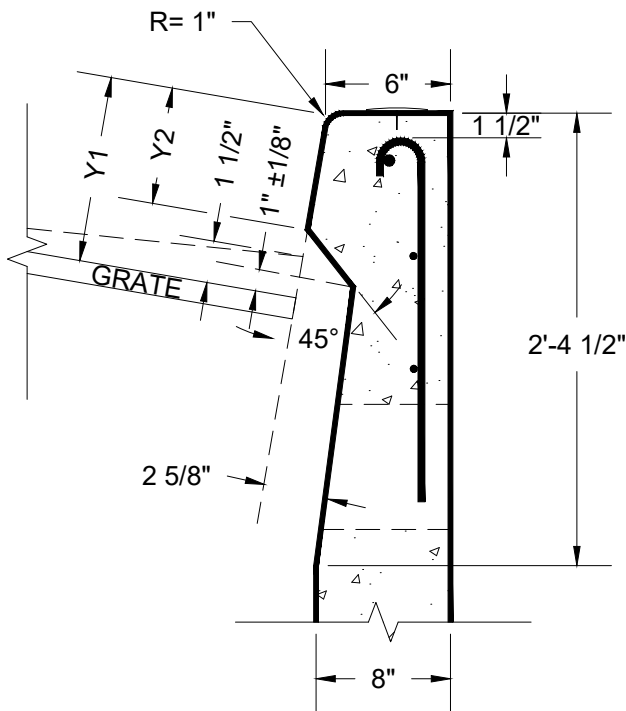
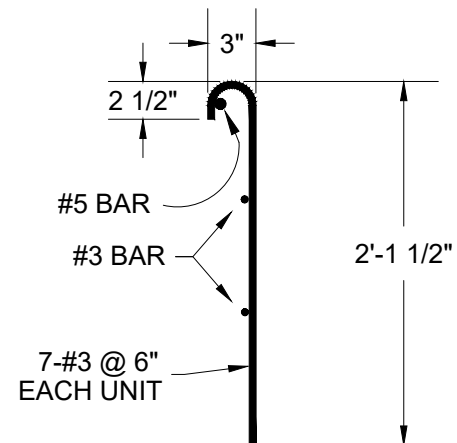


TABLE 601-C	CURB TYPE	
	TYPE 'C'	MONOLITHIC
Y1	8 1/2"	7 1/2"
Y2	5 3/4"±	4 3/4"±



**CITY OF
GRESHAM**

CATCH BASIN SECTION

PWS VERSION: JAN 2026

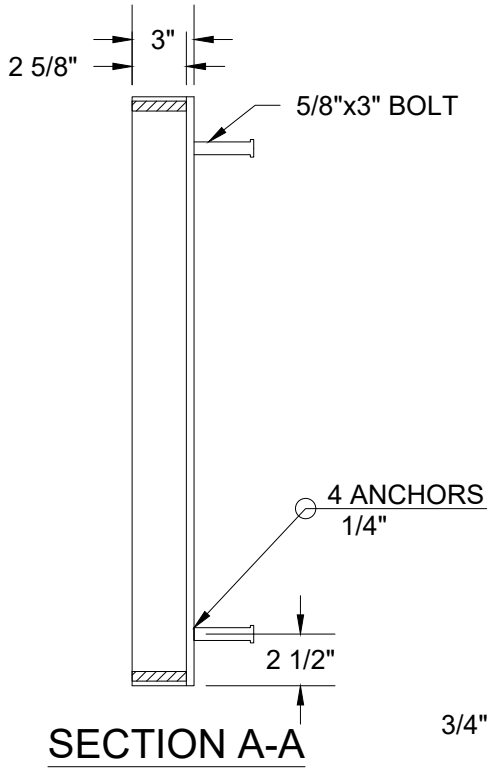
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REV. DATE MAR 2021

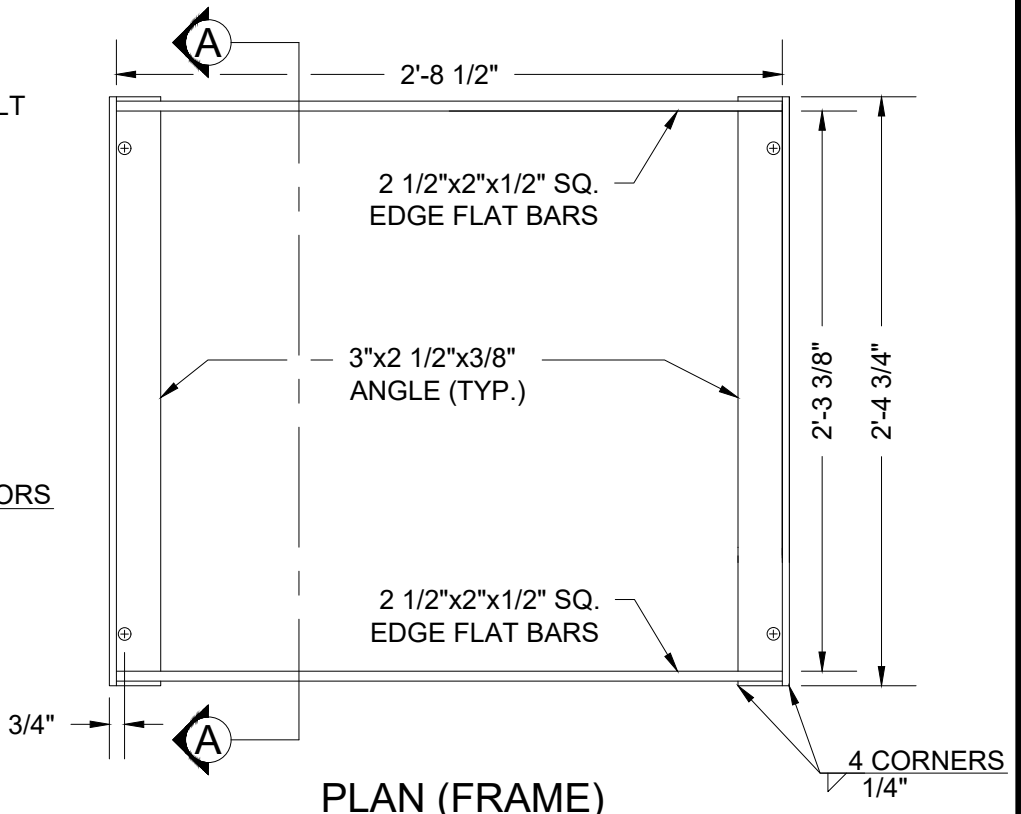
APPR. *[Signature]*

DETAIL NO. 401B

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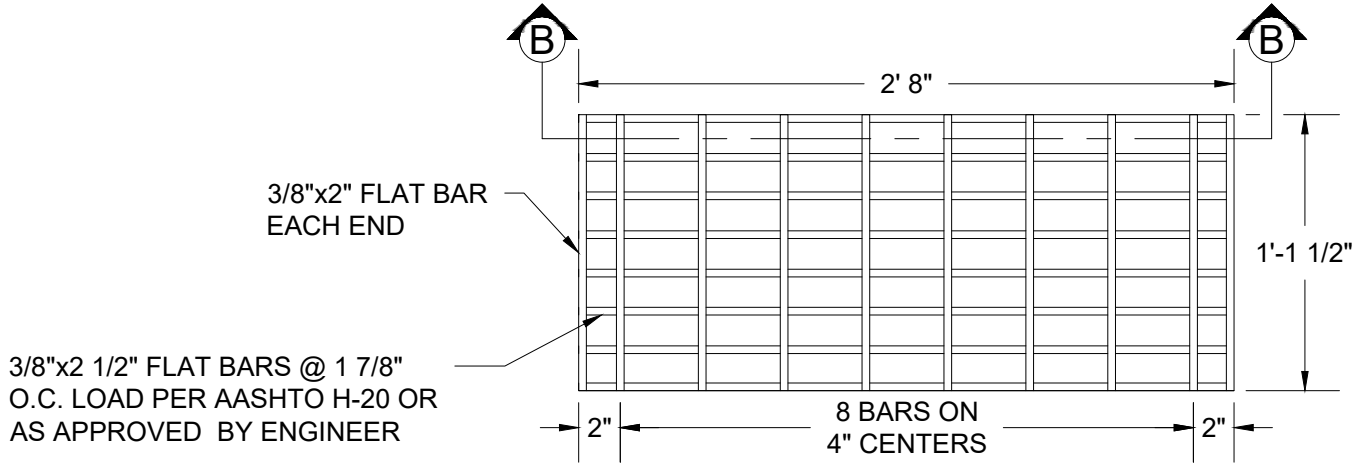


SECTION A-A

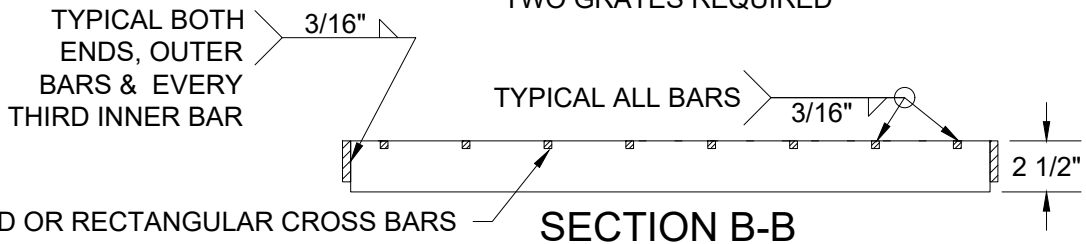


PLAN (FRAME)

NOTE:
USE VERTICAL BEADS IN CORNERS, FILLET
WELD JOINT ON BOTTOM OF FRAME. GRATE
MUST REST FLAT ON FRAME SURFACE.



PLAN (GRATE)
TWO GRATES REQUIRED



SECTION B-B

3/8" ROUND OR RECTANGULAR CROSS BARS
SHALL BE FILLET WELDED, RESISTANCE WELDED
OR ELECTROFORGED TO BEARING BARS

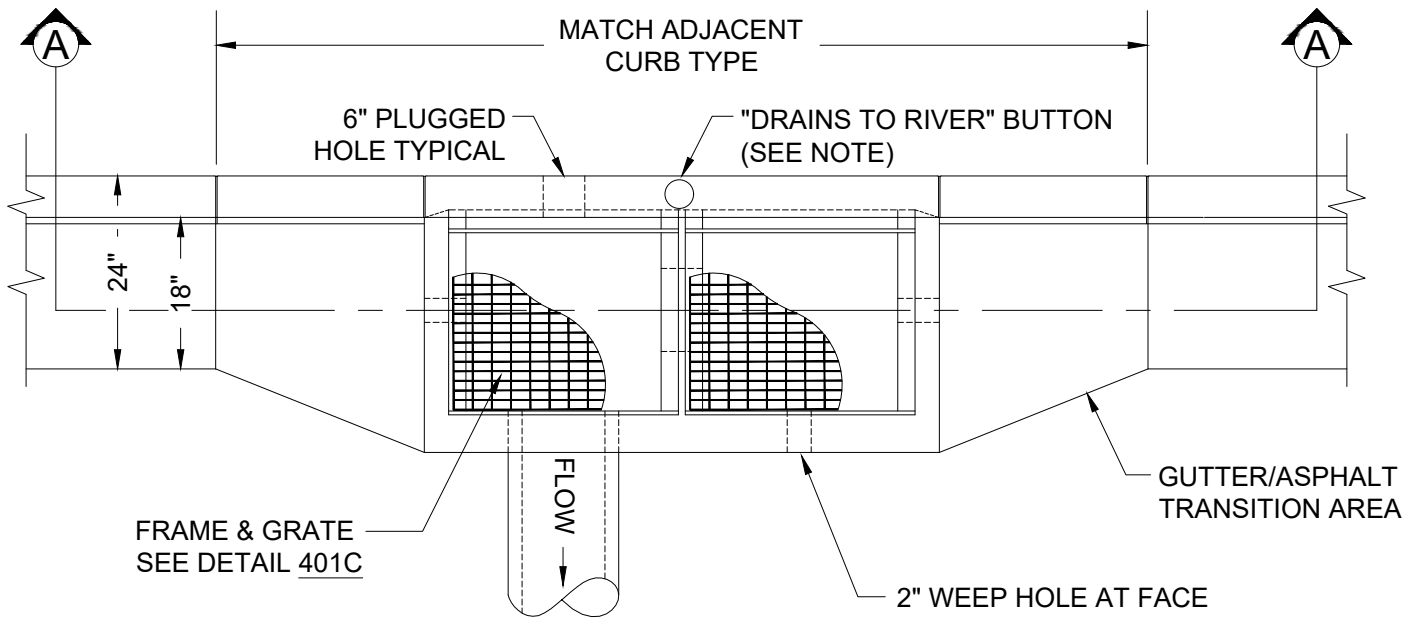
CITY OF
GRESHAM

CATCH BASIN FRAME AND GRATE

PWS VERSION: JAN 2026

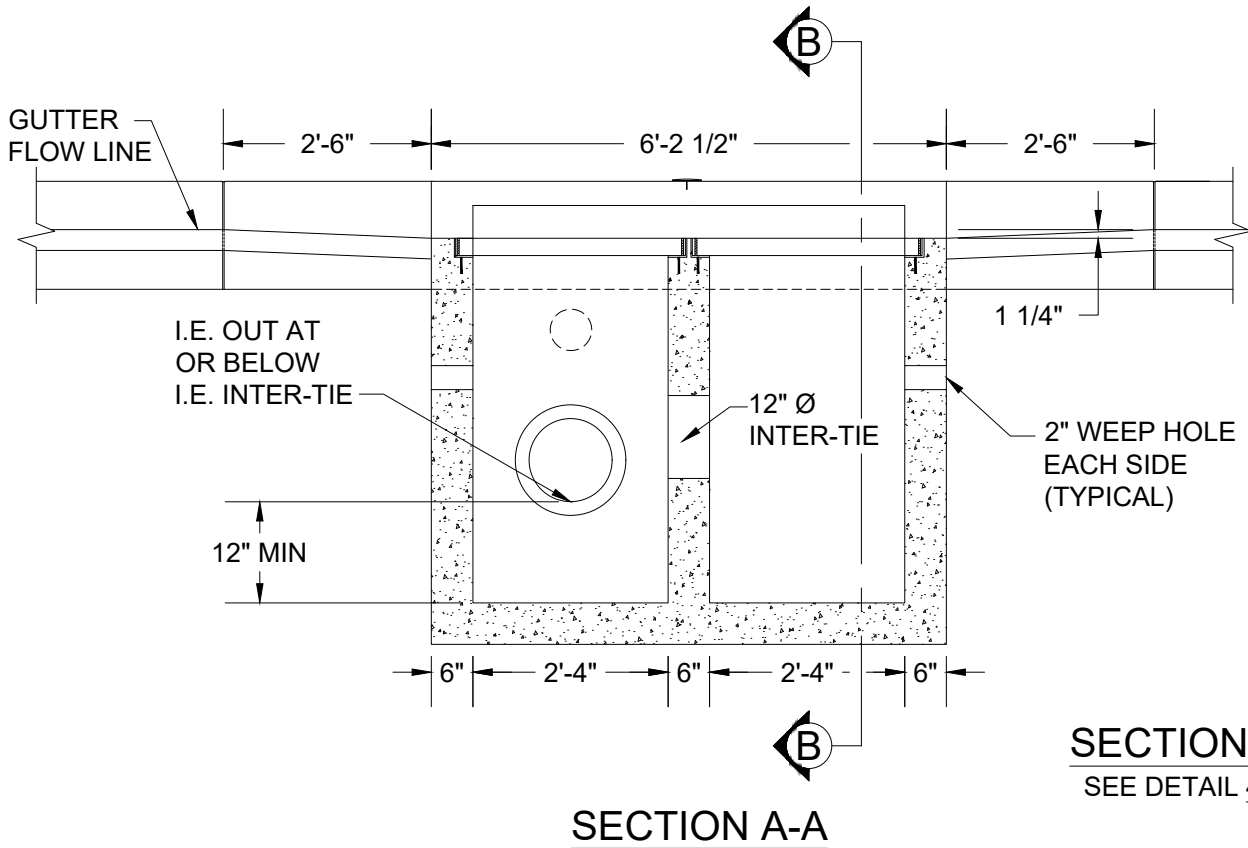
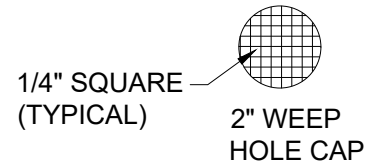
DRAWN	CMC
REV. DATE	JAN 2019
APPR.	
DETAIL NO.	401C

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PLAN

NOTE:
SET "DRAINS TO RIVER" BUTTON INTO CURB BEFORE CONCRETE HAS CURED. CONTACT CITY FOR BUTTON SPECIFICATIONS (TYPICAL)



SECTION B-B
SEE DETAIL 401B

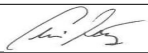
**CITY OF
GRESHAM**

DOUBLE CATCH BASIN

PWS VERSION: JAN 2026

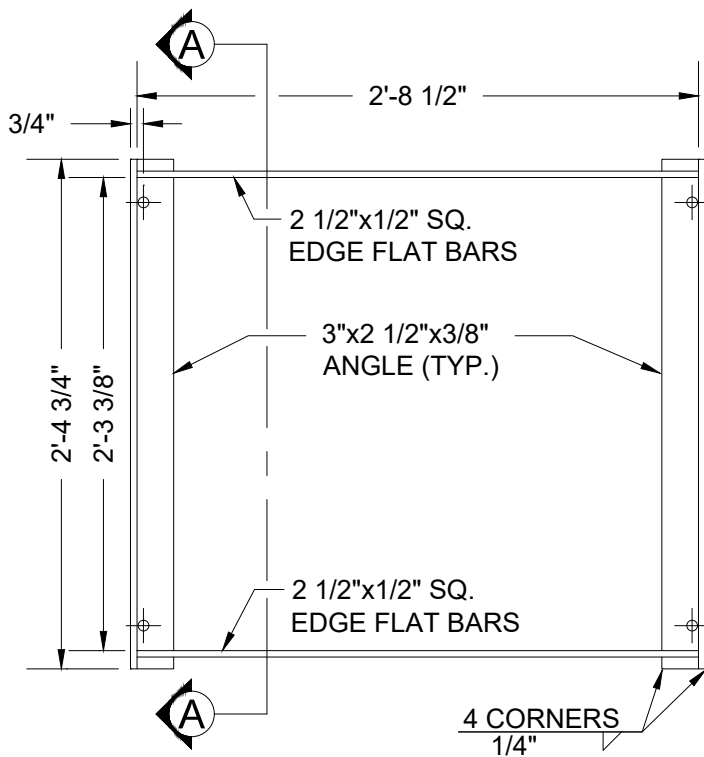
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REV. DATE JULY 2025

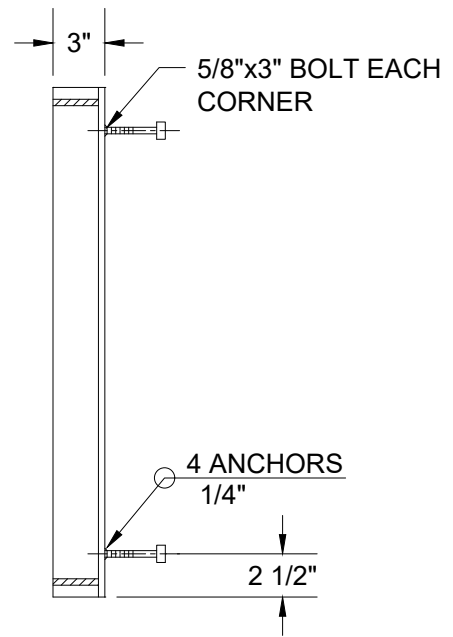
APPR. 

DETAIL NO. 401D

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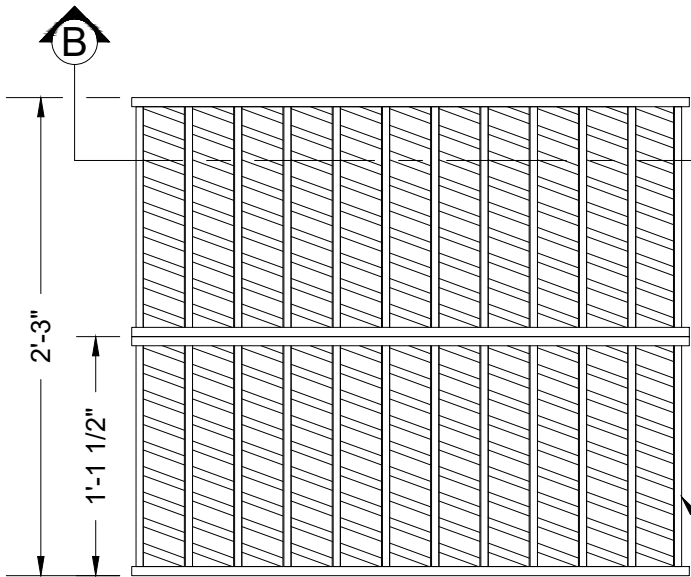
PLAN (FRAME)



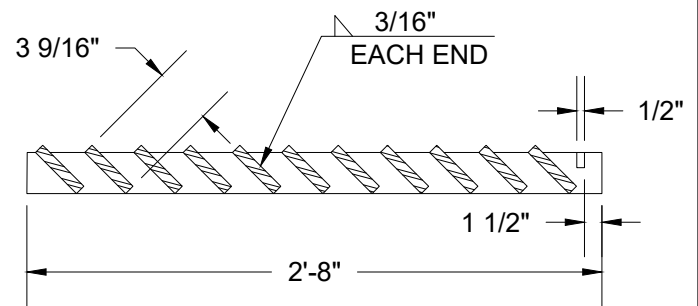
SECTION A-A

NOTE:

USE VERTICAL BEADS IN CORNERS, FILLET WELD JOINT ON BOTTOM OF FRAME. GRATE MUST REST FLAT ON FRAME SURFACE. BAR SIZE PER AASHTO LOAD REQUIREMENTS AND AS APPROVED BY ENGINEER.



PLAN (GRATES)



SECTION B-B

NOTE:

THIS GRATE MAY BE REQUIRED IN HILLSIDE AND GEOLOGIC RISK OVERLAY DISTRICTS OR WHERE STREET SLOPES EXCEED 5 PERCENT GRADE, OR WHERE THE CATCH BASIN FRAME AND GRATE (STANDARD DETAIL 401C) IS NOT CAPABLE OF INTERCEPTING COMPLETELY THE DESIGN STORM FLOW AT THE CURB.

CITY OF
GRESHAM

CATCH BASIN WITH P-45 GRATE

PWS VERSION: JAN 2026

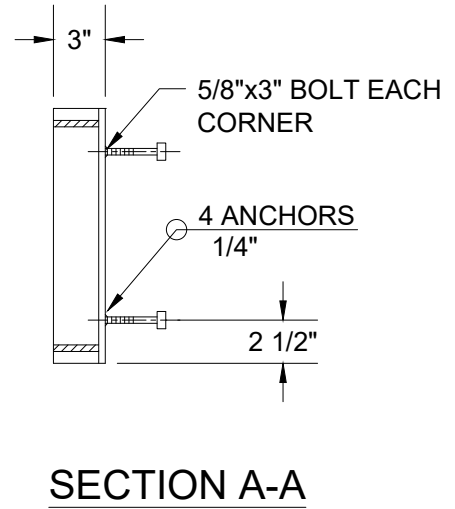
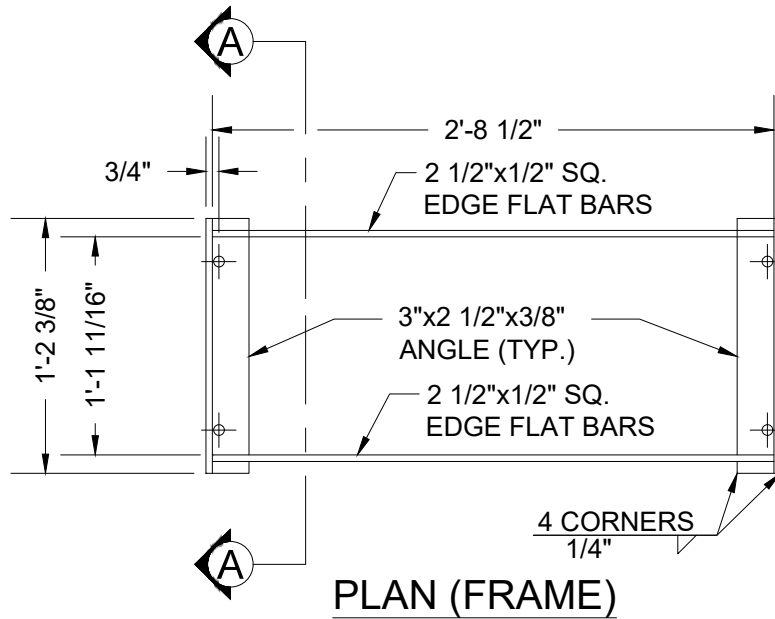
DRAWN CMC

REV. DATE JAN 2024

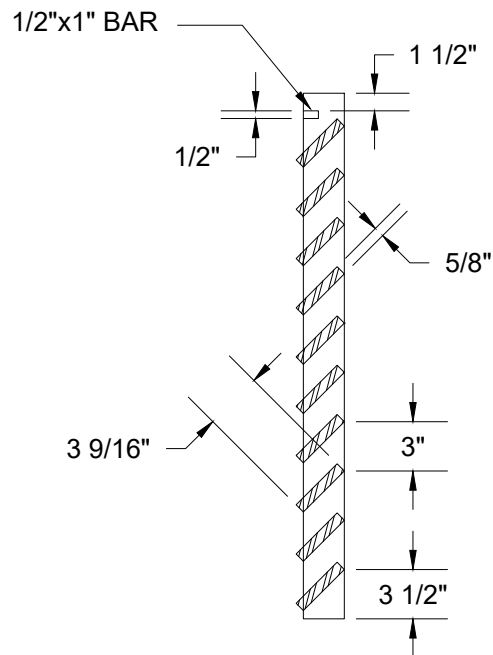
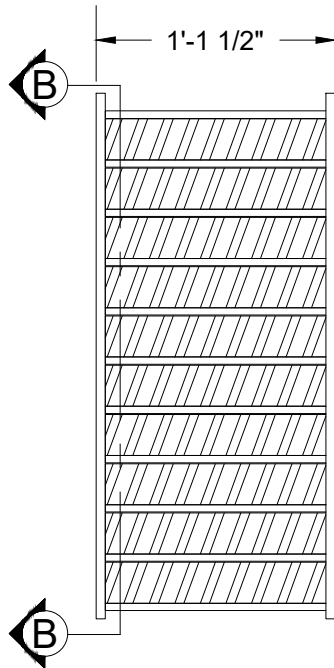
APPR.

DETAIL NO. 401E

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NOTE:
USE VERTICAL BEADS IN CORNERS, FILLET WELD JOINT ON BOTTOM OF FRAME. GRATE MUST REST FLAT ON FRAME SURFACE. BAR SIZE PER AASHTO LOAD REQUIREMENTS AND AS APPROVED BY ENGINEER.



NOTE:
THIS GRATE MAY BE REQUIRED IN HILLSIDE AND GEOLOGIC RISK OVERLAY DISTRICTS OR WHERE STREET SLOPES EXCEED 5 PERCENT GRADE, OR WHERE THE CATCH BASIN FRAME AND GRATE (STANDARD DETAIL 401C) IS NOT CAPABLE OF INTERCEPTING COMPLETELY THE DESIGN STORM FLOW AT THE CURB.

**CITY OF
GRESHAM**

**MODIFIED CATCH BASIN FRAME
WITH SINGLE P-45 GRATE**

PWS VERSION: JAN 2026

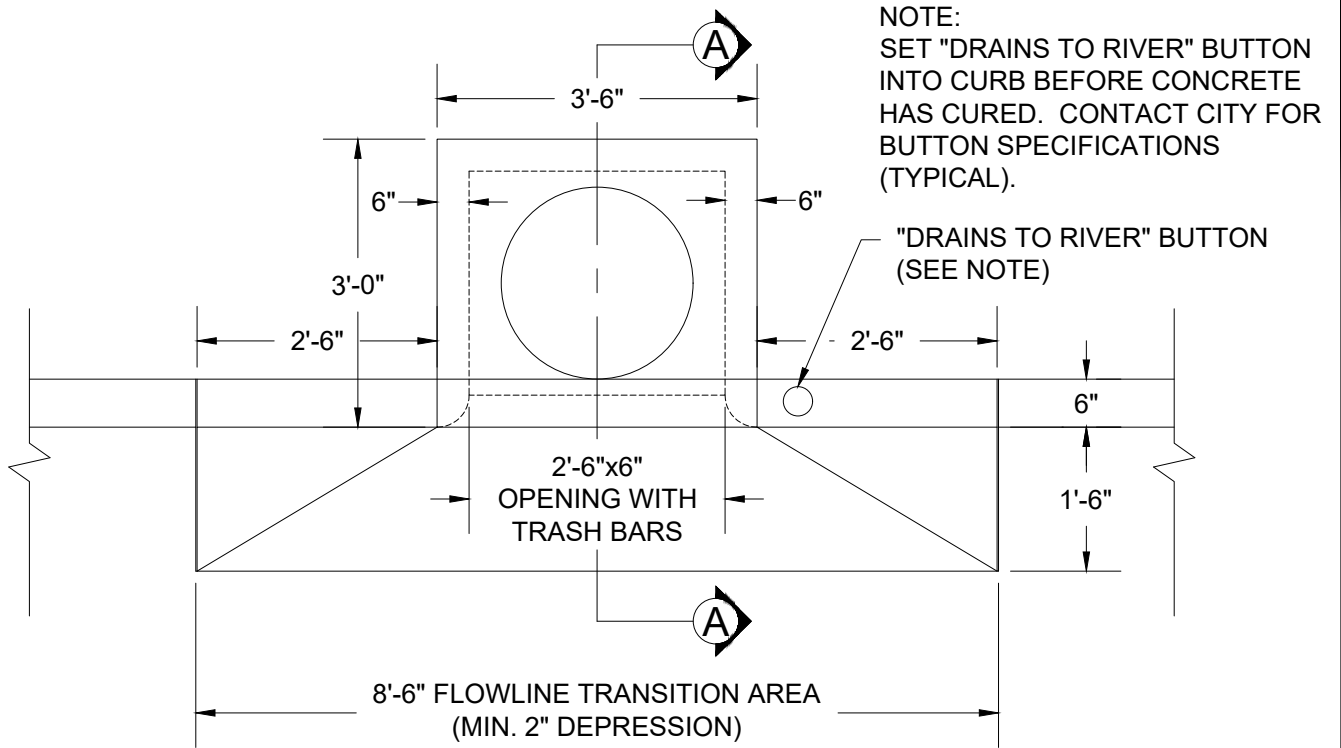
DRAWN CMC

REV. JAN 2024
DATE

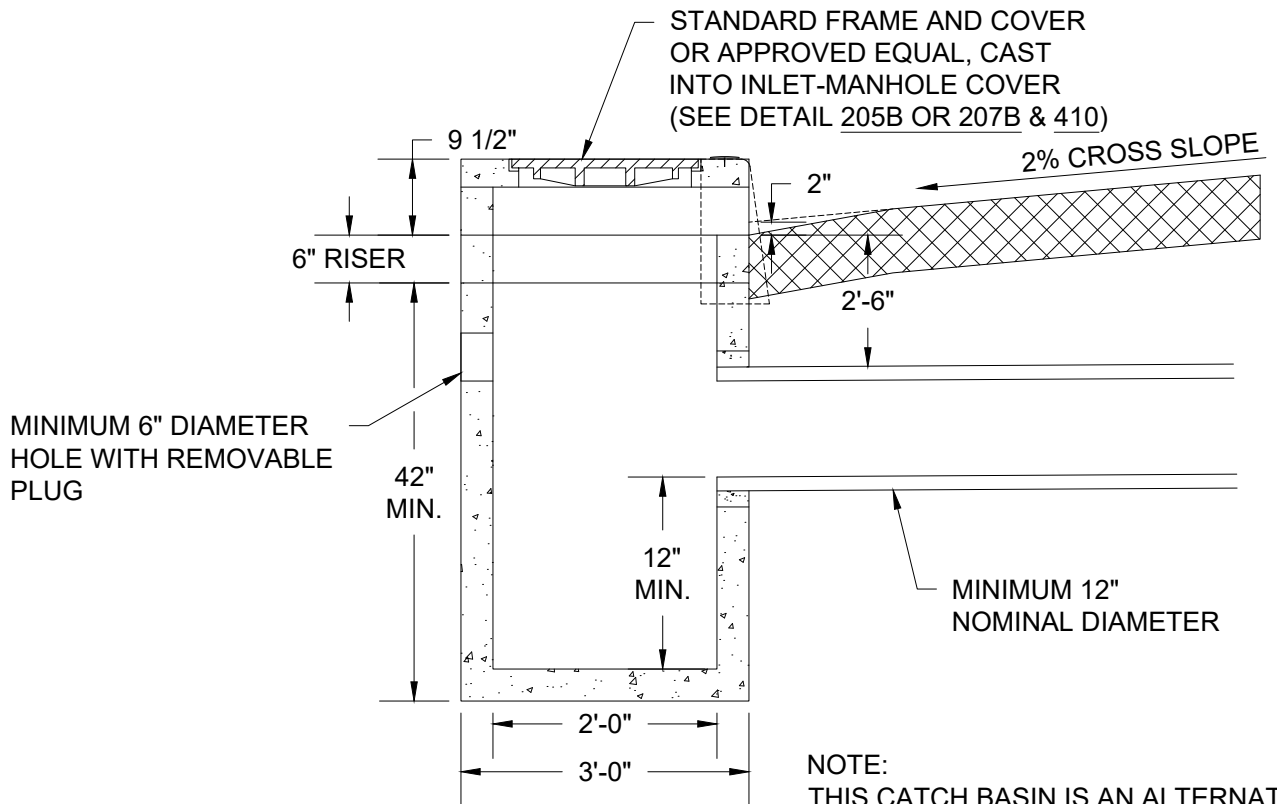
APPR.

DETAIL NO. 401F

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PLAN



SECTION A-A

NOTE:
THIS CATCH BASIN IS AN ALTERNATIVE,
FOR USE IN SPECIAL CIRCUMSTANCES
AS REQUIRED BY THE ENGINEER.

**CITY OF
GRESHAM**

NON-GRATED CATCH BASIN

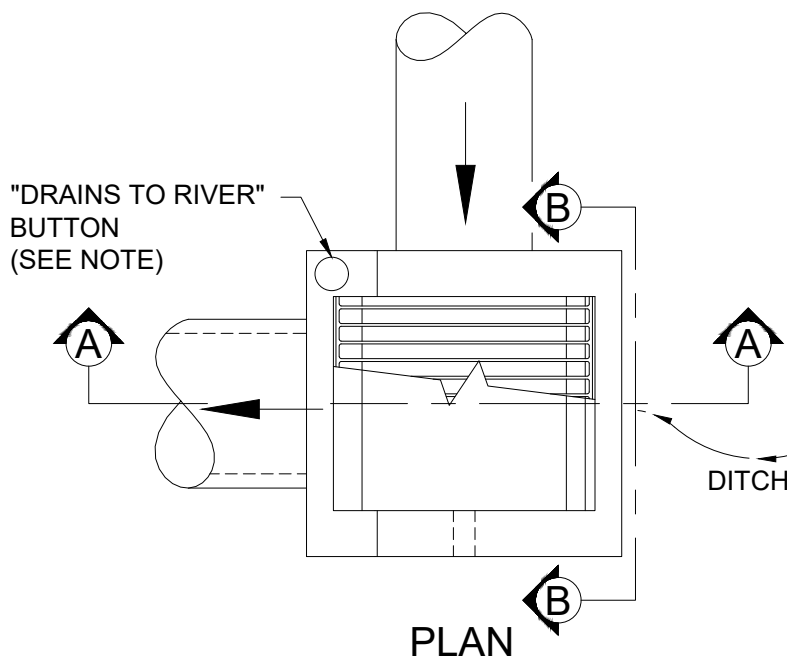
PWS VERSION: JAN 2026

DRAWN CMC

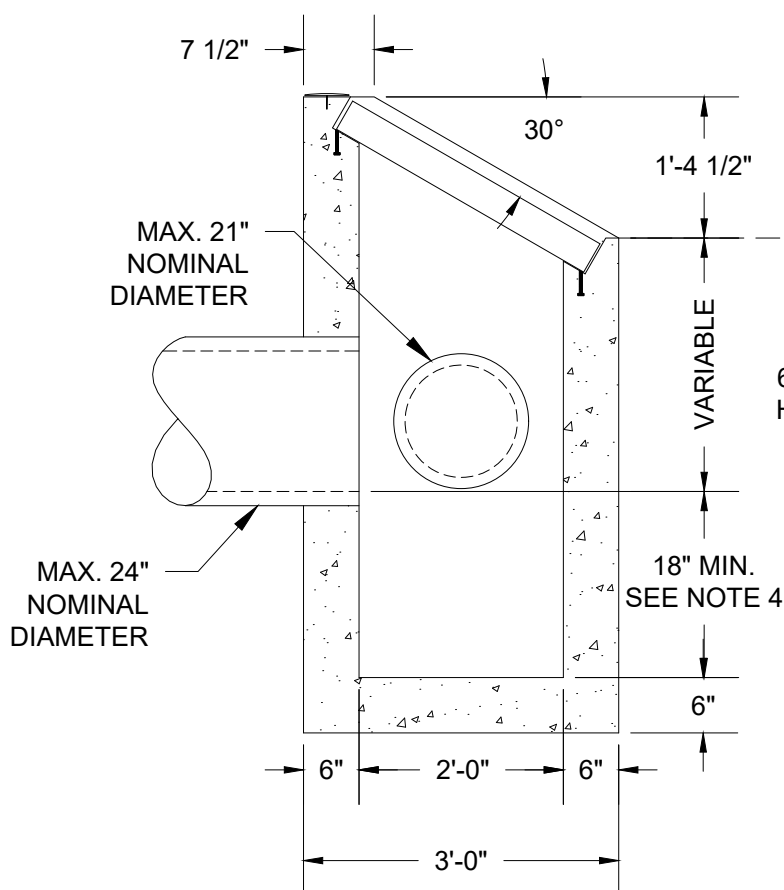
REV. DATE AUG 2025

APPR.

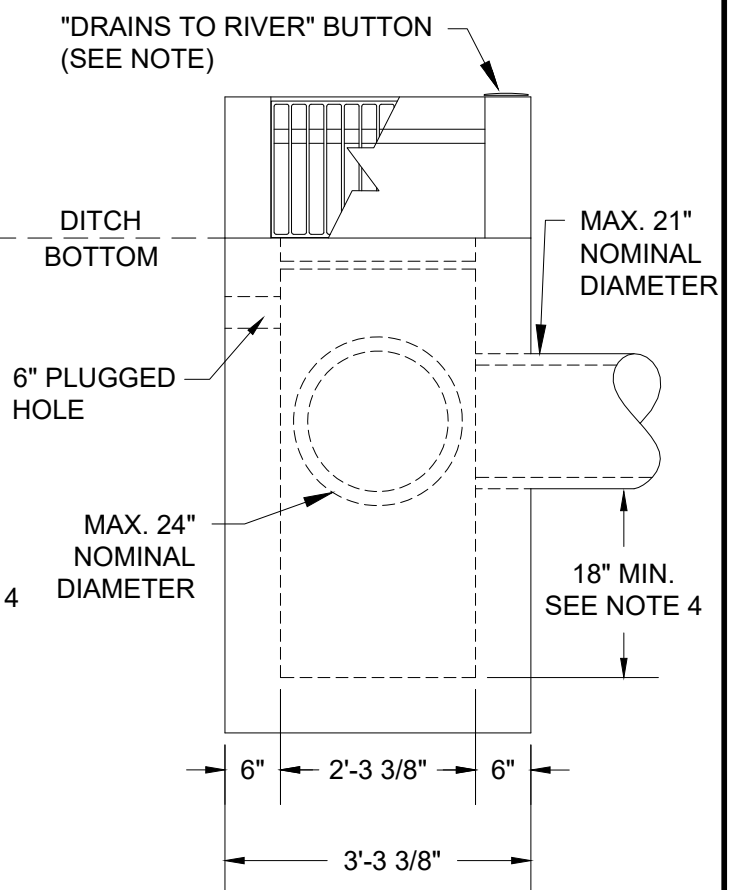
DETAIL NO. 402



NOTE: SET "DRAINS TO RIVER"
BUTTON INTO CURB BEFORE
CONCRETE HAS CURED. CONTACT
CITY FOR BUTTON SPECIFICATIONS
(TYPICAL).

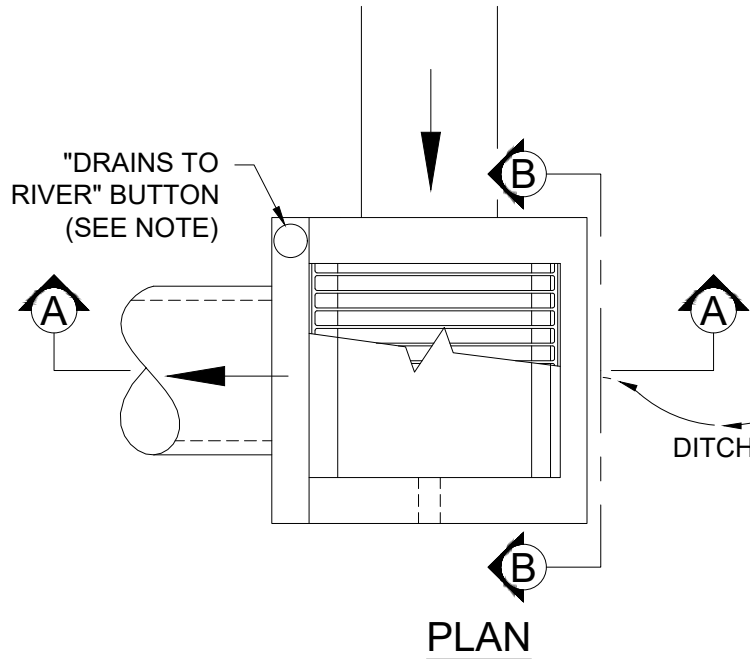


SECTION A-A



SECTION B-B

FILENAME: y:\inter-departmental\development engineering projects\public works standards\20 pws revision copy\details\400_stormwater\storm cad\403b.dwg, Plotted 11/21/2025 8:54 AM, By: Anthony Dollowitch, ANSI FULL BLEED A (8.50 X 11.00 INCHES)

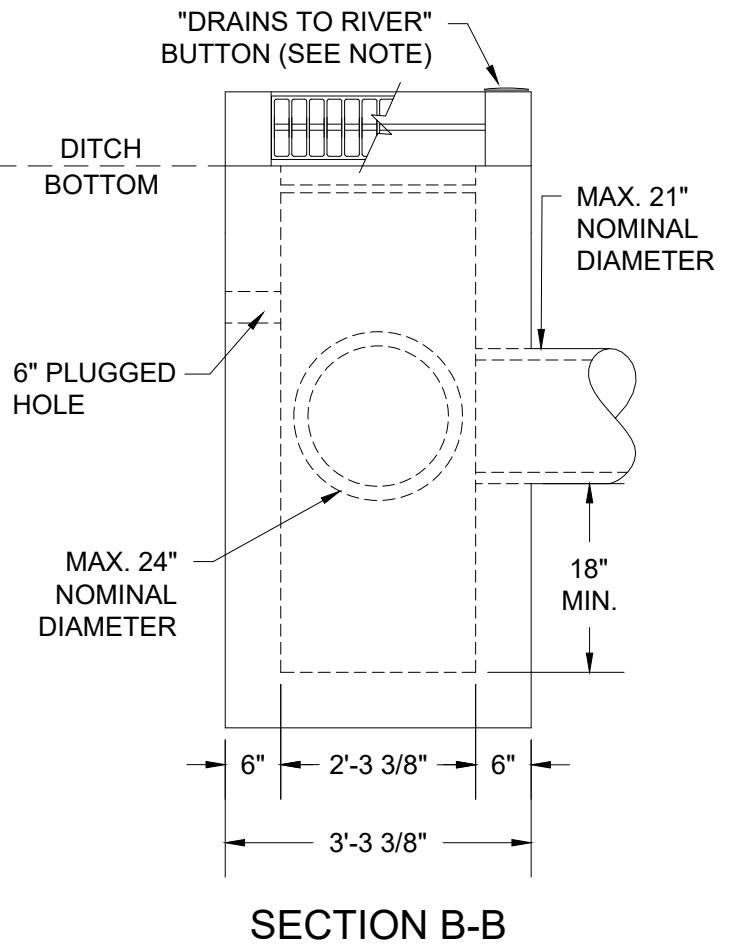
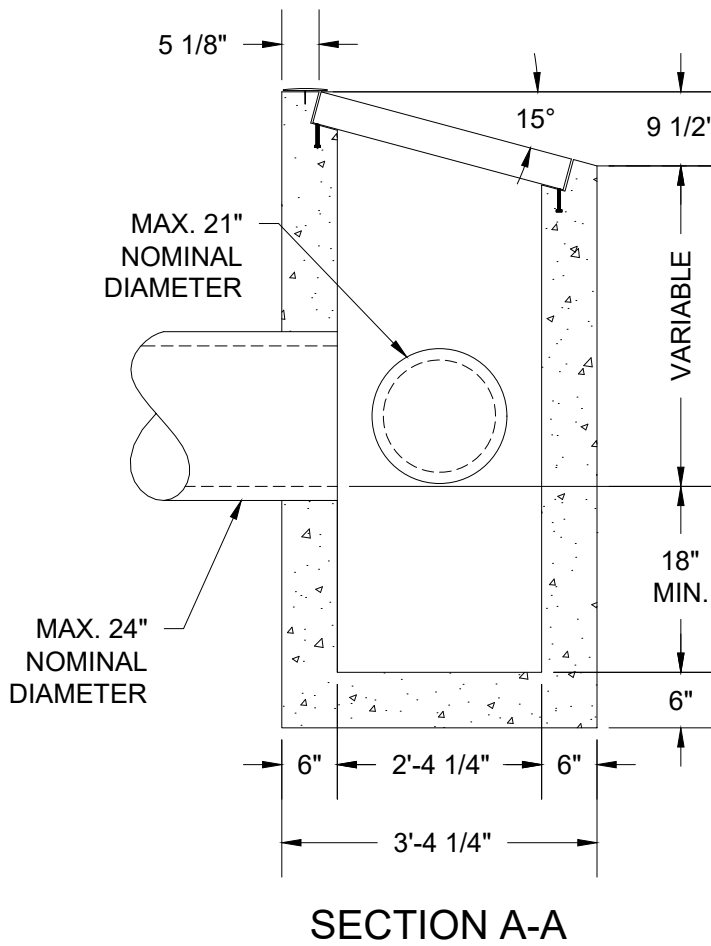


1. CONCRETE SHALL ATTAIN A MINIMUM COMPRESSIVE STRENGTH OF 4,000 P.S.I. IN 28 DAYS

2. FOR FRAME & GRATE DETAIL SEE DETAIL 403C

3. WHERE PRECAST INLETS ARE USED AS AN ALTERNATIVE TO CAST IN PLACE INLETS, A 4" COMPACTED LEVELING BED OF 3/4"-0" CRUSHED AGGREGATE SHALL BE PROVIDED

NOTE: SET "DRAINS TO RIVER" BUTTON INTO CURB BEFORE CONCRETE HAS CURED. CONTACT CITY FOR BUTTON SPECIFICATIONS (TYPICAL).



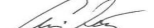
CITY OF
GRESHAM

DITCH INLET
TYPE D - 15°

PWS VERSION: JAN 2026

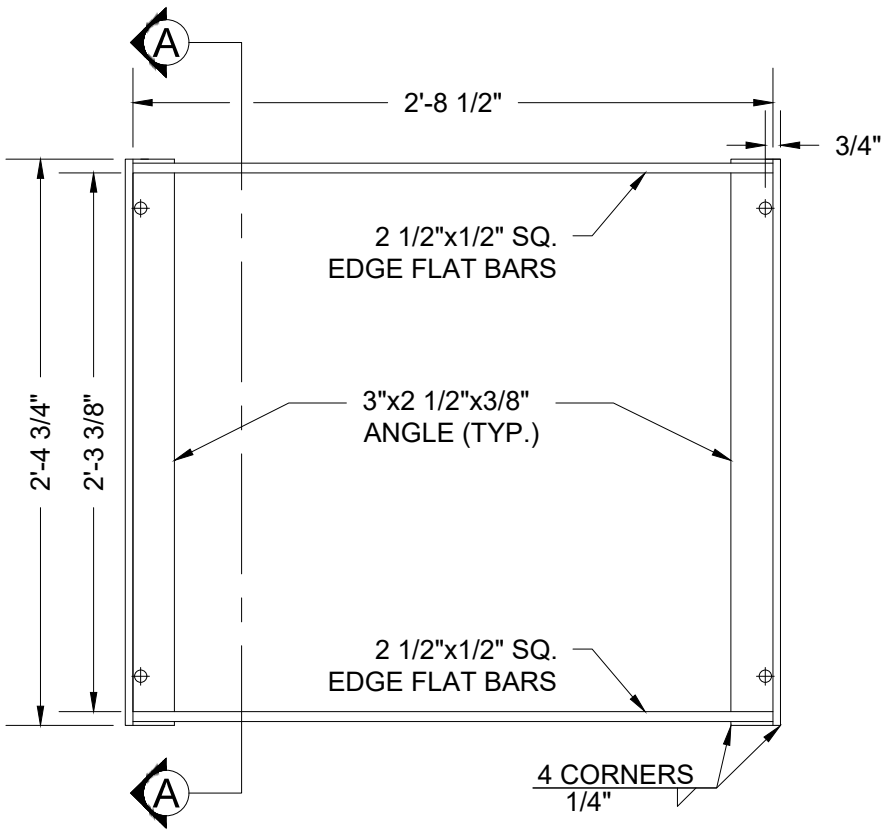
DRAWN CMC

REV. MAR 2021
DATE

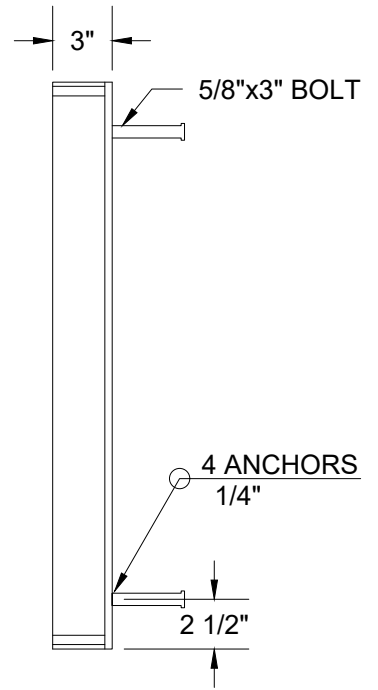
APPR. 

DETAIL NO. 403B

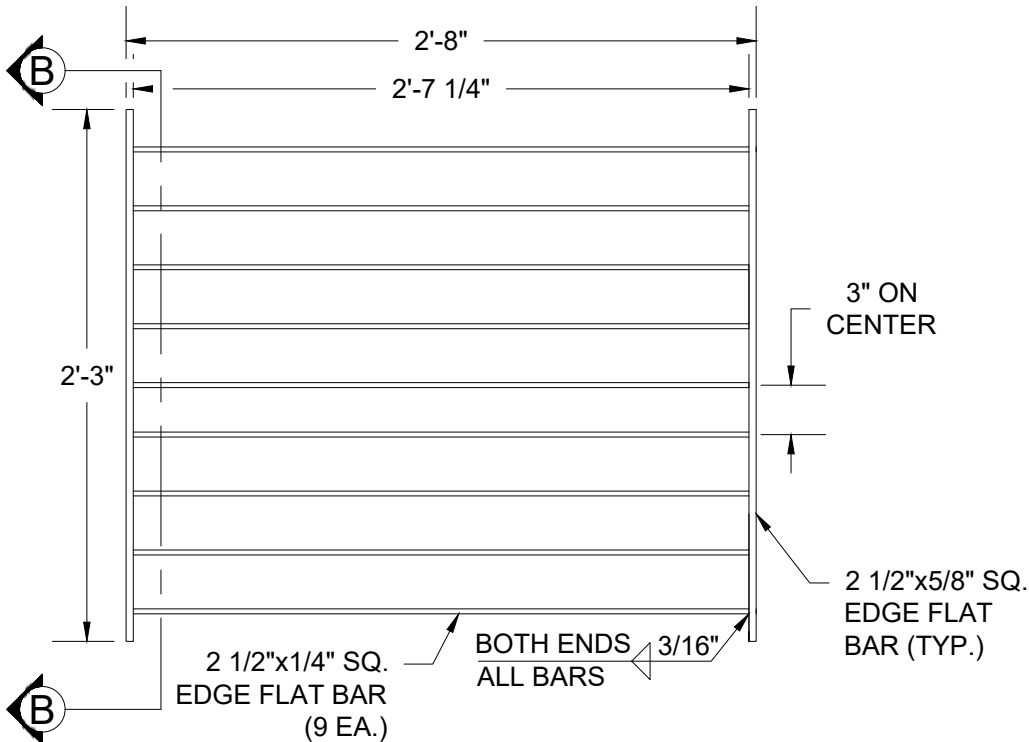
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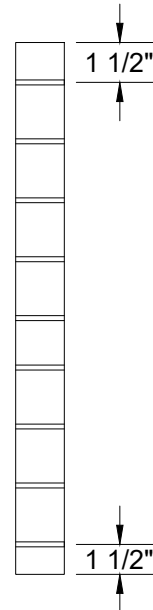
PLAN (FRAME)



SECTION A-A



PLAN (GRATE)



SECTION B-B

1. WHEN INSTALLED AS A POND OUTLET GRATE, HINGE THE TOP OF THE GRATE TO THE FRAME.

CITY OF
GRESHAM

DITCH INLET FRAME AND GRATE

PWS VERSION: JAN 2026

DRAWN CMC

REV. DATE JAN 2020

APPR.

DETAIL NO. 403C

FILENAME: y:\inter-departmental\development engineering projects\public works standards\2.0 pws revision copy\details\400_stormwater\storm cad\404a.dwg, Plotted 11/21/2025 8:54 AM, By: Anthony Dollowitch, ANSI FULL BLEED A (8.50 X 11.00 INCHES)

NOTE:
SET "DRAINS TO RIVER"
BUTTON INTO ADJACENT
CURB BEFORE CONCRETE
HAS CURED. CONTACT CITY
FOR BUTTON SPECIFICATIONS
(TYPICAL)

MIN. 6" DIA. HOLE WITH
REMOVABLE PLUG

STANDARD
MANHOLE STEPS
SEE DETAIL 210

PROFILE

FRAME & COVER
SEE DETAIL 404B

2" WEEP HOLE
BOTH SIDES
(TYPICAL)

COMBINATION CURB INLET
SEE DETAIL 404B

PRECAST 48" FLAT
TOP WITH STANDARD
ROUND OPENING
SEE DETAIL 404B

PRECAST 48" DIA.
MANHOLE SECTION
(1' TO 4' HIGH)

PRECAST 48" DIA.
MANHOLE BASE (2', 3'
OR 4' HIGH) 2' MINIMUM

1" COMPACTED CRUSHED
ROCK 6" MIN. DEPTH, AS
APPROVED BY ENGINEER

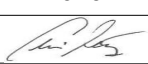
CITY OF
GRESHAM

INLET-MANHOLE STANDARD

PWS VERSION: JAN 2026

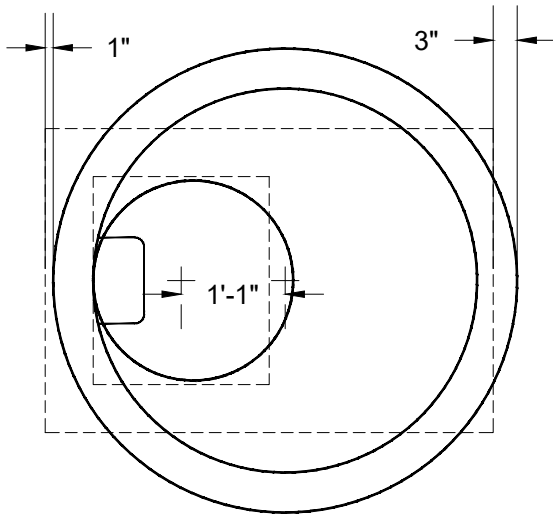
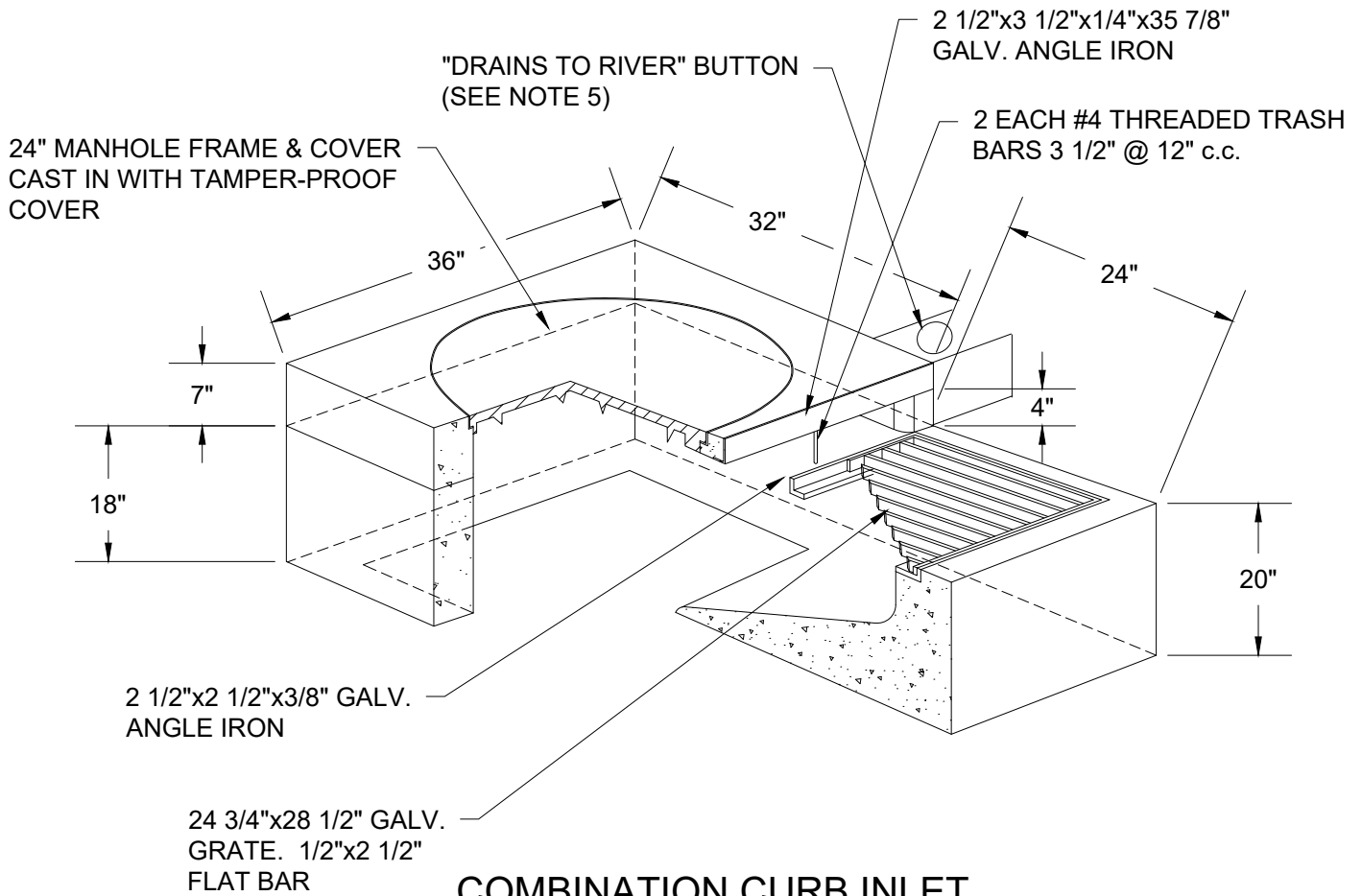
DRAWN CMC

REV. JAN 2019
DATE

APPR. 

DETAIL NO. 404A

FILENAME: y:\inter-departmental\development engineering projects\public works standards\20 pws revision copy\details\400_stormwater\storm cad\404b.dwg, Plotted 11/21/2025 8:54 AM, By: Anthony Dollowitch, ANSI FULL BLEED A (8.50 X 11.00 INCHES)



NOTES:

1. REINFORCING FOR INLET UNIT: 3 EA. #4 HORIZONTAL BARS.
2. REINFORCING FOR TOP UNIT: 2 EA. #3 HORIZONTAL BARS.
3. REINFORCING FOR INLET SLOPED BASE: 4" X 4" MESH.
4. GUTTER IS TAPERED DOWN TO GRATE INLET.
5. SET "DRAINS TO RIVER" BUTTON INTO ADJACENT CURB BEFORE CONCRETE HAS CURED, CONTACT CITY FOR BUTTON SPECIFICATIONS (TYPICAL).

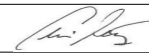
**CITY OF
GRESHAM**

**INLET-MANHOLE
COMBINATION CURB INLET**

PWS VERSION: JAN 2026

DRAWN **CMC**

REV. **JULY 2025**
DATE

APPR. 

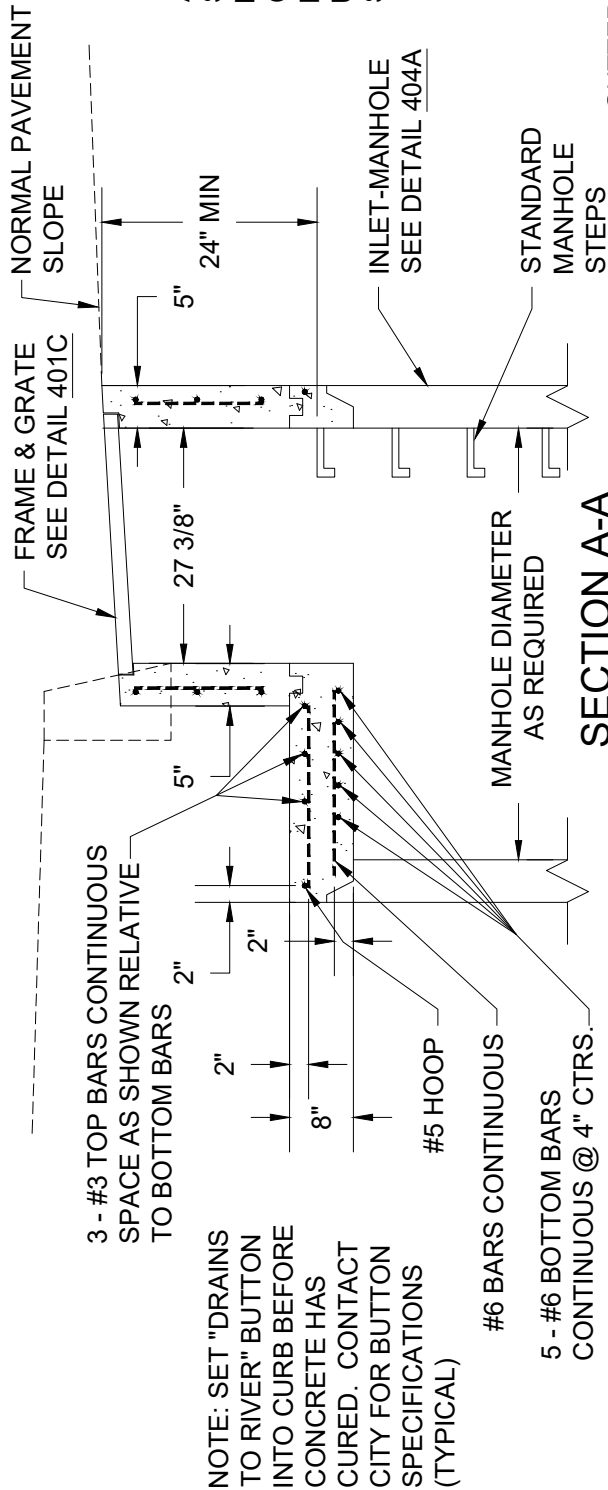
DETAIL NO. **404B**



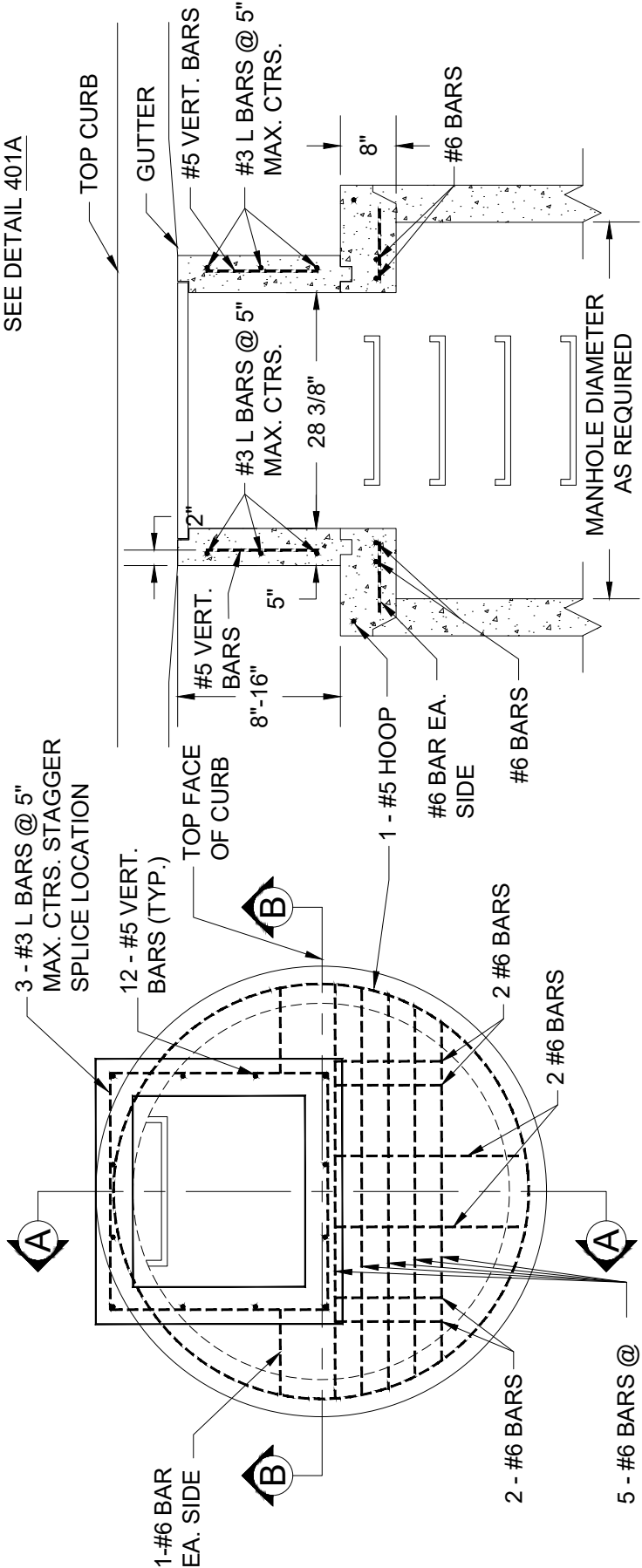
INLET-MANHOLE ALTERNATE TOP

PWS VERSION: JAN 2026

DRAWN	CMC
REV. DATE	JAN 2019
APPR.	
DETAIL NO.	404C



SECTION A-A



SECTION B-B

PLAN

(TOP BARS NOT SHOWN IN PLAN VIEW)

CROSS SECTION

1'-3"

24" MAX.

2'-1"

48" DIA.

5"

24" MIN.

5"

8" FLAT TOP

FIELD FORM AND POUR ADDITIONAL CONCRETE TRANSITION TO FLAT TOP AS REQUIRED

2"

2% CROSS SLOPE

PLAN

NOTES:

1. 48-INCH DIAMETER INLET MANHOLES FOR USE WITH PIPES 27-INCH AND LESSER INSIDE DIAMETER ONLY
2. STANDARD FRAME AND COVER OR APPROVED EQUAL, CAST INTO INLET-MANHOLE COVER SEE DETAIL 205B OR 207B & 410
3. SET "DRAINS TO RIVER" BUTTON INTO CURB BEFORE CONCRETE HAS CURED. CONTACT CITY FOR BUTTON SPECIFICATIONS (TYPICAL).

MANHOLE ASSEMBLY

MANHOLE PLUG

48" DIA. MANHOLE SECTION (HIGH)

STANDARD MANHOLE STEPS (SEE DETAIL 210)

PRE-CAST 48" DIA. MANHOLE BASE (2', 3' OR 4' HIGH) 2' MINIMUM

SECTION A-A

CITY OF
GRESHAM

NON-GRATED INLET-MANHOLE (A)

PWS VERSION: JAN 2026

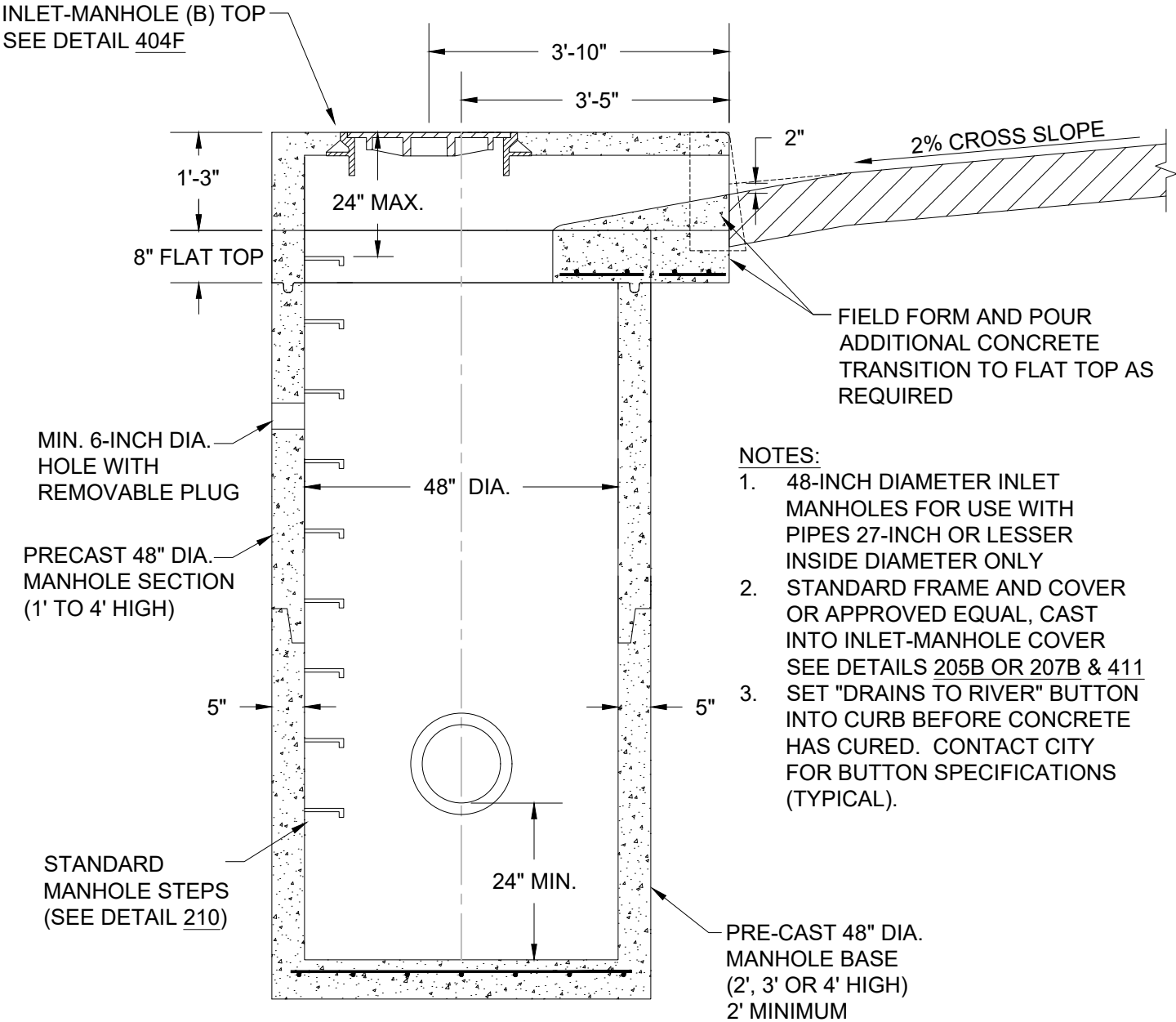
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REV. DATE **AUG 2025**

APPR.

DETAIL NO. 404D

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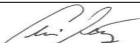
- NOTES:
1. 48-INCH DIAMETER INLET MANHOLES FOR USE WITH PIPES 27-INCH OR LESSER INSIDE DIAMETER ONLY
 2. STANDARD FRAME AND COVER OR APPROVED EQUAL, CAST INTO INLET-MANHOLE COVER SEE DETAILS 205B OR 207B & 411
 3. SET "DRAINS TO RIVER" BUTTON INTO CURB BEFORE CONCRETE HAS CURED. CONTACT CITY FOR BUTTON SPECIFICATIONS (TYPICAL).

PROFILE

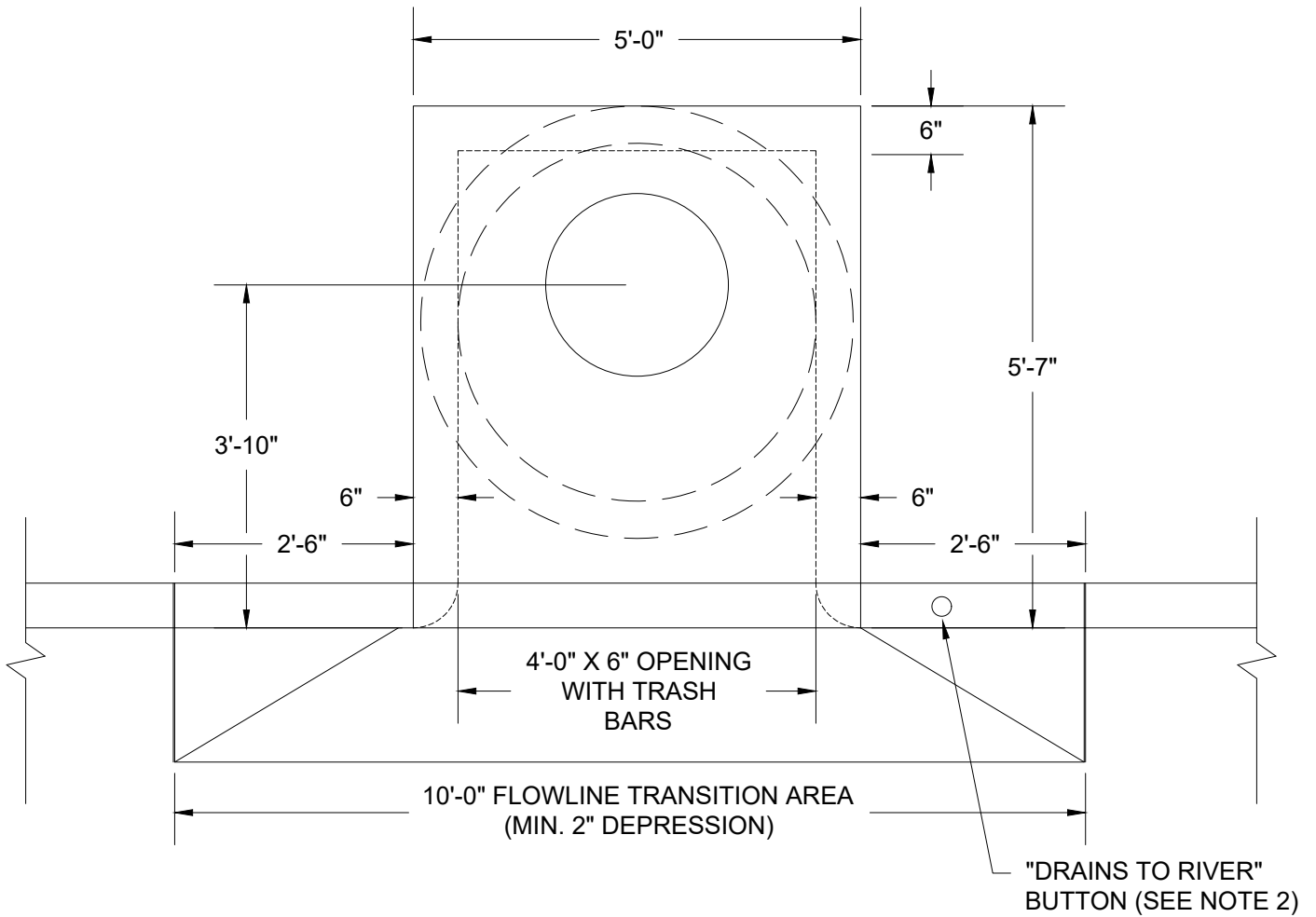
CITY OF
GRESHAM

NON-GRATED INLET-MANHOLE (B)

PWS VERSION: JAN 2026

DRAWN	CMC
REV. DATE	AUG 2025
APPR.	
DETAIL NO.	404E

FILENAME: y:\inter-departmental\development engineering projects\public works standards\20 pws revision copy\details\400_stormwater\storm cad\404f.dwg, Plotted 11/21/2025 8:54 AM, By: Anthony Dollowitch, ANSI FULL BLEED A (8.50 X 11.00 INCHES)



NOTES:

1. STANDARD FRAME AND COVER OR APPROVED EQUAL, CAST INTO INLET-MANHOLE TOP. SEE DETAILS 205B OR 207B & 411
2. SET "DRAINS TO RIVER" BUTTON INTO CURB BEFORE CONCRETE HAS CURED. CONTACT CITY FOR BUTTON SPECIFICATIONS (TYPICAL).

**CITY OF
GRESHAM**

NON-GRATED INLET-MANHOLE (B) TOP

PWS VERSION: JAN 2026

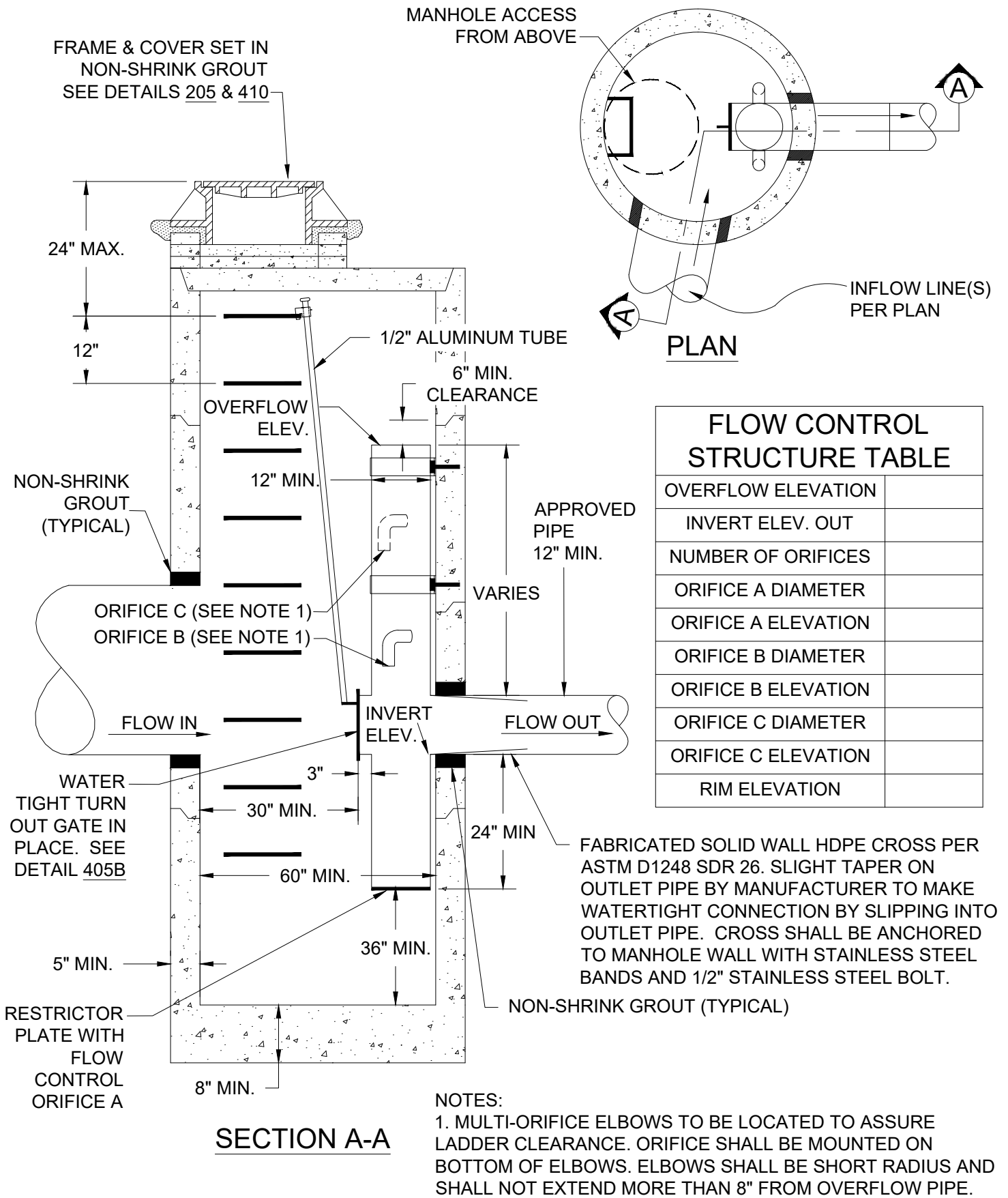
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REV. DATE AUG 2025

APPR.

DETAIL NO. 404F

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CITY OF
GRESHAM

FLOW CONTROL MANHOLE

PWS VERSION: JAN 2026

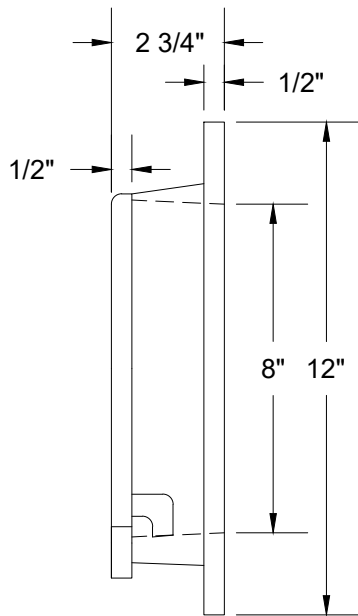
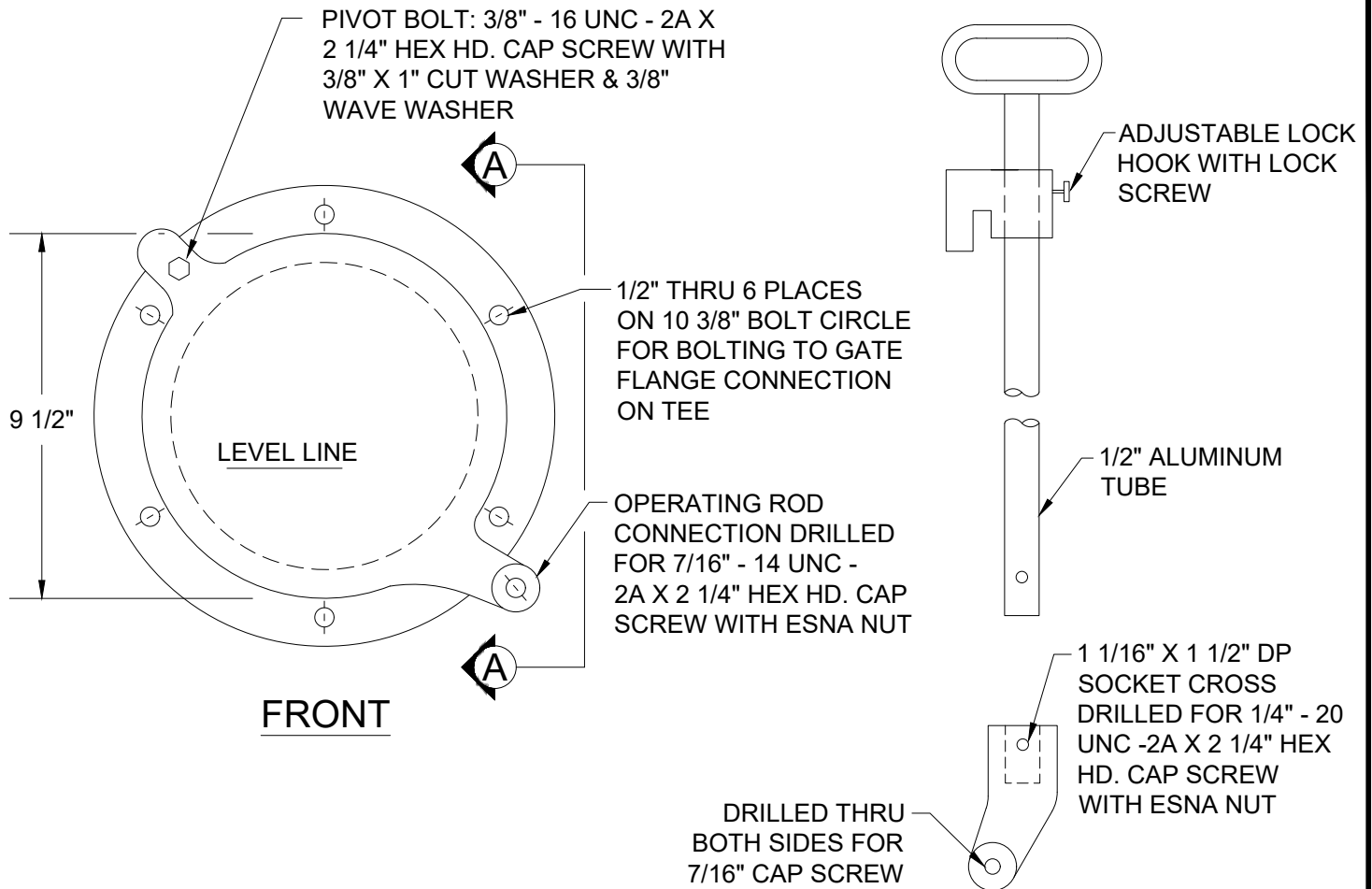
DRAWN TH

REV. DATE OCT 2025

APPR.

DETAIL NO. 405A

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SECTION A-A

NOTES:

1. MATERIAL: CAST ALUMINUM ALLOY PER ASTM B26M
2. ALL FASTENERS SHALL BE STAINLESS STEEL
3. INSTALLER SHOULD CONSULT INSTRUCTION NOTES FURNISHED WITH SHEAR GATES
4. A NEOPRENE RUBBER GASKET IS REQUIRED BETWEEN THE RISER MOUNTING FLANGE AND THE GATE FLANGE
5. INSTALL SHEAR GATE WITH THE LEVEL-LINE MARKING ON A TRUE HORIZONTAL PLANE WHEN THE GATE IS IN A CLOSED POSITION

**LIFT HANDLE
AND ADAPTER**

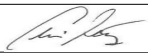
**CITY OF
GRESHAM**

**8\" SHEAR GATE
AND LIFT HANDLE**

PWS VERSION: JAN 2026

DRAWN **CMC**

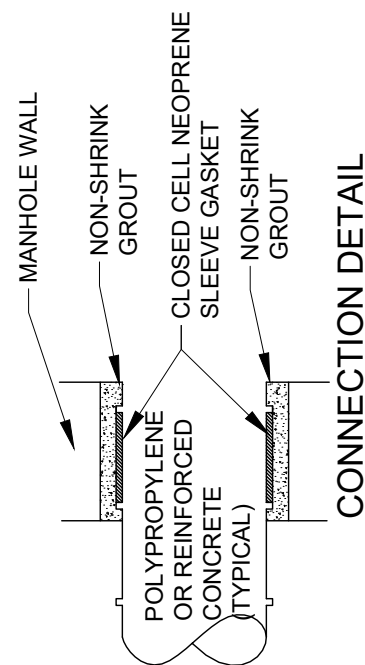
REV. **JAN 2019**
DATE

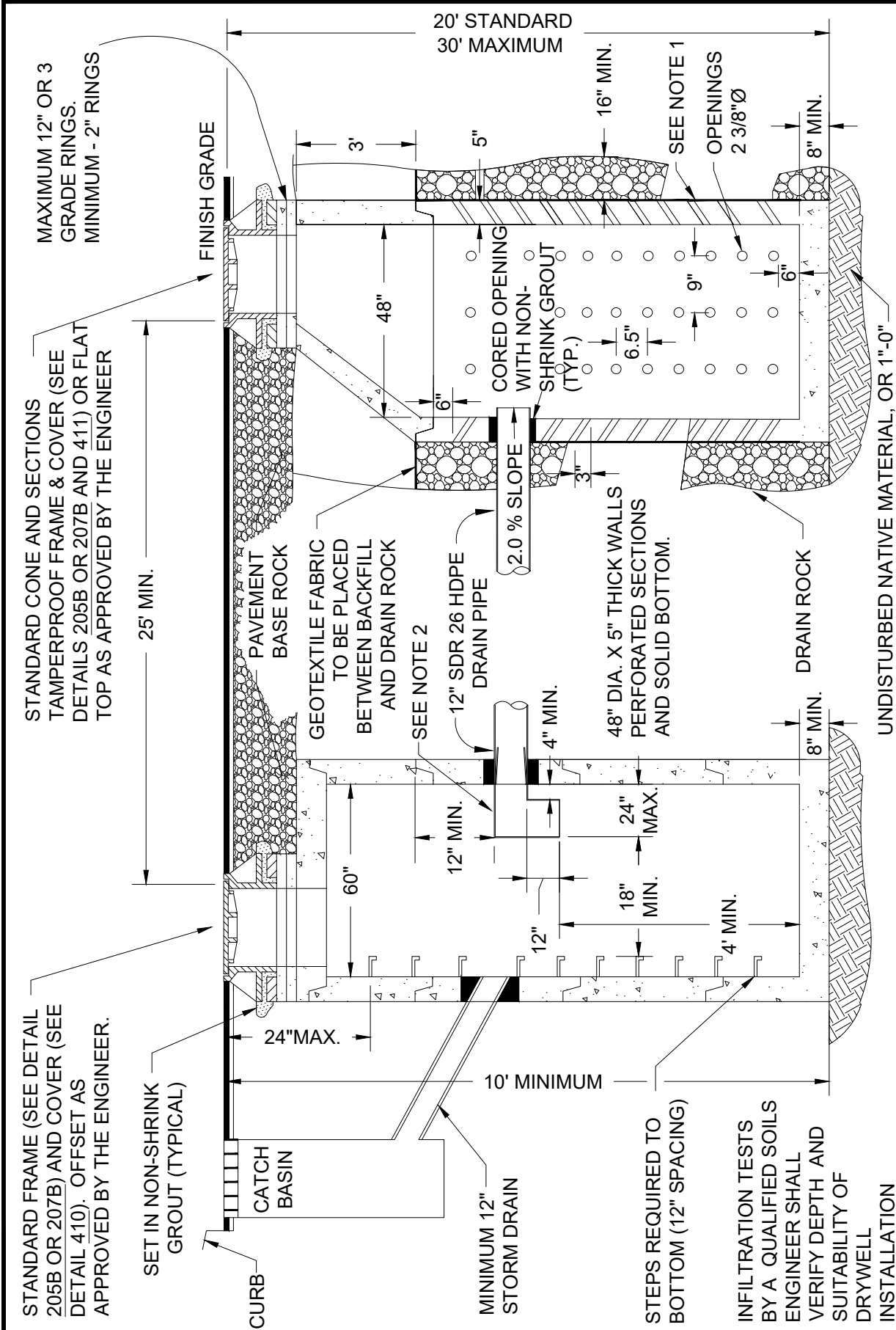
APPR. 

DETAIL NO. **405B**

DETENTION PIPE TYPICAL CLOSED

DETAIL NO. 406





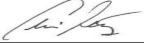
NOTES:

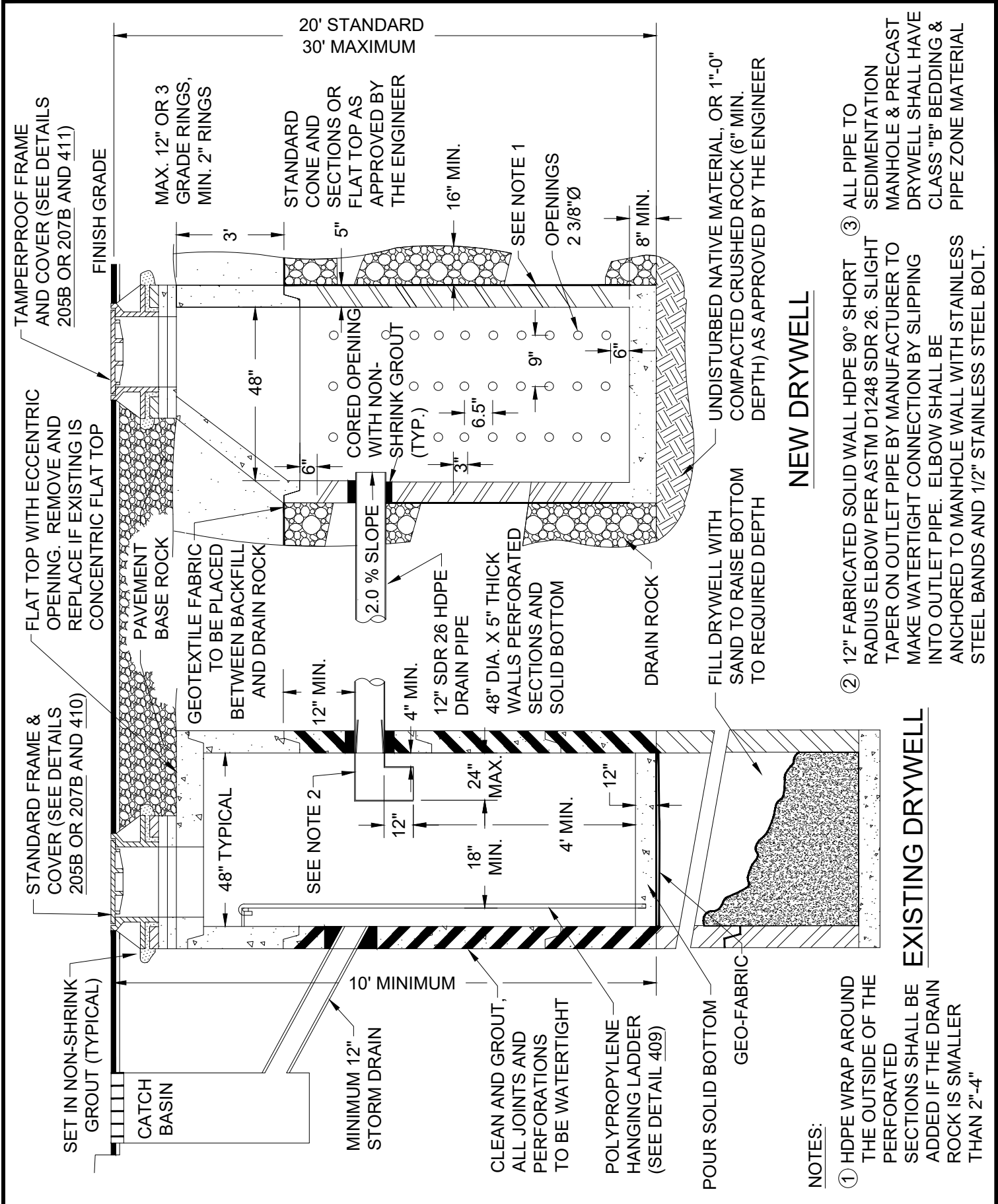
- ① HDPE WRAP AROUND THE OUTSIDE OF THE PERFORATED SECTIONS SHALL BE ADDED IF THE DRAIN ROCK IS SMALLER THAN 2'-4".
- ② 12" FABRICATED SOLID WALL HDPE 90° SHORT RADIUS ELBOW PER ASTM D1248 SDR 26. SLIGHT TAPER ON OUTLET PIPE BY MANUFACTURER TO MAKE WATERTIGHT CONNECTION BY SLIPPING INTO OUTLET PIPE. ELBOW SHALL BE ANCHORED TO MANHOLE WALL WITH STAINLESS STEEL BANDS AND 1/2" STAINLESS STEEL BOLT.
- ③ ALL PIPE TO SEDIMENTATION MANHOLE & PRECAST DRYWELL SHALL HAVE CLASS "B" BEDDING & PIPE ZONE MATERIAL.

CITY OF
GRESHAM

DRYWELL SYSTEM

PWS VERSION: JAN 2026

DRAWN	CMC
REV. DATE	AUG 2025
APPR.	
DETAIL NO.	407



NOTES:

- ① HDPE WRAP AROUND THE OUTSIDE OF THE PERFORATED SECTIONS SHALL BE ADDED IF THE DRAIN ROCK IS SMALLER THAN 2"-4"
- ② 12" FABRICATED SOLID WALL HDPE 90° SHORT RADIUS ELBOW PER ASTM D1248 SDR 26. SLIGHT TAPER ON OUTLET PIPE BY MANUFACTURER TO MAKE WATERTIGHT CONNECTION BY SLIPPING INTO OUTLET PIPE. ELBOW SHALL BE ANCHORED TO MANHOLE WALL WITH STAINLESS STEEL BANDS AND 1/2" STAINLESS STEEL BOLT.
- ③ ALL PIPE TO SEDIMENTATION MANHOLE & PRECAST DRYWELL SHALL HAVE CLASS "B" BEDDING & PIPE ZONE MATERIAL

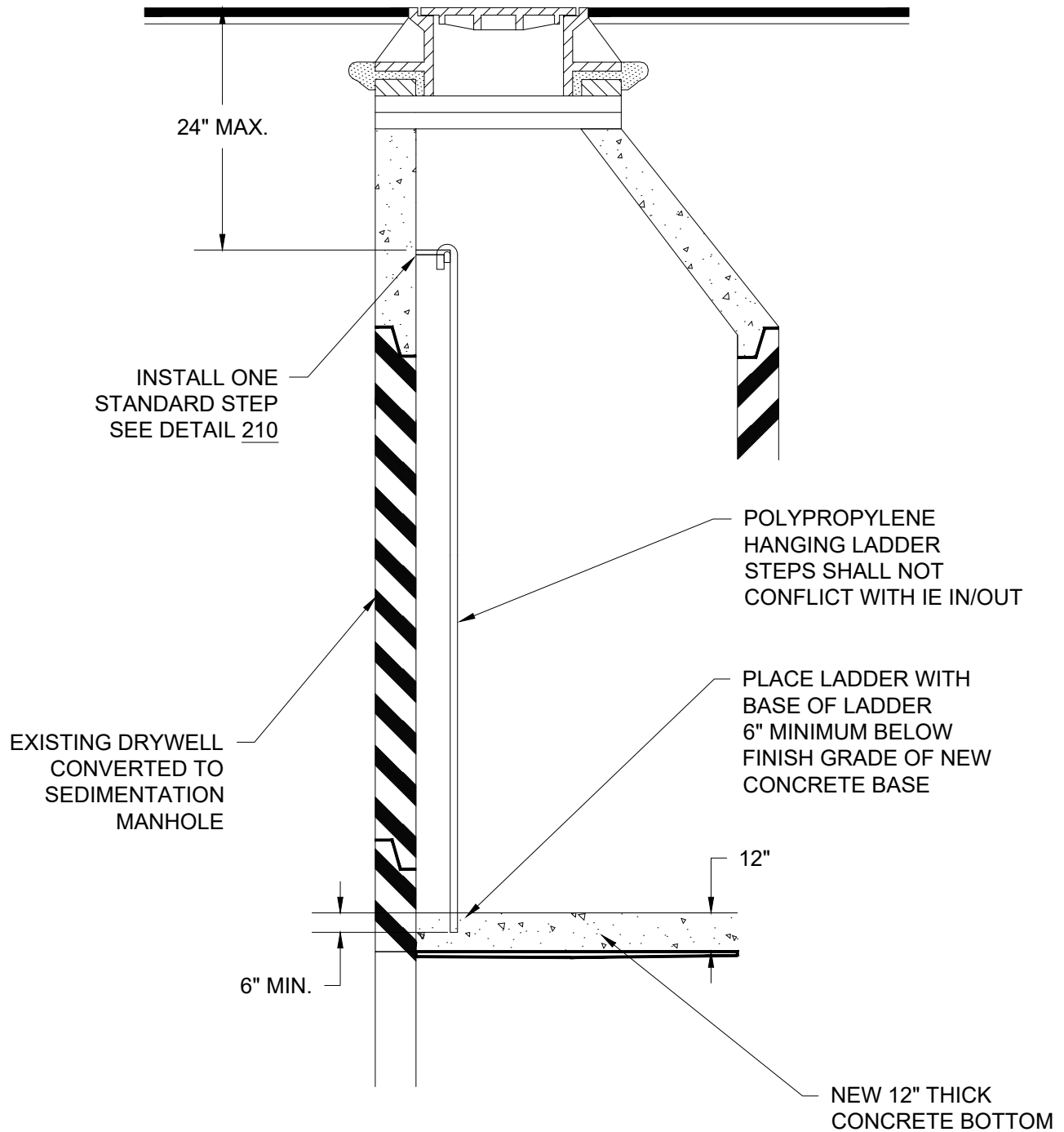
CITY OF GRESHAM

DRYWELL SYSTEM AND SEDIMENTATION MANHOLE (TYPICAL RETROFIT INSTALLATION)

PWS VERSION: JAN 2026

DRAWN	CMC
REV. DATE	AUG 2025
APPR.	
DETAIL NO.	408

FILENAME: y:\inter-departmental\development engineering projects\public works standards\20 pws revision copy\details\400_stormwater\storm cad\409.dwg, Plotted 11/21/2025 8:54 AM, By: Anthony Dollowitch, ANSI FULL BLEED A (8.50 X 11.00 INCHES)



CITY OF
GRESHAM

POLYPROPYLENE HANGING LADDER

PWS VERSION: JAN 2026

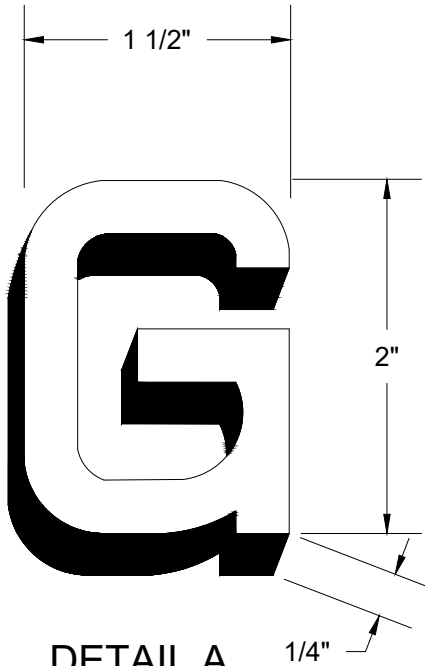
DRAWN CMC

REV. JAN 2019
DATE

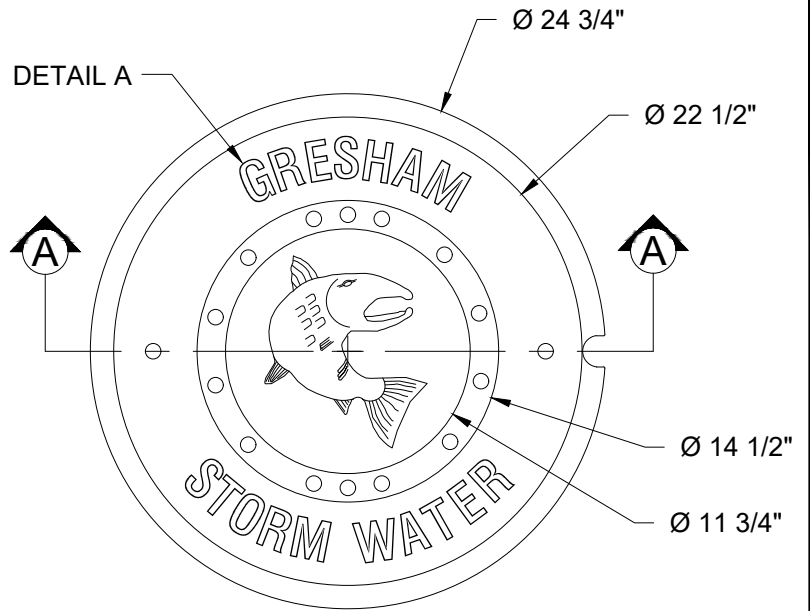
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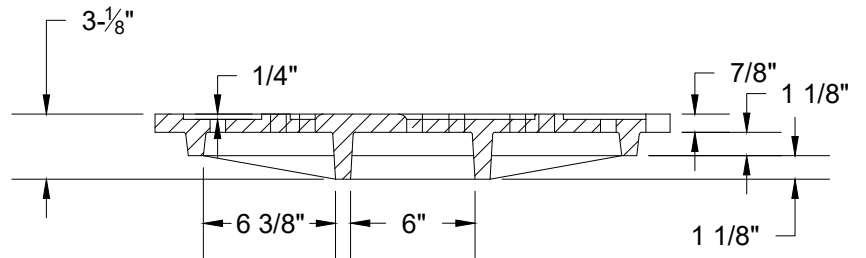
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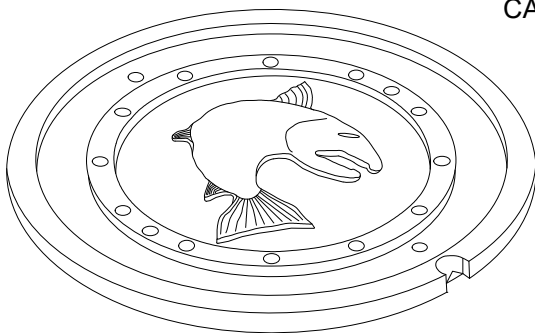
DETAIL A
RAISED TEXT



TOP VIEW

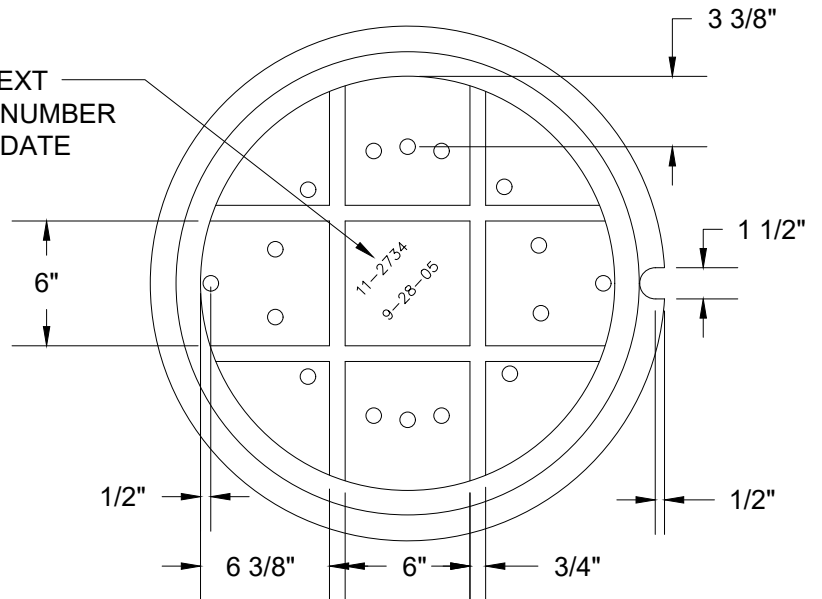


SECTION A-A



RAISED TEXT NOT SHOWN

RAISED TEXT
CASTING NUMBER
CASTING DATE



BOTTOM VIEW

**CITY OF
GRESHAM**

STANDARD STORMWATER MANHOLE COVER

PWS VERSION: JAN 2026

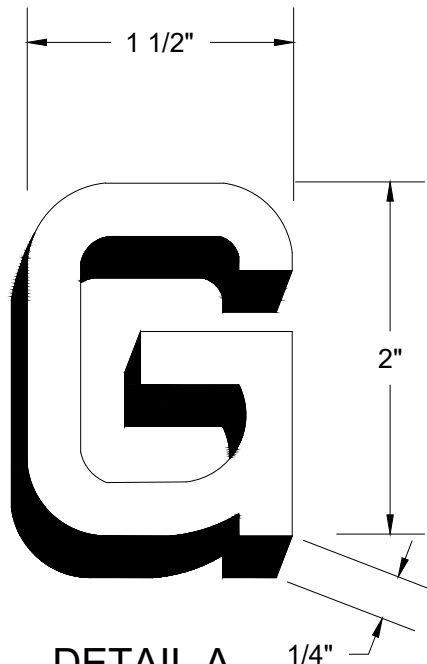
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REV. DATE JAN 2019

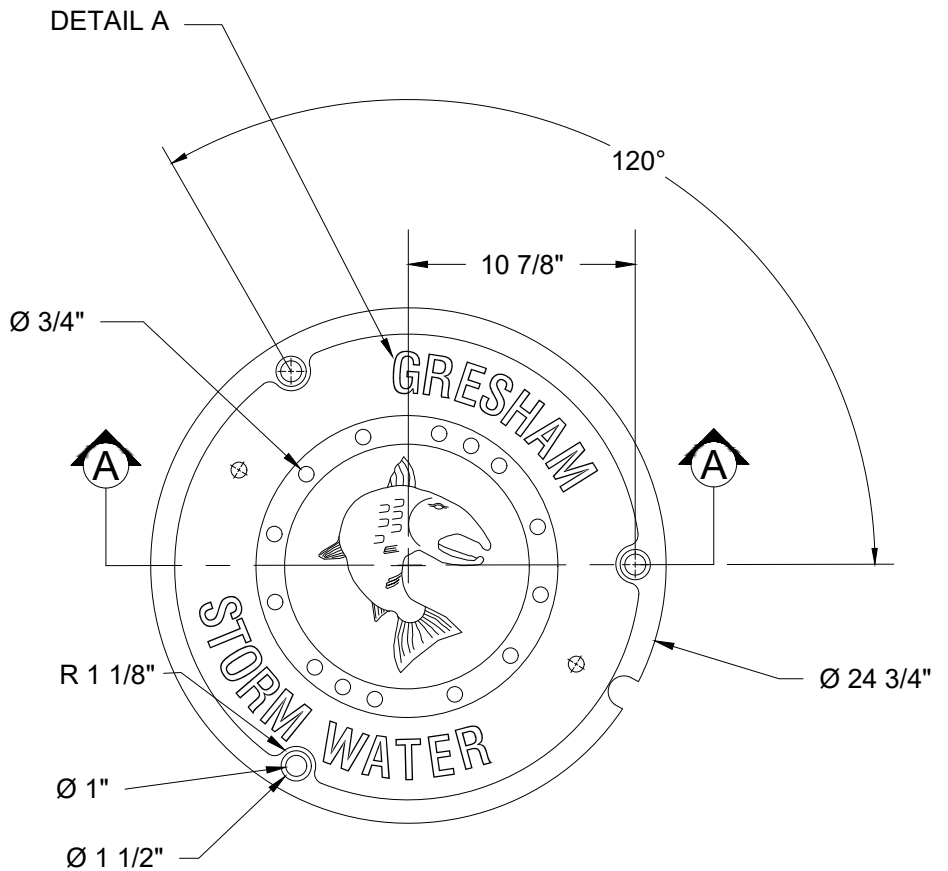
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DETAIL NO. 410

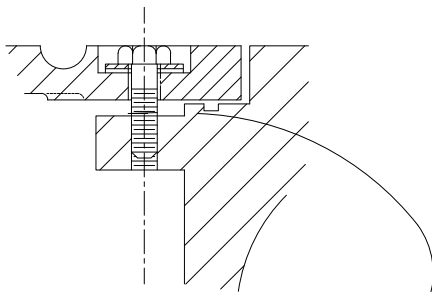
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DETAIL A
RAISED TEXT

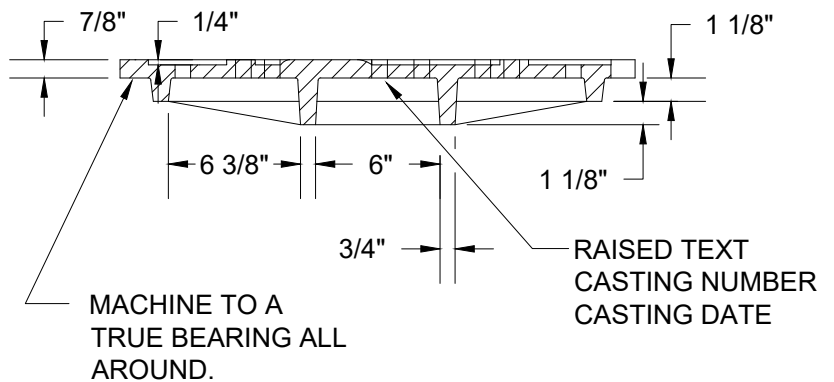


TOP VIEW



1/2"-13 NC X 1 1/4" STAINLESS
STEEL HEX HEAD CAP SCREW
W/ 1 1/4" Ø OD X 3/32" THK. 8-18
STAINLESS STEEL WASHER & 3/32"
NEOPRENE WASHER, (3) EA. REQUIRED.

LOCK DOWN DETAIL



SECTION A-A

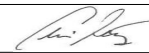
**CITY OF
GRESHAM**

**STORMWATER TAMPERPROOF
MANHOLE COVER**

PWS VERSION: JAN 2026

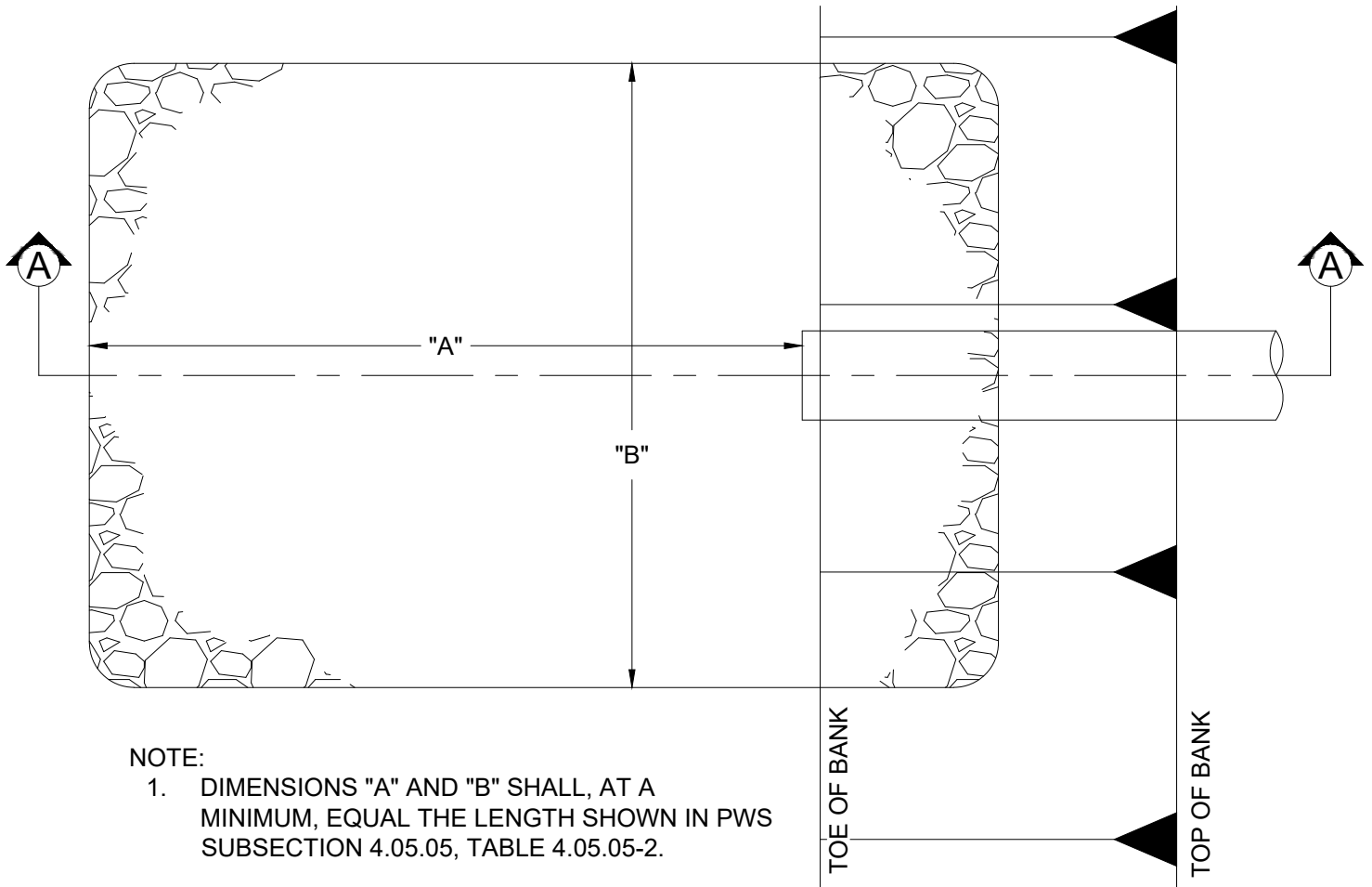
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REV. JAN 2019
DATE

APPR. 

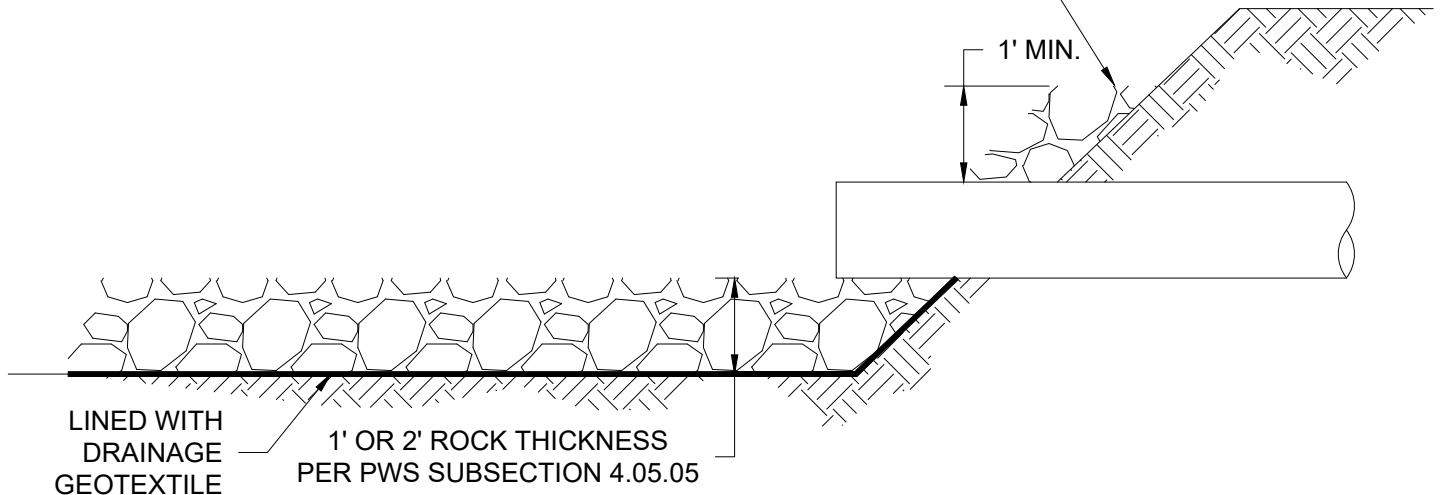
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PLAN

PLACE ROCK 1' ABOVE PIPE CROWN



SECTION A-A

NTS

CITY OF
GRESHAM

OUTFALL PROTECTION

PWS VERSION: JAN 2026

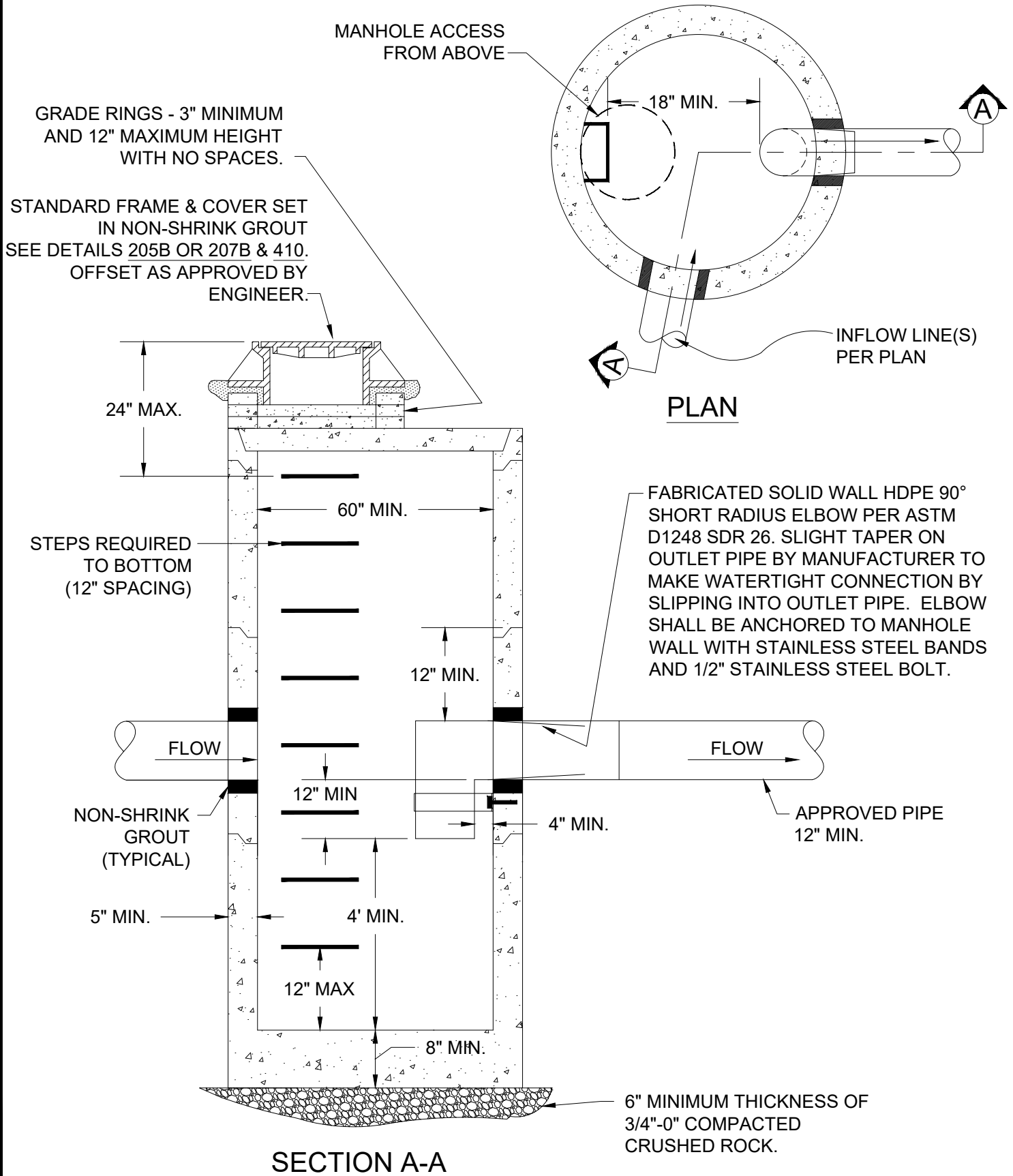
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REV. DATE JAN 2024

APPR.

DETAIL NO. 412

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CITY OF
GRESHAM

SEDIMENTATION MANHOLE

PWS VERSION: JAN 2026

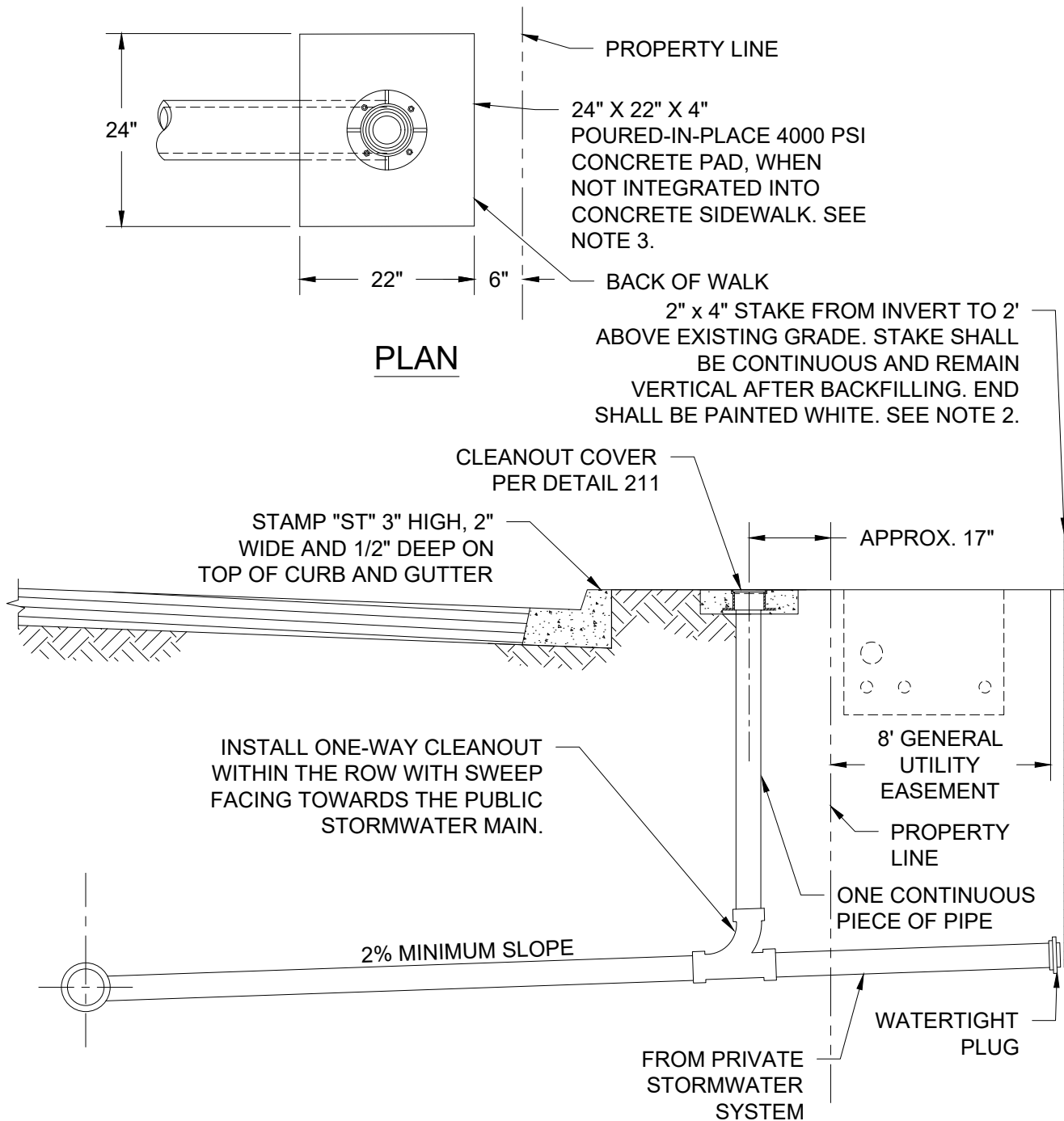
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REV. DATE AUG 2025

APPR.

DETAIL NO. 413

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NOTES:

1. SERVICE SHALL NOT BE BACKFILLED PRIOR TO INSPECTION.
2. INSTALL TRACER WIRE ALONG THE ENTIRE PORTION OF THE LATERAL IN THE RIGHT-OF-WAY.
3. IF THE SIDEWALK WILL BE INSTALLED DURING FUTURE CONSTRUCTION, INSTALL THE PIPE RISER 2" ABOVE GRADE AND DO NOT INSTALL A CONCRETE PAD.
4. THE STORMWATER SYSTEM LOCATED UPSTREAM OF THE CLEANOUT IS TO BE OWNED AND MAINTAINED BY THE PROPERTY OWNER.
5. MINIMUM BURY DEPTH TO BE PER PWS 4.03.02.
6. GREEN MAGNETIC TAPE WITH "CAUTION STORM DRAIN BURIED BELOW" IN RED LETTERS SHALL BE LAID 1' ABOVE THE TOP OF THE STORMWATER LATERAL FROM THE MAIN LINE THEN WRAPPED AROUND THE PLUG AT THE END OF THE SERVICE AND BROUGHT TO THE SURFACE WRAPPED AROUND THE 2" X 4" MARKER.

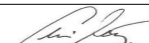
CITY OF
GRESHAM

STORMWATER LATERAL

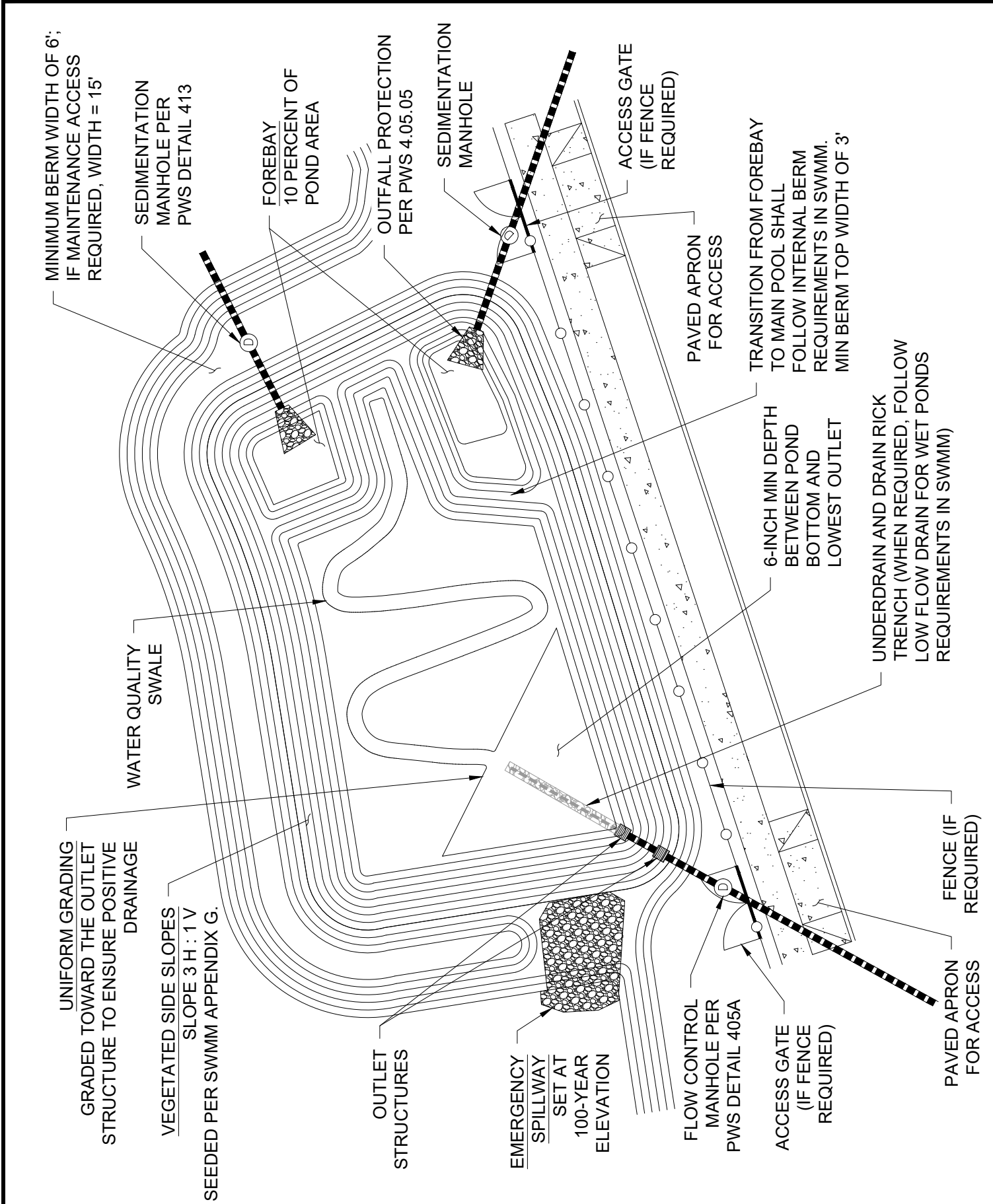
PWS VERSION: JAN 2026

DRAWN AAD

REV. DATE OCT 2025

APPR. 

DETAIL NO. 414



CITY OF
GRESHAM

DRY POND PLAN VIEW

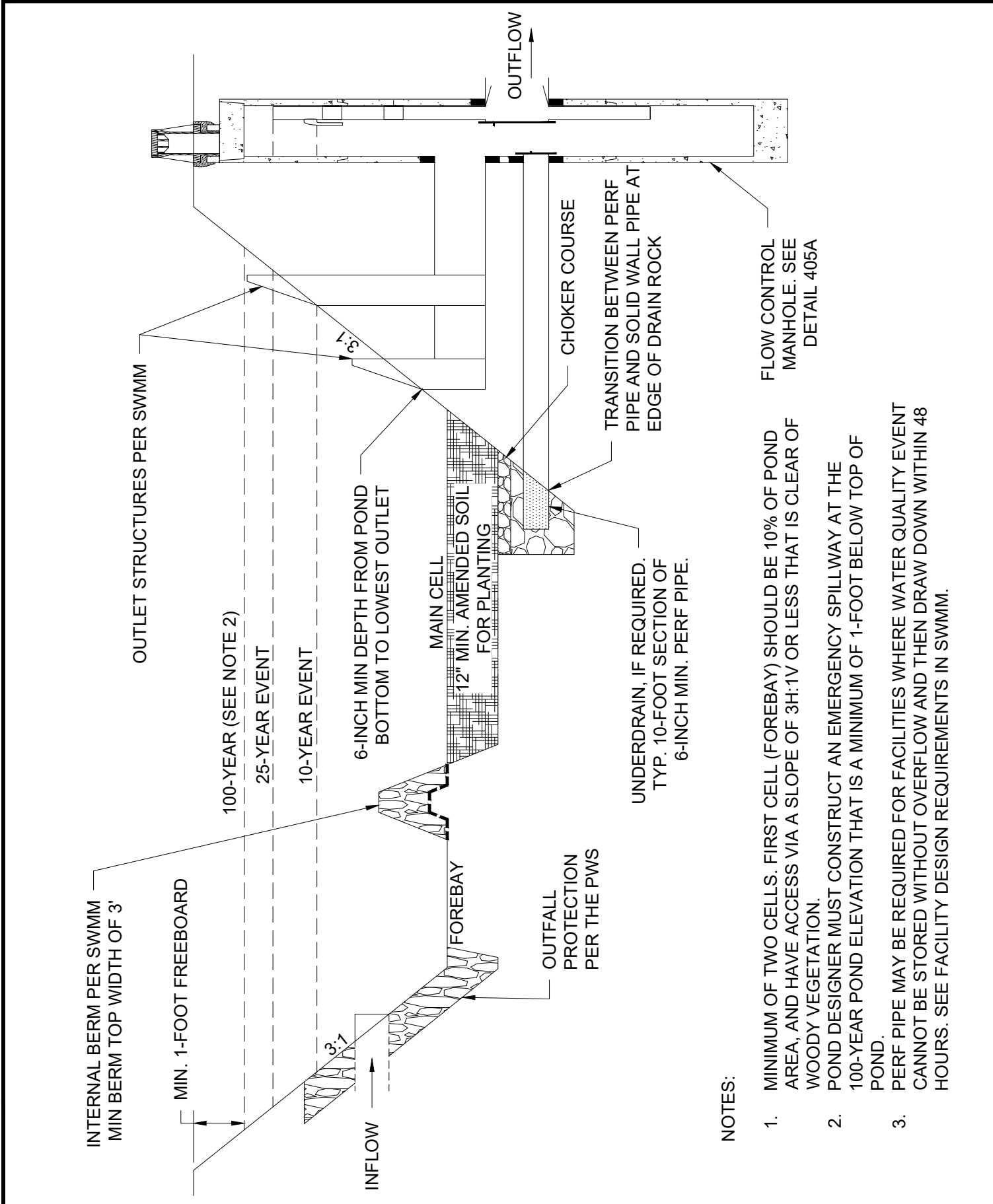
PWS VERSION: JAN 2026

DRAWN AAD

REV. DATE OCT 2025

APPR.

DETAIL NO. 415



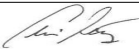
NOTES:

1. MINIMUM OF TWO CELLS. FIRST CELL (FOREBAY) SHOULD BE 10% OF POND AREA, AND HAVE ACCESS VIA A SLOPE OF 3H:1V OR LESS THAT IS CLEAR OF WOODY VEGETATION.
2. POND DESIGNER MUST CONSTRUCT AN EMERGENCY SPILLWAY AT THE 100-YEAR POND ELEVATION THAT IS A MINIMUM OF 1-FOOT BELOW TOP OF POND.
3. PERF PIPE MAY BE REQUIRED FOR FACILITIES WHERE WATER QUALITY EVENT CANNOT BE STORED WITHOUT OVERFLOW AND THEN DRAW DOWN WITHIN 48 HOURS. SEE FACILITY DESIGN REQUIREMENTS IN SWMM.

CITY OF
GRESHAM

DRY POND PROFILE VIEW

PWS VERSION: JAN 2026

DRAWN	AAD
REV. DATE	OCT 2025
APPR.	
DETAIL NO.	416

CITY OF
GRESHAM

WET POND PLAN VIEW

PWS VERSION: JAN 2026

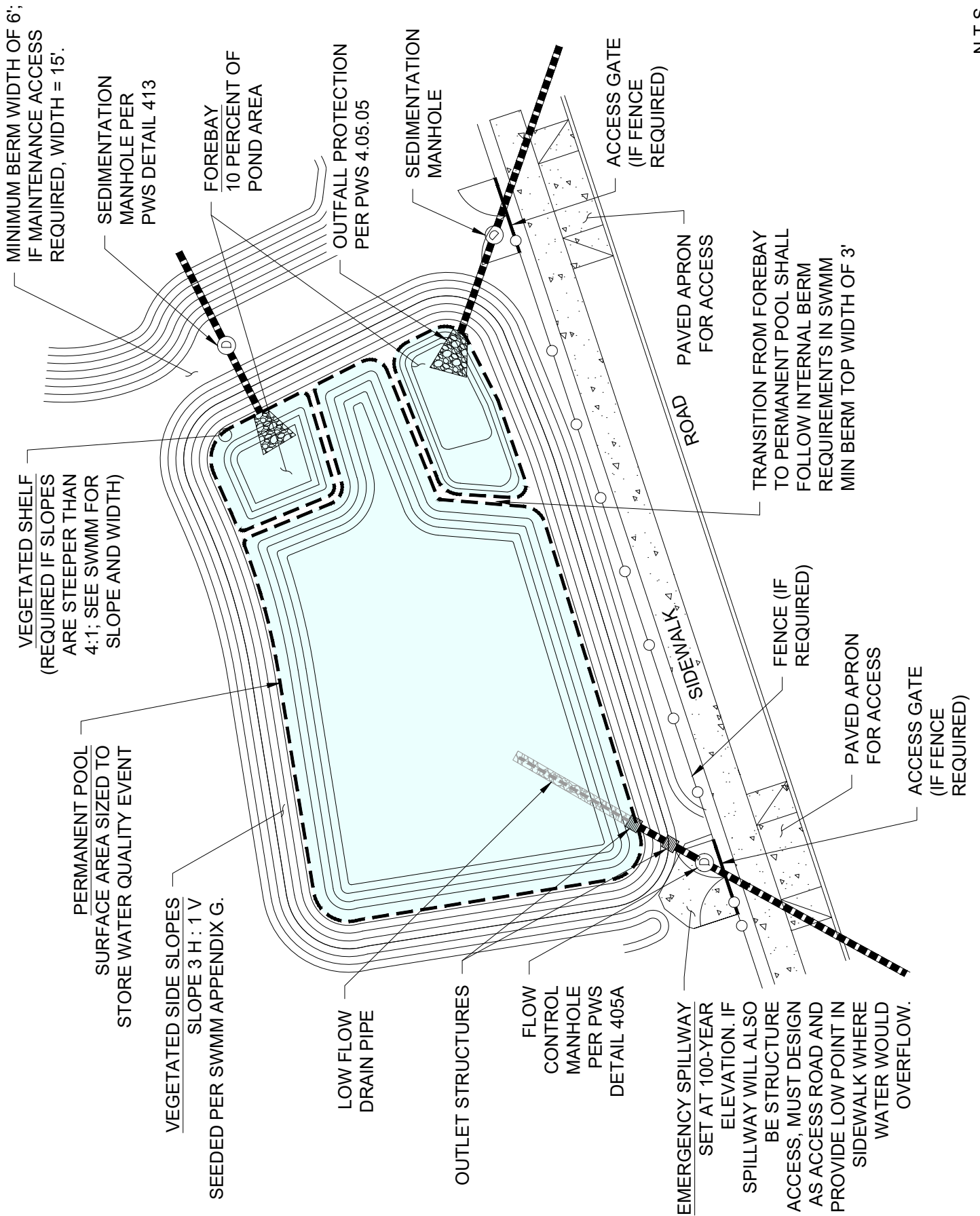
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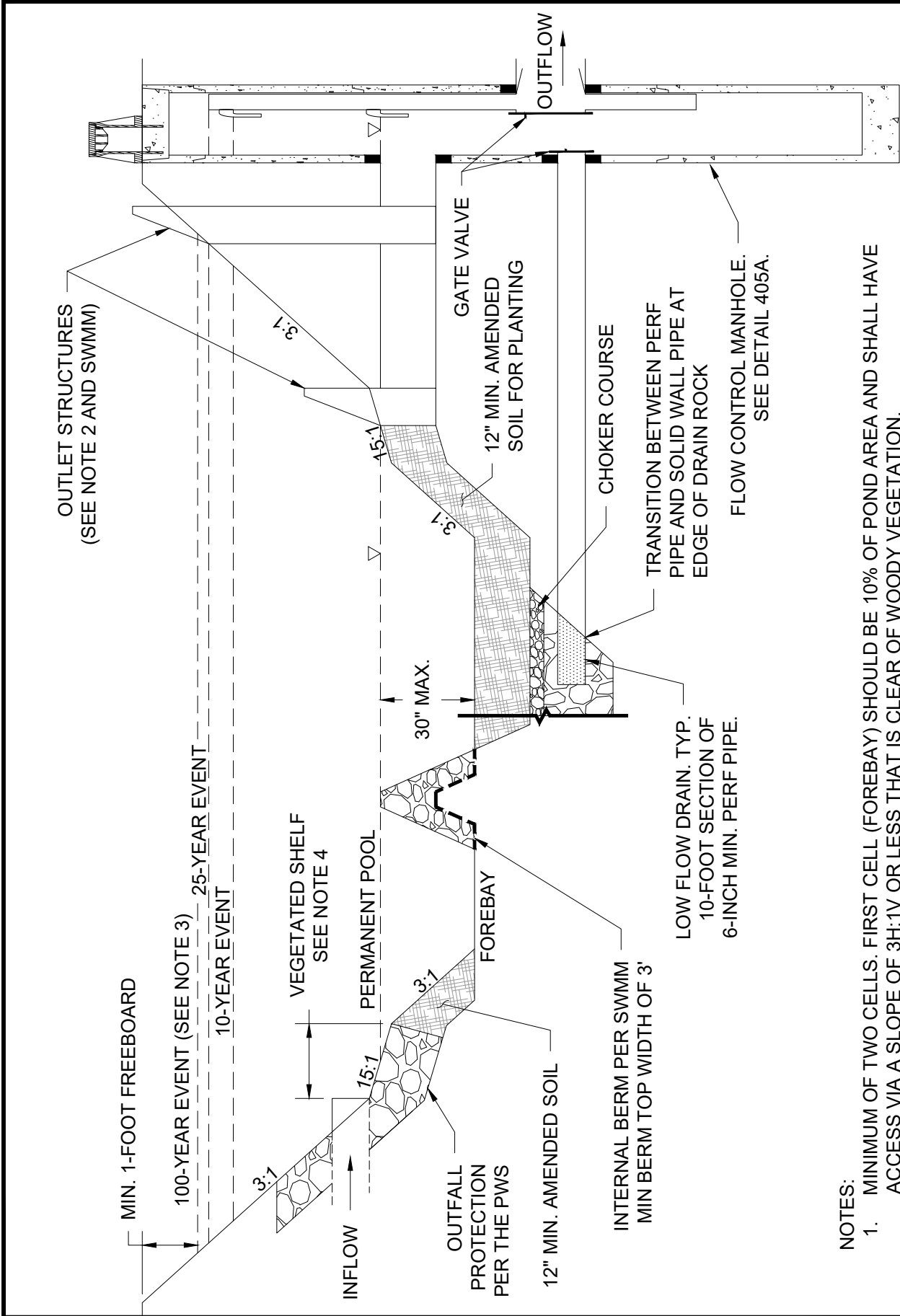
REV. DATE OCT 2025

APPR.

DETAIL NO. 417

N.T.S.





NOTES:

1. MINIMUM OF TWO CELLS. FIRST CELL (FOREBAY) SHOULD BE 10% OF POND AREA AND SHALL HAVE ACCESS VIA A SLOPE OF 3H:1V OR LESS THAT IS CLEAR OF WOODY VEGETATION.
2. LOWEST OUTLET STRUCTURE SHALL BE LOCATED WITHIN VEGETATED SHELF (WHEN REQUIRED), OR AT LEVEL OF PERMANENT POOL, AND PROVIDE MAINTENANCE ACCESS THAT IS CLEAR OF WOODY VEGETATION.
3. POND DESIGNER MUST CONSTRUCT AN EMERGENCY SPILLWAY AT THE 100-YEAR POND ELEVATION THAT IS A MINIMUM OF 1-FOOT BELOW TOP OF POND.
4. VEGETATED SHELF SHOWN FOR REFERENCE. ONLY REQUIRED IF SLOPES ARE STEEPER THAN 4H:1V. SEE SWMM FOR REQUIREMENTS.

N.T.S.

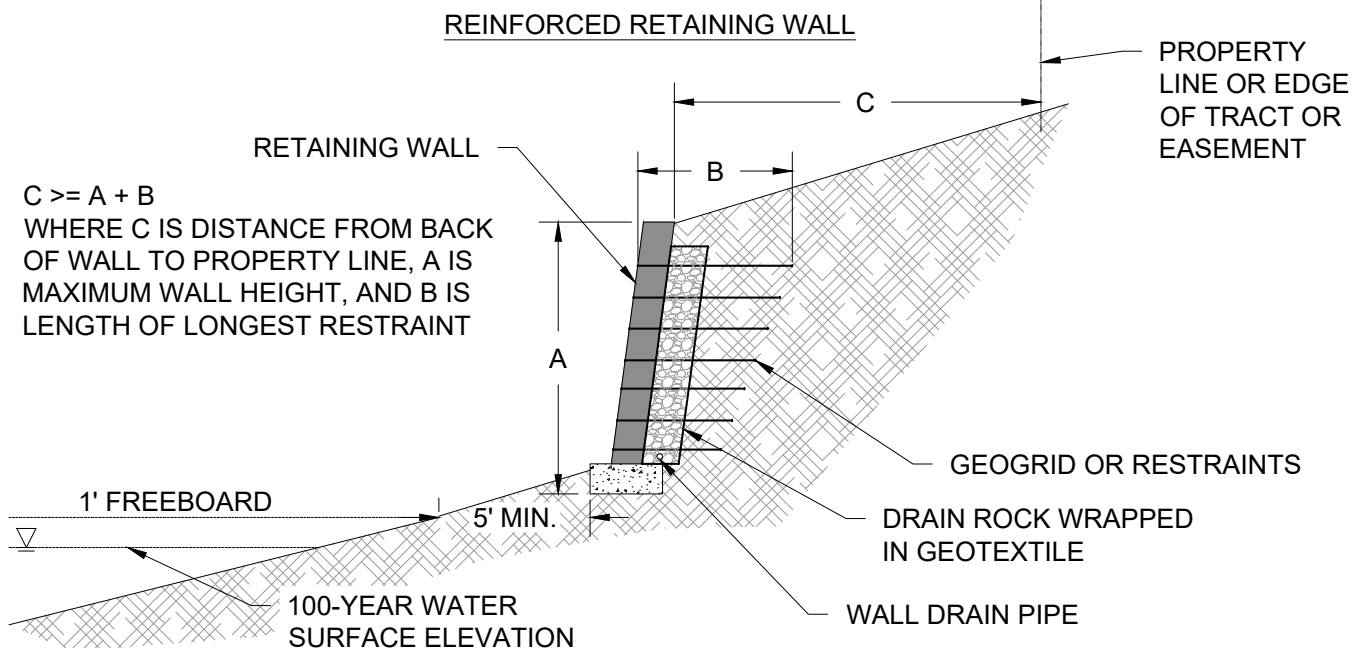
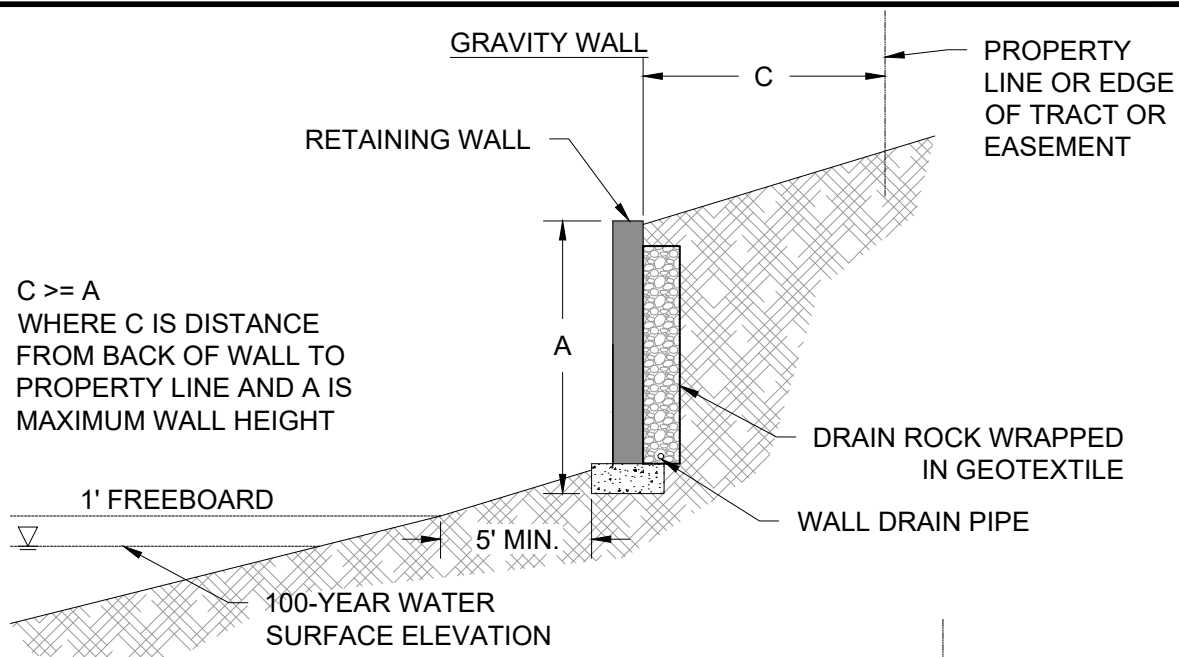
CITY OF
GRESHAM

WET POND PROFILE VIEW

PWS VERSION: JAN 2026

DRAWN	AAD
REV. DATE	OCT 2025
APPR.	
DETAIL NO.	418

FILENAME: y:\inter-departmental\development engineering projects\public works standards\2.0 pws revision copy\details\400_stormwater\storm cad\419.dwg, Plotted 11/21/2025 8:55 AM, By: Anthony Dollowitch, ANSI FULL BLEED A (8.50 X 11.00 INCHES)



1. RETAINING WALLS ARE NOT ALLOWED WITHIN THE ACTIVE POND AREA. ALL PARTS OF THE WALL MUST BE A MINIMUM DISTANCE OF 5 FEET AWAY FROM THE BOUNDARY DEFINED BY THE FREEBOARD ELEVATION.
2. GRAVITY WALLS SHALL BE SET BACK FROM THE NEAREST PROPERTY LINE OR EDGE OF TRACT OR EASEMENT BY AT LEAST THE DISTANCE EQUAL TO THE WALL HEIGHT.
3. REINFORCED RETAINING WALLS SHALL BE SET BACK FROM THE NEAREST PROPERTY LINE OR EDGE OF TRACT OR EASEMENT BY AT LEAST THE DISTANCE EQUAL TO THE MAXIMUM WALL HEIGHT PLUS THE LENGTH OF THE LONGEST RESTRAINT.
4. DRAIN ROCK WRAPPED IN GEOTEXTILE SHALL BE INCLUDED BEHIND WALLS.
5. NO PERFORATIONS FOR PRIVATE STORM LINES SHALL PASS THROUGH RETAINING WALLS.
6. STRUCTURAL DESIGN CALCULATIONS MUST BE SUBMITTED WITH EVERY RETAINING WALL PROPOSAL.
7. WALLS SHALL NOT INHIBIT MAINTENANCE ACCESS INTO THE FACILITY, PARTICULARLY THE FOREBAYS.
8. SLOPES WITHIN CITY TRACT OR EASEMENT SHALL BE A MAXIMUM OF 3H:1V.

**CITY OF
GRESHAM**

RETAINING WALLS ADJACENT TO PONDS

PWS VERSION: JAN 2026

DRAWN TFH

REV. DATE OCT 2025

APPR.

DETAIL NO. 419