# CITY OF ALBANY SQ-21-04, PERIWINKLE BASIN STORMWATER QUALITY RETROFIT

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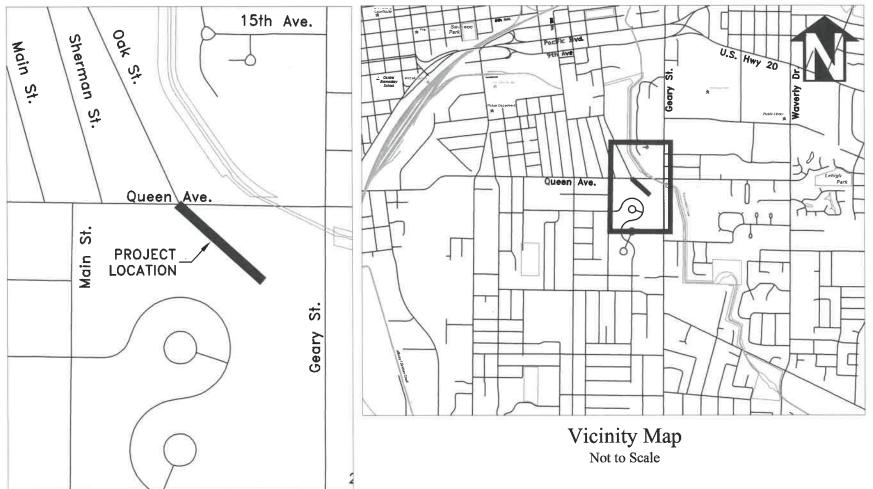
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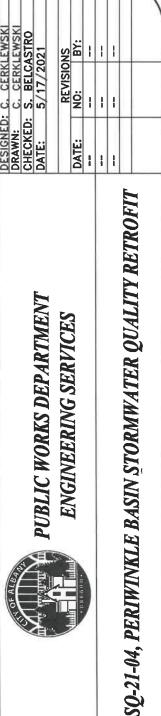
VORTECHS 16000 HYDRODYNAMIC SEPARATOR DETAIL (LEFT)

SHEET NO. 9, VORTECHS 16000 HYDRODYNAMIC SEPARATOR DETAIL (RIGHT)



# GENERAL NOTES

- 1. ALL CONSTRUCTION SHALL CONFORM TO THE CITY OF ALBANY STANDARD CONSTRUCTION SPECIFICATIONS AND ASSOCIATED STANDARD DRAWINGS. THE CURRENT VERSION OF THE CITY OF ALBANY STANDARD CONSTRUCTION SPECIFICATIONS CAN BE FOUND ON THE CITY'S WEBSITE AT WWW.CITYOFALBANY.NET.
- 2. UTILITIES SHOWN ARE FOR REFERENCE ONLY. FOR A FIELD LOCATE, CALL THE UTILITIES NOTIFICATIONS CENTER AT 1-800-332-2344.
- 3. OPERATING ACCESS FOR CITY MAINTENANCE PERSONNEL TO EXISTING AND NEW WATER VALVES AND MANHOLES SHALL BE CONTINUOUSLY MAINTAINED BY THE CONTRACTOR DURING ALL CONSTRUCTION ACTIVITIES.
- 4. CONTRACTOR SHALL VERIFY ALL EXISTING PIPE ELEVATIONS, PIPE DIAMETERS, AND PIPE MATERIALS AT CONNECTION AND ABANDONMENT LOCATIONS PRIOR TO CONSTRUCTION. ANY DISCREPANCIES SHALL BE REPORTED TO ENGINEER PRIOR TO BEGINNING WORK.
- 5. ATTENTION: OREGON LAW REQUIRES YOU TO FOLLOW RULES ADOPTED BY THE OREGON UTILITY NOTIFICATION CENTER. THOSE RULES ARE SET FORTH IN OAR 952-001-0010 THROUGH OAR 952-001-0090, YOU MAY OBTAIN COPIES OF THE RULES BY CALLING THE CENTER. (NOTE: THE TELEPHONE NUMBER FOR THE OREGON UTILITY NOTIFICATION CENTER IS (503) 232-1987).
- 6. CONTRACTOR SHALL BE RESPONSIBLE FOR PROPER INSTALLATION AND MAINTENANCE OF ALL EROSION PREVENTION SEDIMENT CONTROL (EPSC) MEASURES IN ACCORDANCE WITH LOCAL, STATE, AND FEDERAL REGULATIONS UNTIL ALL CONSTRUCTION IS COMPLETED AND APPROVED BY THE CITY OF ALBANY, AND VEGETATION/LANDSCAPING IS ESTABLISHED. FOR GUIDANCE, REFER TO THE CITY OF ALBANY EPSC MANUAL WHICH CAN BE FOUND AT www.cityofalbany.net.



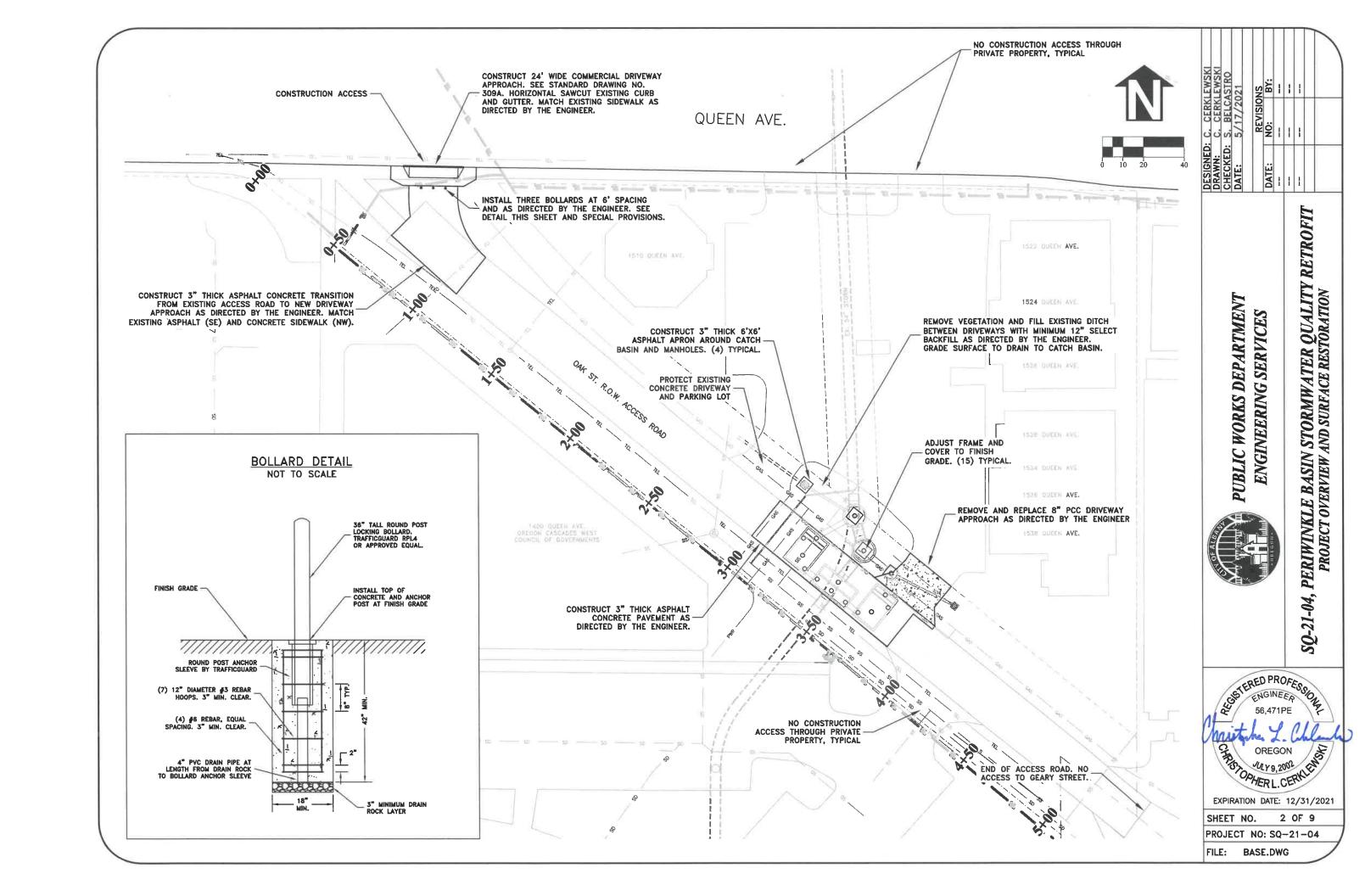
PUBLIC WORKS DEPARTMENT ENGINEERING SERVICES

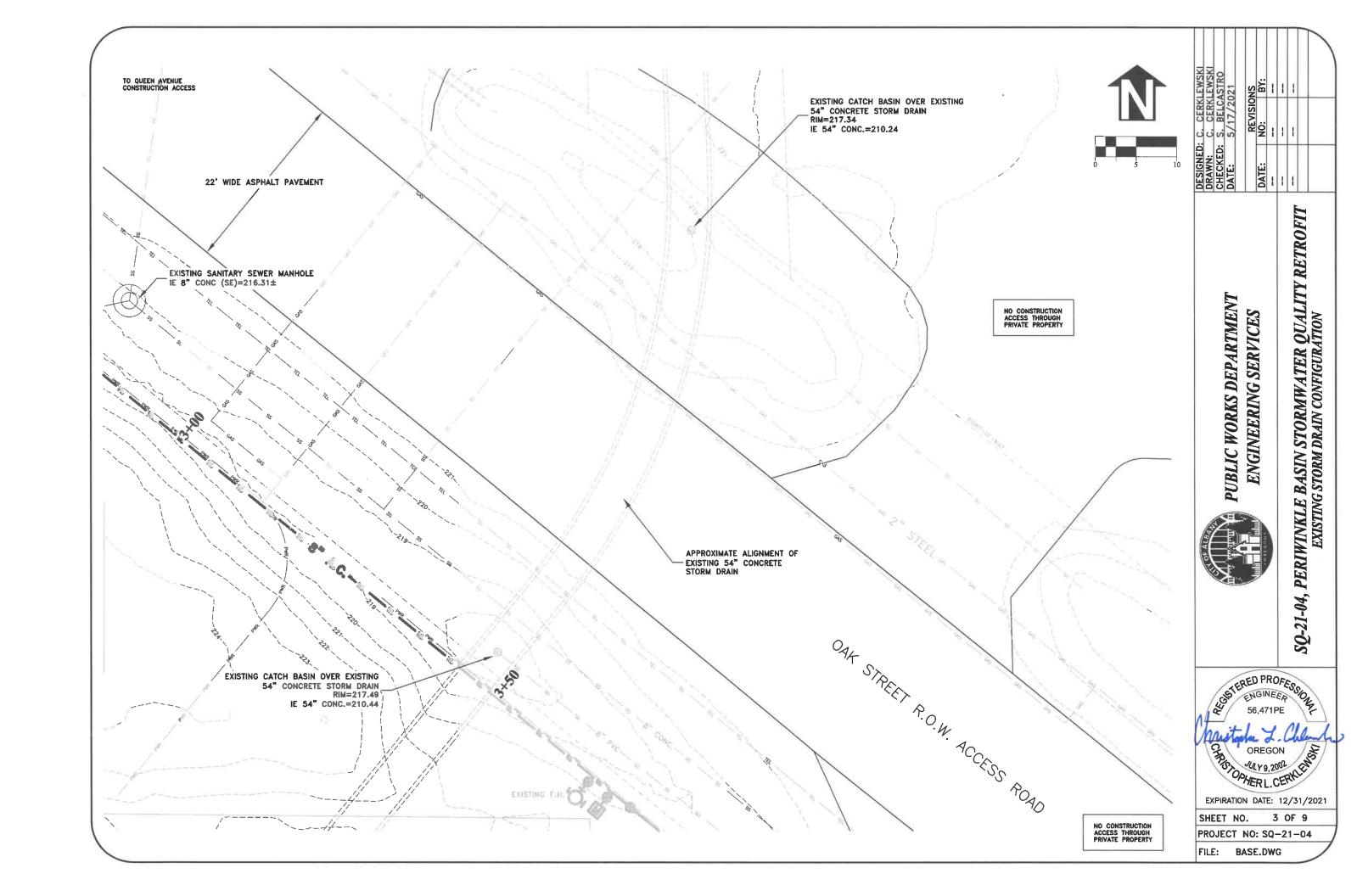


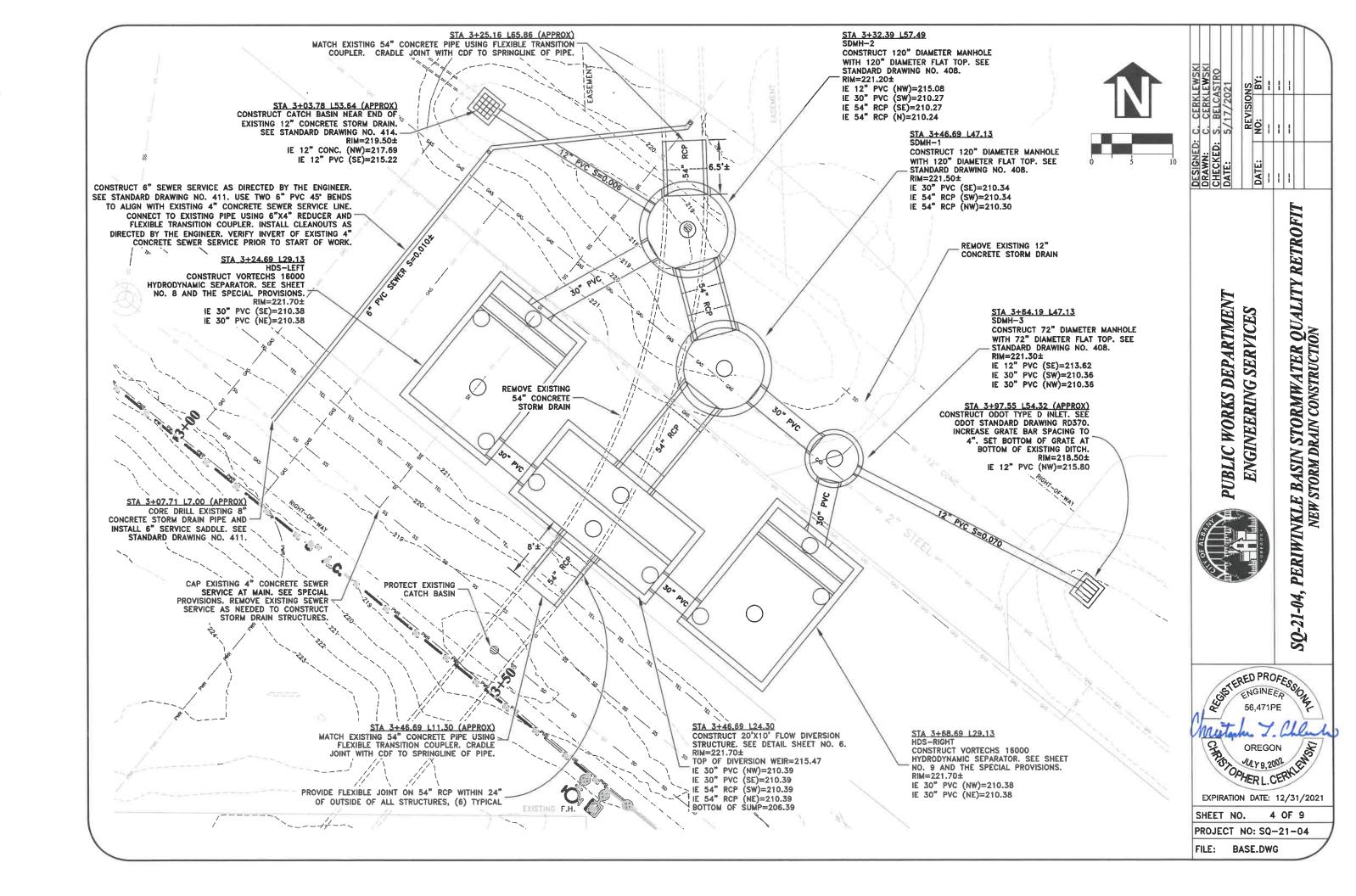
EXPIRATION DATE: 12/31/2021

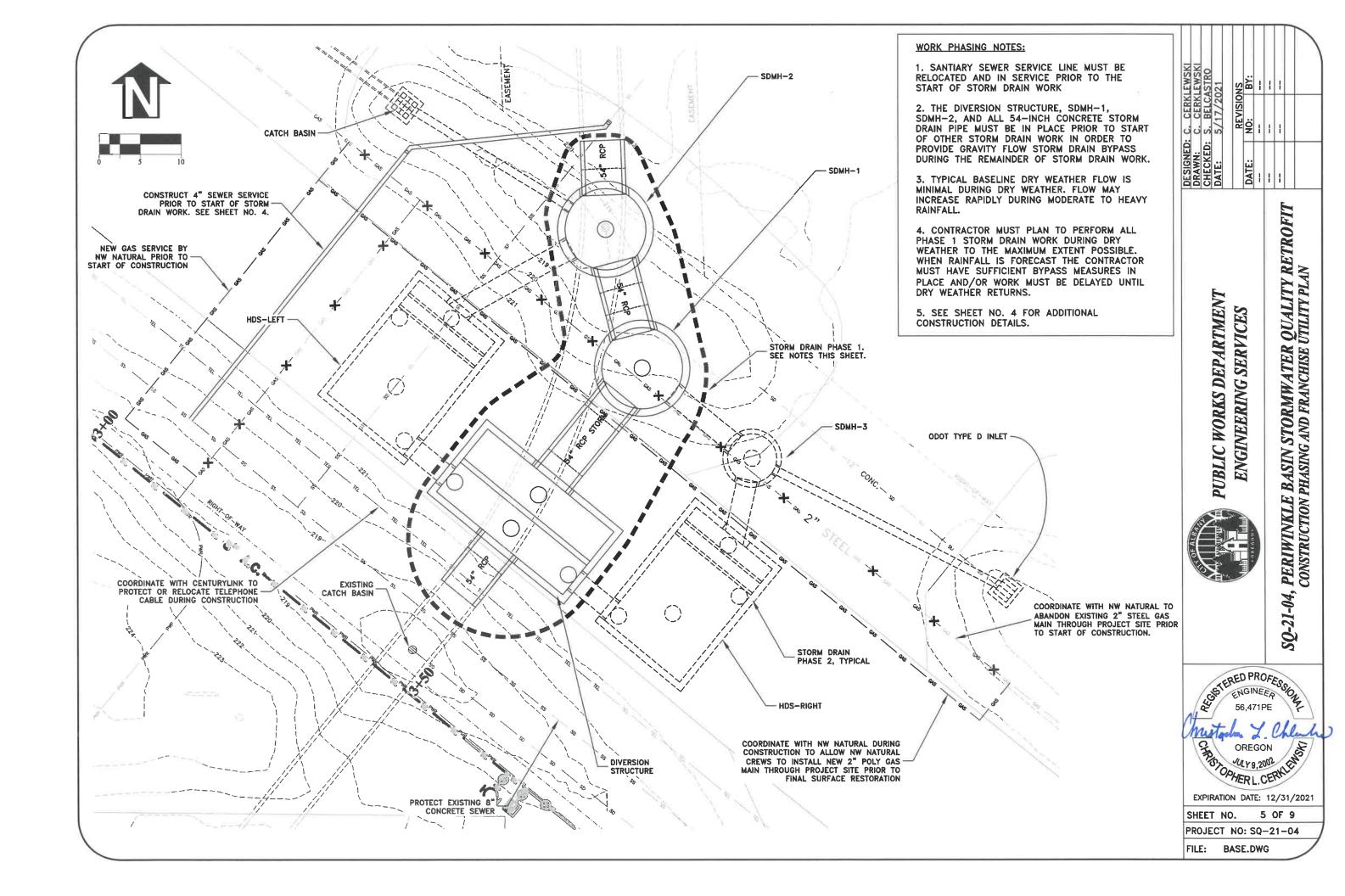
SHEET NO. 1 OF 9 PROJECT NO: SQ-21-04

FILE: COVER.DWG









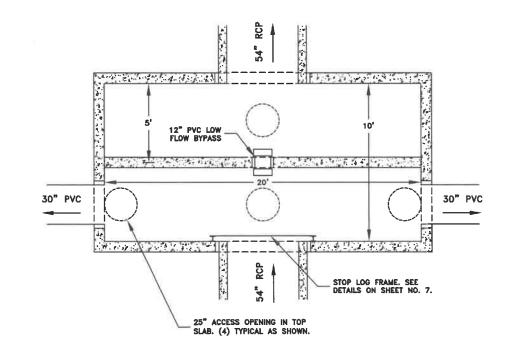
# FLOW DIVERSION STRUCTURE DETAILS

# FRONT VIEW SET FRAME AND COVER TO FINISH GRADE. SEE STANDARD DRAWING NO. 407. (4) TYPICAL RIM=221.70± 6" MIN. 15" MAX. STREET, ATTAC 11 45 1 6 64 TOP OF BAFFLE WALL ELEV=215.47 ANCHOR BAFFLE WALL TO EXTERIOR WALL AND SEAL WITH NON-SHRINK GROUT ON UPSTREAM SIDE, TYPICAL 72" BLOCKOUT FOR 12" PVC LOW FLOW BYPASS IE=211.39 30" PVC 30" PVC APPROX. LOW BOTTOM OF STRUCTURE ELEV=205.89 IE=210.39 LOW POINT ELEV=206.39

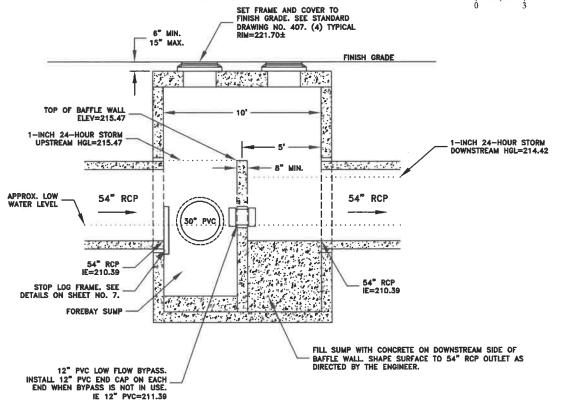
# TOP VIEW

PLACE CONCRETE IN FOREBAY AS SHOWN

6" MIN.



# SIDE VIEW



# **NOTES:**

- 1. CONTRACTOR SHALL SUBMIT A VAULT DESIGN FOR REVIEW AND APPROVAL BY THE ENGINEER
- 2. STRUCTURE SHALL BE H20 LOAD RATED PRECAST CONCRETE
- 3. STRUCTURE SHALL BE DESIGNED TO RESIST FLOATATION WITH WATER TABLE ASSUMED TO BE AT FINISH GRADE.
- 4. ALL PIPES SHALL BE INSTALLED FLUSH WITH INSIDE WALL OF STRUCTURE. PIPES SHALL NOT PROTRUDE PAST INSIDE WALL.



RETROFIT

**PUBLIC WORKS DEPARTMENT** ENGINEERING SERVICES

SQ-21-04, PERIWINKLE BASIN STORMWATER QUALITY DIVERSION STRUCTURE DETAILS STERED PROFESSION ENGINEER 56,471PE OREGON CAY9,2002 CERN LINE EXPIRATION DATE: 12/31/2021

PROJECT NO: SQ-21-04

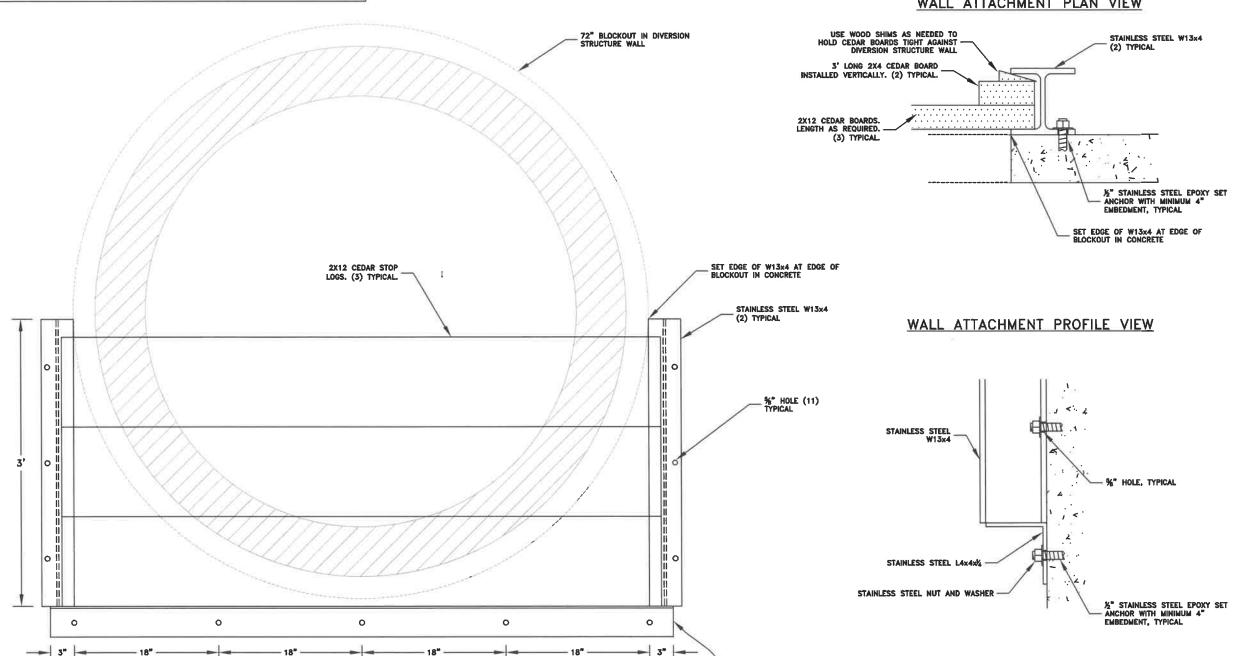
FILE: BASE, DWG

6 OF 9

# STOP LOG FRAME DETAILS

- 1. CONTRACTOR SHALL PROVIDE CEDAR STOP LOGS AS SHOWN TO THE ENGINEER PRIOR TO PROJECT COMPLETION.
- 2. STOP LOGS ARE INTENDED TO FACILITATE ROUTINE MAINTENANCE ACTIVITIES AND MAY NOT BE APPROPRIATE FOR USE DURING CONSTRUCTION.
- 3. STOP LOGS SHALL NOT BE INSTALLED WITHOUT PRIOR APPROVAL OF THE ENGINEER.
- 4. ALL LUMBER SIZES SHOWN ARE NOMINAL.
- 5. EPOXY USED FOR STAINLESS STEEL ANCHORS SHALL BE RATED FOR CONTINUOUSLY UNDERWATER APPLICATIONS.





STAINLESS STEEL L4x4x/4.
SET TOP 1" BELOW BLOCKOUT.



# **PUBLIC WORKS DEPARTMENT** ENGINEERING SERVICES

SQ-21-04, PERIWINKLE BASIN STORMWATER QUALITY RETROFIT Stop log frame details

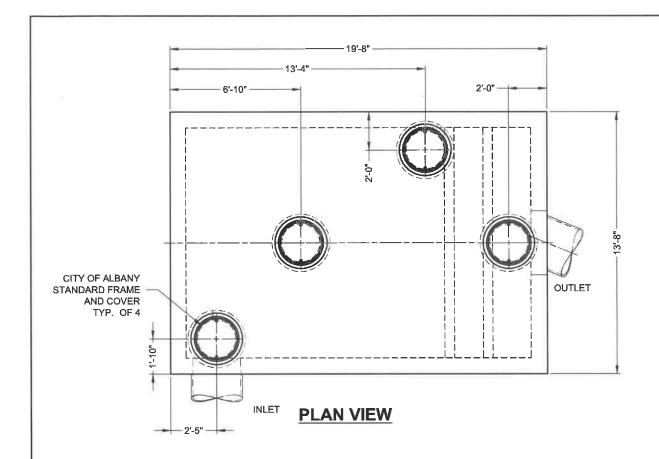


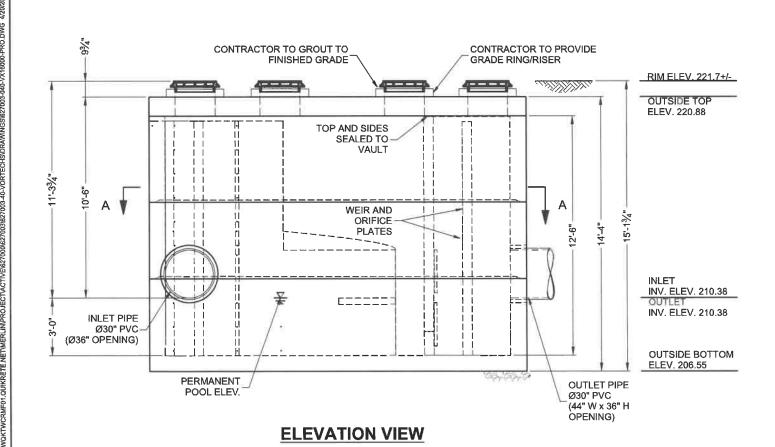
SETERED PROFESSION ENGINEER SOLVEN OREGON OREGON WY9,2002 MERL. CERNEL EXPIRATION DATE: 12/31/2021

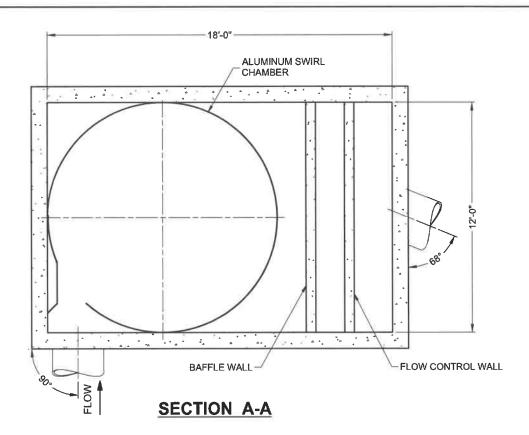
7 OF 9 SHEET NO.

PROJECT NO: SQ-21-04

FILE: BASE.DWG







# MATERIALS LIST - PROVIDED BY CONTECH

| COUNT | DESCRIPTION INSTALL               |            |  |  |
|-------|-----------------------------------|------------|--|--|
| 1     | ALUMINUM SWIRL CHAMBER CONTRACTOR |            |  |  |
| 1     | SWIRL CHAMBER SEALANT             | CONTRACTOR |  |  |
| 1     | ALUMINUM ORIFICE PLATE            | CONTRACTOR |  |  |
| 1     | ALUMINUM WEIR PLATE CONTR         |            |  |  |
|       |                                   |            |  |  |
| 1     | BUTYL MASTIC JOINT SEALANT        | CONTRACTOR |  |  |

| WATER QUALITY<br>FLOW RATE      | 20.11 CFS |
|---------------------------------|-----------|
| PEAK FLOW<br>RATE               | OFFLINE   |
| RETURN PERIOD<br>OF PEAK FLOW   | N/A       |
| *GROUNDWATER ELEV.<br>(ASSUMED) | 221.7     |
|                                 |           |

<sup>\*</sup> SEE NOTE 4

- 1. CONTECH TO PROVIDE ALL MATERIALS UNLESS NOTED OTHERWISE.
  2. FOR FABRICATION DRAWINGS WITH DETAILED VAULT DIMENSIONS AND WEIGHT, PLEASE CONTACT YOUR CONTECH
- CONSTRUCTION PRODUCTS INC. REPRESENTATIVE. www.contech-cpi.com

  3. VORTECHS WATER QUALITY VAULT SHALL BE IN ACCORDANCE WITH ALL DESIGN DATA AND INFORMATION CONTAINED IN THIS DRAWING. CONTRACTOR TO CONFIRM THAT STRUCTURE MEETS REQUIREMENTS OF PROJECT.

  4. STRUCTURE SHALL MEET HS-20 LOAD RATING ASSUMING EARTH COVER OF 0' 5', AND GROUNDWATER ELEVATION AT,
- OR BELOW, 3'-0" ABOVE STRUCTURE INVERT. ENGINEER OF RECORD TO PROVIDE ACTUAL GROUNDWATER ELEVATION. CASTINGS SHALL MEET AASHTO M306 LOAD RATING AND BE CAST WITH THE CONTECH LOGO.
- 5. WATER SURFACE ELEVATION IN THE VORTECHS STRUCTURE IS EXPECTED TO BE AT OR BELOW TOP OF FLOW CONTROL WALL DURING THE DESIGN STORM.
- 6. VORTECHS STRUCTURE SHALL BE PRECAST CONCRETE CONFORMING TO ASTM C-857 AND AASHTO LOAD FACTOR DESIGN METHOD.

- INSTALLATION NOTES
  A. ANY SUB-BASE, BACKFILL DEPTH, AND/OR ANTI-FLOTATION PROVISIONS ARE SITE-SPECIFIC DESIGN CONSIDERATIONS AND SHALL BE SPECIFIED BY ENGINEER OF RECORD.
- B. CONTRACTOR TO PROVIDE EQUIPMENT WITH SUFFICIENT LIFTING AND REACH CAPACITY TO LIFT AND SET THE VORTECHS STRUCTURE.
- C. CONTRACTOR TO INSTALL JOINT SEALANT BETWEEN ALL STRUCTURE JOINTS AND ASSEMBLE STRUCTURE.
- D. CONTRACTOR TO PROVIDE, INSTALL, AND GROUT PIPES. INLET PIPE TO BE SET 90° TO STRUCTURE WALL. MATCH PIPE INVERTS WITH ELEVATIONS SHOWN. ALL PIPE CENTERLINES TO MATCH PIPE OPENING CENTERLINES.
- E. CONTRACTOR TO PROVIDE ANY EXTERNAL BYPASS STRUCTURE REQUIRED FOR OFFLINE LAYOUT UNLESS OTHERWISE SPECIFIED.
- F. CONTRACTOR TO PROVIDE AND INSTALL MANHOLE RISERS, GRADE RINGS OR BLOCK REQUIRED BETWEEN THE TOP OF THE VORTECHS STRUCTURE AND THE BASE OF THE MANHOLE FRAMES.
- G. INSTALLATION AND ASSEMBLY INSTRUCTIONS AVAILABLE UPON REQUEST

STRUCTURE WEIGHT
APPROXIMATE HEAVIEST PICK = 68,000 LBS. OF 4 PIECES

MAX FOOTPRINT = 13.67' x 19.67'

CONTECH **PROPOSAL** DRAWING

| #                           | #         | #                             | #          |                  |  |
|-----------------------------|-----------|-------------------------------|------------|------------------|--|
| #                           | #         | #                             | #          |                  |  |
| #                           | *         | #                             | #          |                  |  |
| VORTECHS 16000 - 627003-040 | <b> -</b> | PEKIWIINKLE BASIN I KEALIMENI | ALBANY, OR | for SYSTEM: LEFT |  |

Vortechs\*

SCALE:

DWB

PROVED:

DLG

SEQUENCE No.:

040

1:60

4/14/2021

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ROJECT No.

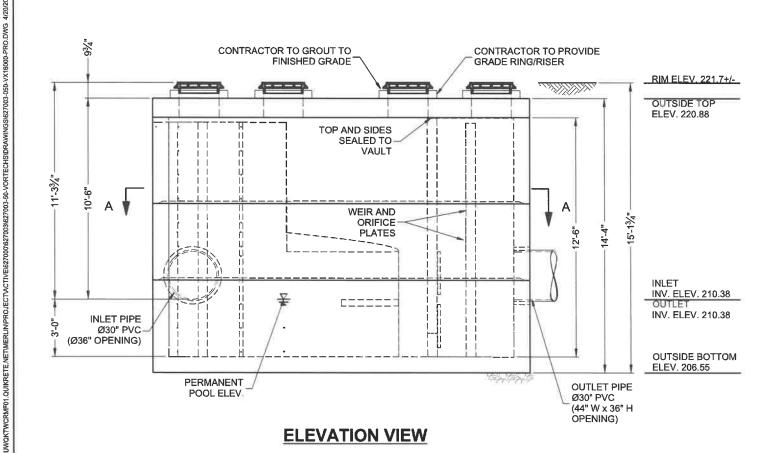
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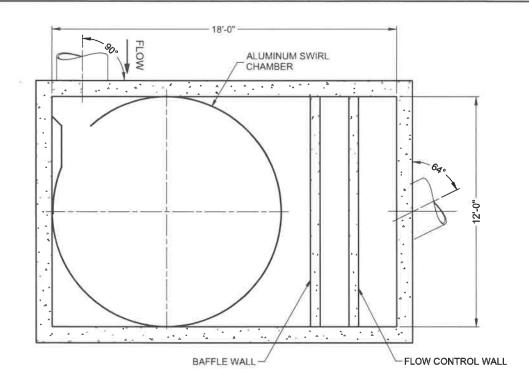
8 OF 9

DESIGNED

HECKED:

# **PLAN VIEW**





# **SECTION A-A**

# MATERIALS LIST - PROVIDED BY CONTECH

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OF 4 PIECES

MAX FOOTPRINT = 13.67' x 19.67'

CONTECH **PROPOSAL** DRAWING

| The design and Information shown on<br>this drawing is provided as a service to the project or<br>profesor and contractor by Contact Forthesond Soli | The deeper and Theoremistry and Properties of the standard of the standard is provided as a service to the propert or inspired row inspired to which standard is provided as a service to the properties of the standard of the deelegh. Content of the standard of the standa |   |   |   |  |                      |
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VORTECHS 16000 - 627003-050 PERIWINKLE BASIN TREATMENT OR RIGHT ALBANY, (SYSTEM: F

| F 2 188 F 5  |               |  |  |
|--------------|---------------|--|--|
| DATE:        | SCALE:        |  |  |
| 4/15/2021    | 1:60          |  |  |
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| DLG          | . DWB         |  |  |
| CHECKED:     | APPROVED:     |  |  |
| DLG          | DLG           |  |  |
| PROJECT No.: | SEQUENCE No.: |  |  |
| 627003       | 050           |  |  |
|              |               |  |  |

H2 SHEET: 9 OF 9