

Staff Report Addendum

Date: October 3, 2025
To: Douglas County Planning Commission
From: Trevor Bedford, AICP, Senior Planner *TB*
Jeanette Bare, AICP, Planning Manager *SK for JB*
Steven E. Koster, AICP, Assistant Director of Planning Services *SK*
Subject: River Canyon Filing 2, 3rd Amendment, Lot 2A-1
Project File: LE2025-018

Planning Commission Hearing: October 6, 2025 @ 6:00 p.m.

Additional referral responses and public comment have been received since the staff report was written and are attached to this addendum.

The applicant has indicated that it will provide responses to comments prior to or at the Planning Commission Hearing.

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Referral Agency Response Report

Project Name: River Canyon Filing 2, 3rd Amendment, Lot 2A-1

Project File #: LE2025-018

Date Sent: 09/19/2025

Date Due: 10/02/2025

Agency	Date Received	Agency Response	Response Resolution
AT&T Long Distance - ROW	09/24/2025	This is in response to your eReferral with a utility map showing any buried AT&T Long Line Fiber Optics near Caretaker Rd Littleton, Colorado. The Earth map shows the project area in red and the buried AT&T Long Line Fiber Optics in yellow. Based on the address and/or map you provided, there should be NO conflicts with the AT&T Long Line facilities.	Forwarded to applicant
Addressing Analyst	09/19/2025	New addresses have been assigned to the two additional buildings proposed with this project. The entire site was recently re-addressed per request from Dominion Water and Sanitation District. See below and the attached address map for details. Current Addresses 11300 Caretaker Road 11306 Caretaker Road 11310 Caretaker Road 11314 Caretaker Road 11324 Caretaker Road New Addresses 11318 Caretaker Road 11320 Caretaker Road Contact DCAddressing@douglas.co.us or 303.660.7449 with questions.	Forwarded to applicant
Assessor	09/29/2025	Please be aware of the following Comments: None	No response necessary
Black Hills Energy	09/25/2025	No comment	No response necessary
Building Services		No response received	
Comcast		No response received	
Engineering Services	10/01/2025	See attached letter Summary: Comment #1 -Engineering doesn't have any concerns regarding the proposed location & extent. Comment #2 -The following items will need to be submitted for review and approval prior to permits being issued for the project: Construction Plans (submitted and redlines are provided) Phase III Drainage Report (submitted and acceptable as submitted) GESC Plans (submitted and redlines are provided) GESC Report (submitted and acceptable as submitted)	Forwarded to applicant

Referral Agency Response Report**Project Name:** River Canyon Filing 2, 3rd Amendment, Lot 2A-1**Project File #:** LE2025-018**Date Sent:** 09/19/2025**Date Due:** 10/02/2025

CORE Electric Cooperative	09/22/2025	We have received the above-referenced referral request. We have reviewed our records and find that this property is not in our service territory.	No response necessary
Jefferson County Planning and Zoning		No response received	
Office of Emergency Management	09/19/2025	No comment	No response necessary
Douglas County Health Department	09/24/2025	See attached letter Summary: Provided information regarding abandoning on site wastewater treatment systems.	Forwarded to applicant
Mile High Flood District		No response received	
CenturyLink		No response received	
Sheriff's Office		No response received	
Sheriff's Office E911		No response received	
US Army Corp of Engineers		No response received	
South Metro Fire Rescue	10/01/2025	South Metro Fire Rescue (SMFR) has reviewed the provided documents and determined that this project is not within the district boundaries of SMFR.	No response necessary
West Metro Fire Protection District	10/2/2025	See attached letter Summary: Future permitting and inspections will be required. West Metro has had discussions with the applicant.	Forwarded to applicant
Arrowhead Shores		No response received	
Chatfield Community Association	09/20/2025	See attached letter. Summary: Concerns regarding water quality and that it may be premature to approve prior to CDPHE and Denver Water approvals	Forwarded to applicant
Chatfield Farms 1-A		No response received	
Chatfield Farms 1-B HOA		No response received	
Ravenna Homeowners Master Association		No response received	
Roxborough Park Foundation		No response received	
Roxborough Ridge HOA		No response received	
Roxborough Village Filing 14B HOA		No response received	

Referral Agency Response Report

Project Name: River Canyon Filing 2, 3rd Amendment, Lot 2A-1

Project File #: LE2025-018

Date Sent: 09/19/2025

Date Due: 10/02/2025

Roxborough Village First HOA		See attached letter Summary: Concerns that a lawsuit with Denver Water and other permitting is still needed. Concerns with ARPA funding and proximity to floodplain.	Forwarded to applicant
Ravenna Metro District		No response received	
CDPHE – All Referrals	09/23/2025	See attached letter Summary: Provided information regarding air quality control measures that may apply.	Forwarded to applicant
CDPHE – Water Quality Control Division		No response received	
Roxborough Water & Sanitation District	10/1/2025	See attached letter Summary: Exhibit LOE-EXH 1. The new membrane bioreactor building increases impervious area which will lead to more stormwater runoff potentially entering the RWSD Wastewater Overflow Pond with no method for diverting it away from the Overflow Pond. 2. The new storm line is not allowed to be discharged to Overflow Pond. The Overflow Pond use for emergency wastewater storage only. Also with gravel drive, the increase in potential sediment load into the Overflow Pond is not acceptable. Construction Drawing No. CG-101 1. Confirm revised grading at existing Roxborough utilities will maintain a pipe cover of at least 5 feet.	Forwarded to applicant
Denver Water Board		See attached letter Summary: Concerns regarding lawsuit between Dominion and Denver Water related to this project. Concerns regarding pending permits with NEPA and CDPHE. Concerns that the L&E does not show the full scope of work. Concerns that development may impact Denver Water property. Requested additional information on the plans	Forwarded to applicant
Rural Water Authority of Douglas County		No response received	

Referral Agency Response Report

Project Name: River Canyon Filing 2, 3rd Amendment, Lot 2A-1

Project File #: LE2025-018

Date Sent: 09/19/2025

Date Due: 10/02/2025

Xcel Energy-Right of Way & Permits	09/30/2025	See attached letter Summary: Noted existing facilities along and within the property lines. Provided information regarding required clearances, permitting, and easements.	
High Line Canal Conservancy		No response received	

Trevor Bedford

From: Chatfield Community Association <chatfieldcommunity@gmail.com>
Sent: Saturday, September 20, 2025 12:02 PM
To: Trevor Bedford
Subject: Referral LE2025-018, Dominion Wastewater Treatment Plant

Chatfield Community Association Mission

The mission of CCA is to preserve the character of the Chatfield Basin, and to ensure that development in the area at least meets all state and county regulations, has adequate water, doesn't adversely impact existing residents, and hopefully blends well with the existing semi-rural nature.

We emphasize objective, factual referral and public hearing comments when possible. But some views are inevitably subjective regarding quality of life, rural life, dark skies, and the like

tbedford@douglas.co.us

Trevor Bedford
Referral LE2025-018
River Canyon Filing 2, 3rd Amendment, Lot 2A-1

Trevor Bedford,

We have the following concerns and questions regarding the Chatfield Basin Water Reclamation Facility proposed refurbishment.

Approval of this application seems premature in as much as Dominion Water and Sanitation District (DWSD) does not appear to have a permit for the wastewater facility. Rules and regulations for the South Platte Basin are being updated, so plans submitted to the county may not meet new regulations when and if a permit is given to DWSD.

cdphe.colorado.gov

Backlogged or Awaiting Payment Projects (not in review)

Department of Public Health & Environment

Click to close dropdown

Backlog projects are in queue awaiting CDPHE staff availability. Once paid, projects enter the backlog at the back of the queue.

Entity Name	Entity ID	Case ID	Project Name	Type	Project Type	Status	Date Created	Project QC	County
DOMINION WATER AND SANITATION DISTRICT - CHATFIELD BASIN WATER RECLAMATION FACILITY	CO0041645	226718	SRF Chatfield Basin WRF Expansion	CW - Mod	SA Cap Change w Construction	Backlog	Apr 2, 2024	Paul Kim	Douglas
DOMINION WATER AND SANITATION DISTRICT - CHATFIELD BASIN WATER RECLAMATION FACILITY	CO0041645	226719	SRF Chatfield Basin WRF Expansion	CW - Mod	Design Review	Awaiting Payment	null	null	Douglas
DOVE CREEK TOWN OF	CO0117300	259652	MOR Review	DW - Mod	Internal	Backlog	Jul 27, 2025	Paul Kim	Dolores
DOVE CREEK TOWN OF	CO0117300	259692	PER Review TTHM	DW - Mod	Internal	Backlog	Aug 11, 2025	Paul Kim	Dolores
DURANGO CITY OF - DURANGO WWTF	CO0024082	238233	La Posta Lift Station	CW - Mod	Site App	Awaiting Payment	null	null	La Plata
DURANGO CITY OF - DURANGO WWTF	CO0024082	238234	La Posta Lift Station	CW - Mod	Design Review	Awaiting Payment	null	null	La Plata
EADS TOWN OF	CO0131400	259684	Facility Classification Review	DW - Mod	Internal	Backlog	Aug 7, 2025	Paul Kim	Kiowa

1 - 244 / 244

We have not seen an agreement with the State or Denver Water for a discharge permit. Plans submitted to the county may not meet requirements by the State or Denver Water for water quality. The location of the discharge facility could change from the submitted plan depending on the agreement with the State and Denver Water.

Is DWSD allowed to begin construction on the wastewater treatment plant prior to approval by the State?

How can the requirements from the county Douglas County Storm Drainage and Design be certain to be adequate when it does not appear that the State has issued requirements for the facility? A 100 year floodplain area borders part of the DWSD property. Shouldn't DWSD build their wastewater facility to a standard higher than 100 years? In the 2013 flood in Larimer and Boulder counties, several wastewater facilities were affected, causing water contamination for miles downstream. Plans for DWSD's wastewater plant should be built to a higher standard than 100 years in order to protect Chatfield Reservoir drinking water and waters downstream.

We do not see any discussion in this application about plans for reuse of wastewater. If wastewater is discharged into the Platte which has nearby diversions for drinking water and additional discharge water will flow into Chatfield Reservoir, a drinking water supply for a number of districts, we would think any discharge would have to be of a high quality. It is disappointing there is not a more forward thinking facility being designed such as a plan for a closed loop system for reuse. DWSD shows reuse water on only some of their water supply charts, making it unclear if DWSD will actually reuse any of their wastewater discharge. We do not see a permit for a diversion for DWSD to get their wastewater off of the Platte for that reuse.

Until regulations are finalized and permits are issued, this application seems premature and should not be approved.

Team CCA

Address changes have been recorded in the Douglas County address database. Existing facilities were transferred from Roxborough Water and Sanitation District to Dominion Water and Sanitation District. As a result, addresses have been revised.

DOMINION FACILITIES

Address Changes

- ~~11292~~ 11300 Caretaker Road
- ~~11284~~ 11306 Caretaker Road
- ~~11290~~ 11310 Caretaker Road
- ~~11276~~ 11314 Caretaker Road
- ~~11288~~ 11324 Caretaker Road

New Addresses

- 11318 Caretaker Road
- 11320 Caretaker Road

ROXBOROUGH FACILITIES

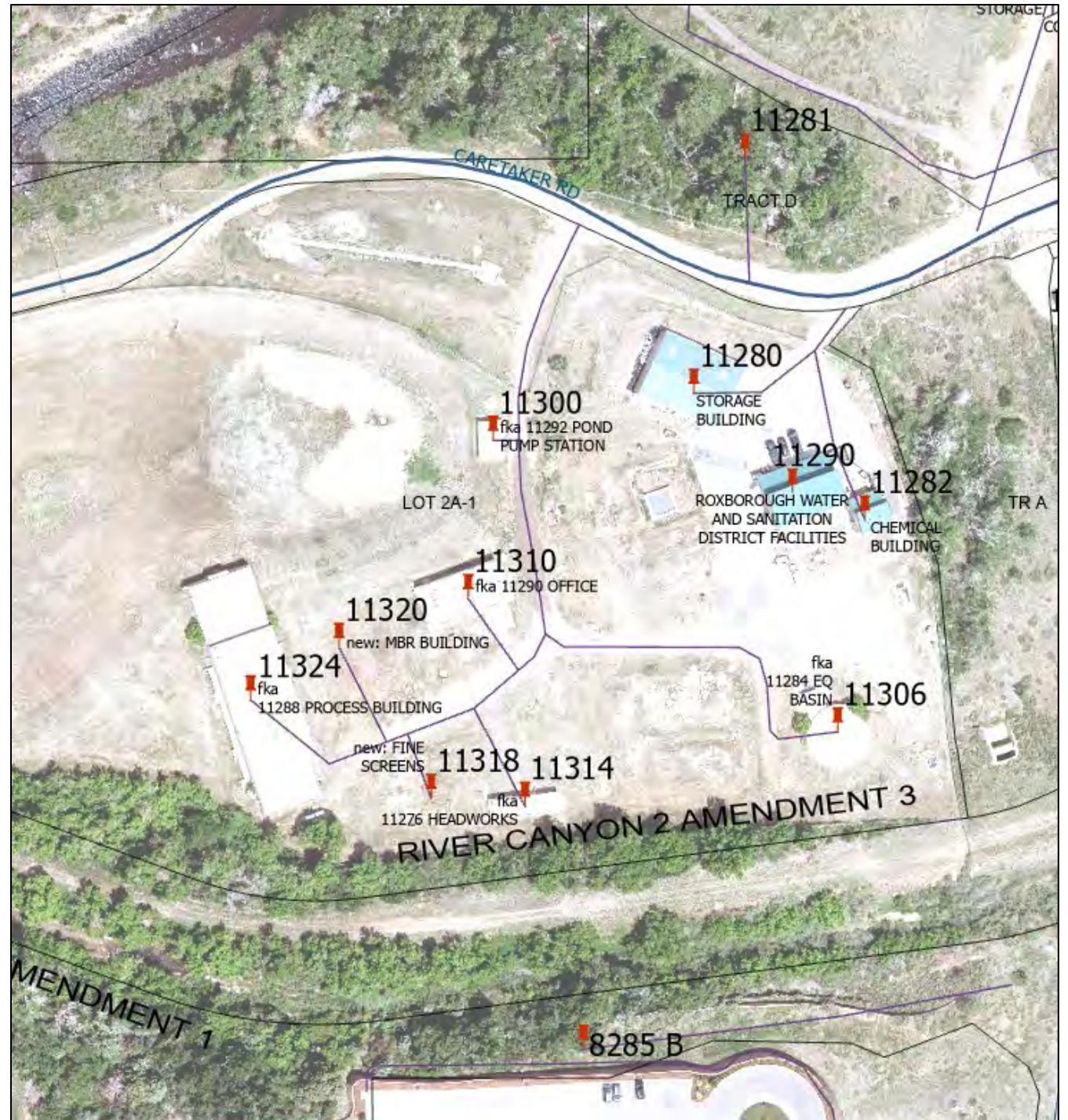
Existing Addresses

- 11280 Caretaker Road
- 11282 Caretaker Road

Moved Address

- 11290 Caretaker Road

Contact Douglas County at DCAddressing@douglas.co.us or 303.660.7411 with questions.





1600 West 12th Ave
Denver, CO 80204-3412
303.628.6000
denverwater.org

October 2, 2025

Douglas County
Department of Community Development
Attn: Trevor Bedford, by email to:
100 Third Street
Castle Rock, CO 80104

REFERRAL COMMENTS CASE NO. LE2025-018

Dear Trevor Bedford:

Denver Water staff has reviewed the Location and Extent referral for the Chatfield Basin Water Reclamation Facility and is providing the following comments. We own and operate property that is immediately adjacent to this plant and will be directly impacted by this project. Based on our review, we object to approval of LE2025-018 until the following comments have been resolved.

These comments are based on Denver Water's current understanding of the project and its current extent and design. Any modifications or changes to the project may/or more likely will impact Denver Water's comments. Moreover, Denver Water reserves the right to supplement and/or modify these comments to the extent further or different information becomes available to Denver Water. As a general matter, Denver Water objects to this project as it is incompatible with Denver Water's facilities and operations and to the extent it results in added costs to Denver Water rate payers to address negative impacts to its facilities and operations.

Comments:

Permits:

- The applicant is requesting to start work this month. We recommend Douglas County not approve any phase of the L&E until all NEPA and CDPHE permits are approved. Pending permits could have impacts on future phases.
- DWSD has initiated legal proceedings against Denver Water that impact the adjacent property and connected storm sewer, and effluent outfall easements that are pertinent to the work included in LE2025-018. Legal proceedings are active and related approvals should remain pending until the uses contended in LE2025-018 have been resolved.
- DWSD is proposing a S. Platte River diversion that will have major impacts on Denver Water property, facilities and operations (including a federal HCP) that will be tied into this treatment plant. These plans do not reflect the full scope of infrastructure proposed by DWSD associated with this project. A full project L&E should be prepared prior to approval.

Land Use:

- No parking, staging or storing related to this work shall occur on Caretaker Road (aka Tract D) and must be contained within the project site. DWSD shall keep Caretaker Road free and clear at all times. Heavy equipment, including a 90-ton crane and concrete trucks, are proposed to use Caretaker Road for this project. DWSD shall provide a mitigation plan for how to address dirt road maintenance needs at regular intervals during construction. DWSD will need to coordinate with Denver Water staff to maintain and restore the road to pre-existing conditions.
- No additional grading of Caretaker Road or Denver Water property is permitted. Dirt driveway improvements shall match existing grade at edge of road. Any new cut/fill over Caretaker Road will require a cross section to show amount of disturbance and additional approvals may be necessary.
- We cannot find evidence of an approved license across Denver Water property for the existing 18" RCP culvert and FES with riprap, connected to the stormwater pond with trickle channel. If no agreement was completed, a portion of this 18" pipe and culvert was installed on Denver Water property without authorization and may be removed. Identification of historic flow, existing discharge and proposed discharge on or across Denver Water property and all related facilities must be submitted for review and approval.
- We request additional clarification and location of a referenced 2nd storm sewer pipe on Denver Water property, for existing storm sewer flows from the lift station.
- Any new activity including utility installation, new access points, grading, landscaping, erosion control or similar activities on our property will require Denver Water's review and approval.

Wastewater Discharge:

- Denver Water has water quality concerns about the discharges from this plant. The drainage report does not adequately show that emergency overflow and water quality treatment will not adversely impact the S. Platte River and users.
- The application does not contain details regarding water quality treatment including PFAS treatment.

Other Impacts:

- We request a copy of the odor control plan.
- Lighting was not shown on the site plan. If any new lighting is proposed, we request updated site plan information regarding lights/photometry for review.

Please circulate these comments to the applicant. Additionally, please let us know when we can expect a response and an estimated timeline of this L&E process.

Sincerely,



Gina Begly

Real Estate Sr. Specialist

Property Management

gina.begly@denverwater.org

303-628-6219

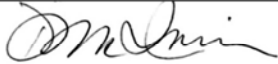
REFERRAL RESPONSE REQUEST – LOCATION AND EXTENT

Date sent: September 18, 2025

Comments due by: October 2, 2025

Project Name:	River Canyon Filing 2, 3 rd Amendment, Lot 2A-1– Location and Extent
Project File #:	LE2025-018
Project Summary:	Dominion Water & Sanitation District requests approval of a Location and Extent for the refurbishment and expansion of the Chatfield Basin Water Reclamation Facility.

Information on the identified development proposal located in Douglas County is enclosed. Please review and comment in the space provided.

<input type="checkbox"/> No Comment	
<input type="checkbox"/> Please be advised of the following concerns: _____	
<input checked="" type="checkbox"/> See letter attached for detail.	
Agency: Roxborough Village First HOA	Phone #: 720-854-4714
Your Name: Debbie McInnis <i>(please print)</i>	Your Signature: 
	Date: 10/1/2025

A public hearing on this request will be held before the Douglas County Planning Commission on Monday, October 6, 2025, at 6:00 pm. **This public hearing will be held on-line and in person. See the County website or contact the Planning Department for more information.**

Sincerely,

Trevor Bedford, AICP, Senior Planner

September 30, 2025

Mr. Trevor Bedford

Planning Services

100 Third Street

Castle Rock, Colorado 80104

tbedford@douglas.co.us

Re: LE2025-18, River Canyon Filing 2, 3rd Amendment, Lot 2A-1

Dear Mr. Bedford and the Douglas County Commissioners,

The Roxborough Village First HOA is concerned about the proposed Chatfield Basin Water Reclamation Facility refurbishment. It is our understanding that Dominion Water and Sanitation District does not have a permit for the wastewater facility and is currently involved in a lawsuit with Denver Water for access. We feel that Dominion needs to resolve these issues prior to this application to being considered. We know that they are trying to expedite the logistics of this project to take advantage of ARPA funds. Why are ARPA funds being used to fund the Dominion Wastewater Treatment Plant? Since Louviers was a part of the ARPA agreement, why are the funds still available since Dominion has walked away from the water agreement with Louviers? It is our understanding that those funds should support projects that help the entire County. Will Dominion be allowed to begin this project prior to having approval by the State?

We are also very concerned about this facility being located near a 100-year floodplain and what design measures will be taken to ensure the wastewater facility won't be impacted during a significant rain event. Our weather is becoming more and more unpredictable and it's very probable that we could see even a 1,000-year storm. We are very concerned about water contamination from this facility and how it will impact Chatfield Reservoir and those downstream.

We request that this application not be approved until the permit is issued from the State and the eminent domain case is resolved with Denver Water.

Sincerely,

A handwritten signature in black ink, appearing to read "Deborah McInnis", written in a cursive style.

Deborah McInnis

Roxborough Village First HOA

September 24, 2025

Trevor Bedford
100 Third St.
Castle Rock, CO 80104

RE: LE2025-018

Dear Trevor Bedford,

Thank you for the opportunity to review and comment on the referenced Location and Extent application. Douglas County Health Department (DCHD) staff have reviewed the application for compliance with pertinent environmental and public health regulations. After reviewing the application, DCHD has the following comment.

On-Site Wastewater Treatment System (OWTS) – Abandonment

Proper wastewater management promotes effective and responsible water use, protects potable water from contaminants, and provides appropriate collection, treatment, and disposal of waste, which protects public health and the environment. The proposal by Stantec on behalf of the Dominion Water and Sanitation District (DWSD) to refurbish and expand the Chatfield Basin Water Reclamation Facility (CBWRF) to provide wastewater treatment and surface water discharge for the communities of Sterling Ranch, The Range, and Louvier is beneficial. Our records indicate the presence of multiple On-Site Wastewater Treatment Systems (OWTS) within the aforementioned communities that may be intended to connect into this water district. Any existing OWTS shall be abandoned in accordance with the current regulations adopted by the local Board of Health. DCHD must be notified in writing once the system has been properly abandoned. For more information, or to submit the notification, the applicant may contact Douglas County Health Department at the time of development. More information is available at <https://www.douglas.co.us/health-department/environmental-health/>.

Please feel free to contact me at 720-643-2488 or ssicard@douglas.co.us if you have any questions about our comments.

Sincerely,



Skyler Sicard
Assistant Director of Environmental Health
Douglas County Health Department



Right of Way & Permits

1123 West 3rd Avenue
Denver, Colorado 80223
Telephone: 303.285.6612
violeta.ciocanu@xcelenergy.com

September 30, 2025

Douglas County Planning Services
100 Third Street
Castle Rock, CO 80104

Attn: Trevor Bedford

**RE: River Canyon Filing 2, 3rd Amendment, Lot 2A-1 - Location and Extent
Case # LE2025-018**

Public Service Company of Colorado's (PSCo) Right of Way & Permits Referral Desk has reviewed the documentation for **the above-mentioned project**. Please be aware PSCo owns and operates existing both overhead and underground electric distribution facilities along and within property lines.

The property owner/developer/contractor must complete the application process for any new natural gas or electric service, or modification to existing facilities via xcelenergy.com/InstallAndConnect. It is then the responsibility of the developer to contact the Xcel Designer assigned to the project for approval of design details.

Note that proper clearances must be maintained including ground cover over buried facilities that should not be modified from original depths. In other words, if the original cover is changed (by less or more), PSCo facilities must be raised or lowered to accommodate that change. Bear in mind structures are not allowed over buried facilities. Contact Colorado 811 for locates before excavating. Use caution and hand dig when excavating within 18-inches of each side of the marked facilities. Please be aware that all risk and responsibility for this request are unilaterally that of the Applicant/Requestor

If additional easements need to be acquired by separate PSCo document (i.e. transformer), a Right-of-Way Agent will need to be contacted by the Designer.

Violeta Ciocanu (Chokanu)
Right of Way and Permits
Public Service Company of Colorado dba Xcel Energy
Office: 303-285-6612 – Email: violeta.ciocanu@xcelenergy.com



AT&T LONG LINE FIBER OPTICS

PROJECT AREA

Platte Canyon

South Platte River

High Line Canal

Waterton Rd

W Waterton Rd

Platte Canyon Reservoir

Brush Creek





October 1, 2025

Douglas County Planning Services
Attention: Trevor Bedford
100 Third Street
Castle Rock, CO 80104

RE: LE2025-018, River Cayon Filing 2, 3rd Amendment, Lot 2A-1

Dear Mr. Pesicka,

TST Infrastructure, LLC (TST) is the Roxborough Water and Sanitation District Engineer. TST has reviewed the Location and Extent documents submitted for referral review. The documents were reviewed for impacts to existing facilities. The following are comments on the documents reviewed:

Exhibit LOE-EXH

1. The new membrane bioreactor building increases impervious area which will lead to more stormwater runoff potentially entering the RWSD Wastewater Overflow Pond with no method for diverting it away from the Overflow Pond.
2. The new storm line is not allowed to be discharged to Overflow Pond. The Overflow Pond use for emergency wastewater storage only. Also with gravel drive, the increase in potential sediment load into the Overflow Pond is not acceptable.

Construction Drawing No. CG-101

1. Confirm revised grading at existing Roxborough utilities will maintain a pipe cover of at least 5 feet.

Should you have any questions, please feel free to contact me at 303-799-5197.

Sincerely,

Michael J. Gerstner, P.E.
TST Infrastructure, LLC

CC: Mike Marcum, General Manager for Roxborough Water and Sanitation District



COLORADO
Department of Public Health & Environment

Dedicated to protecting and improving the health and environment of the people of Colorado

Trevor Bedford
Douglas County Planning Services
100 Third Street Castle Rock, CO 80104

VIA EMAIL

RE: Douglas County eReferral (Project Number LE2025-018) Is Ready For Review

Dear Trevor Bedford,

The Colorado Department of Public Health and Environment’s Air Pollution Control Division (APCD or Division) received a request for an air quality administrative review concerning the proposed Chatfield Basin Water Reclamation Facility project as described in your correspondence dated September 19, 2025. The Division has reviewed the project letter and respectfully offers the following comments. Please note that the following Air Quality Control Commission (AQCC) regulations may not be inclusive of the regulations the proposed project will be subject to. It is the responsibility of the involved parties to determine what regulations they are subject to and follow them accordingly.

VOC and Hazardous Air Pollutants (HAPS) Analysis for Small Wastewater Projects

An Air Pollutant Emissions Notice (APEN) for VOC and HAPS may be required depending on the existing and new throughput of your facility. Municipal wastewater projects may use the following chart to estimate VOC and HAPs emissions in order to determine if they are required to submit an APEN under Regulation Number 3.

Pollutant	Emission Factor Lb/MM gallon	Reporting Threshold
VOC	3.49414	1 ton/year OR 2 ton/year
Hexamine	0.41207	250 lbs/year
Perchloroethylene	0.00890	
Benzene	0.22873	
Toluene	0.00267	
Total Xylene	0.00267	
Ammonia	19.0000	

Odor

All businesses in Colorado are subject to AQCC Regulation Number 2 (Odor Emission) and a permit may be required for the installation of odor control equipment. Please refer to AQCC Number 2 for guidance on odor suppression actions. You may also view the complete regulatory language at <https://cdphe.colorado.gov/aqcc-regulations>.

Land Development



We also note that projects similar to this proposal often involve land development. Under Colorado air quality regulations, land development refers to all land clearing activities, including but not limited to land preparation such as excavating or grading, for residential, commercial or industrial development. Land development activities release fugitive dust, a pollutant regulated by the Division. Small land development activities are not subject to the same reporting and permitting requirements as large land activities. Specifically, land development activities that are less than 25 contiguous acres and less than 6 months in duration do not need to report air emissions to the Division. It is important to note that even if a permit is not required, fugitive dust control measures including the Land Development APEN Form APCD-223 must be followed at the site. Fugitive dust control techniques commonly included in the plan are included in the table below.

Control Options for Unpaved Roadways	
Watering	Use of chemical stabilizer
Paving	Controlling vehicle speed
Graveling	
Control Options for Mud and Dirt Carry-Out Onto Paved Surfaces	
Gravel entry ways	Washing vehicle wheels
Covering the load	Not overfilling trucks
Control Options for Disturbed Areas	
Watering	Application of a chemical stabilizer
Revegetation	Controlling vehicle speed
Compaction	Furrowing the soil
Wind Breaks	Minimizing the areas of disturbance
	Synthetic or Natural Cover for Slopes

Please refer to the website <https://cdphe.colorado.gov/apens-and-air-permits> for information on land use APENs and permit forms. Click on “Land Development” to access the land development specific APEN form. Please contact KC Houlden, Construction Permits Unit Supervisor, at 303-692-4092, kenneth.houlden@state.co.us if you have any specific questions about APENs and permit forms.

Demolition and Redevelopment

In Colorado there are regulations regarding the appropriate removal and handling of asbestos and lead-based paint as part of a demolition, renovation, or remodeling project. These regulations are presented AQCC Number 8 (asbestos) and Number 19 (lead-based paint) <https://cdphe.colorado.gov/aqcc-regulations>.

These regulations may require the use of, or inspection by, companies or individuals that are certified to inspect or remove these hazards prior to renovation or demolition. The Division must also be notified prior to beginning any asbestos abatement or demolition activities. For additional guidance on these regulations and lists of certified companies and individuals, please visit www.colorado.gov/cdphe/asbestos and www.colorado.gov/cdphe/lead for lead-based paint. An asbestos renovation and demolition fact sheet, inspection flowchart, and brochure are attached to my email response for your review. If you have any questions about Colorado’s asbestos and lead-based paint regulations or are unsure whether you are subject to them please call the Indoor Environment Program at cdphe.asbestos@state.co.us or 720-507-5136.



If you have any other questions or need additional information, please use the contact info listed above, or e-mail or call me directly. Thank you for contacting the Air Pollution Control Division about your project.

Sincerely,
Brendan Cicione
Air Quality and Transportation Planner
General SIP Unit
Air Pollution Control Division
Colorado Department of Public Health and Environment
303-691-4104 // brendan.cicione@state.co.us





Colorado Department of Public Health & Environment

Air Pollution Control Division
Indoor Environment Program

4300 Cherry Creek Drive South,
Denver, Colorado, 80246

303-692-3100
303-782-0278, fax

cdphe.asbestos@state.co.us

www.colorado.gov/cdphe/asbestos



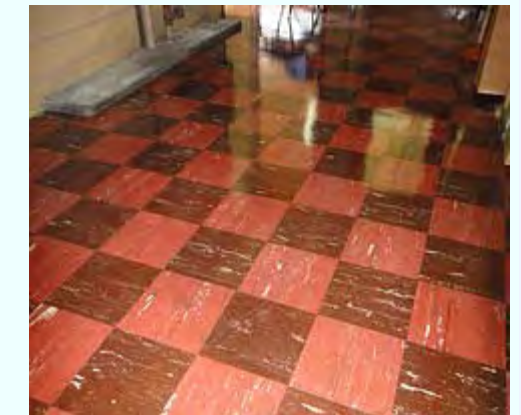
Colorado law requires
asbestos testing prior
to renovation or
Demolition!



www.colorado.gov/cdphe/asbestos

What is asbestos?

- Asbestos is a naturally occurring mineral fiber mined for its useful properties.
- Asbestos is a known carcinogen and can cause respiratory disease.
- There is a common misconception that asbestos use was completely banned in the United States.
- It is currently legal to manufacture certain asbestos containing materials (ACMs) and some ACMs are still being imported today.
- Asbestos fibers have been added to many different building materials regardless of the date of construction.



How to get your building tested:

- Building materials require asbestos testing or must be assumed to be asbestos containing.
- Testing must be done by a Colorado certified Asbestos Building Inspector who can be found through: www.colorado.gov/cdphe/asbestos-consulting-firms
- Contact CDPHE to determine if testing is required. In most cases, testing will be required.

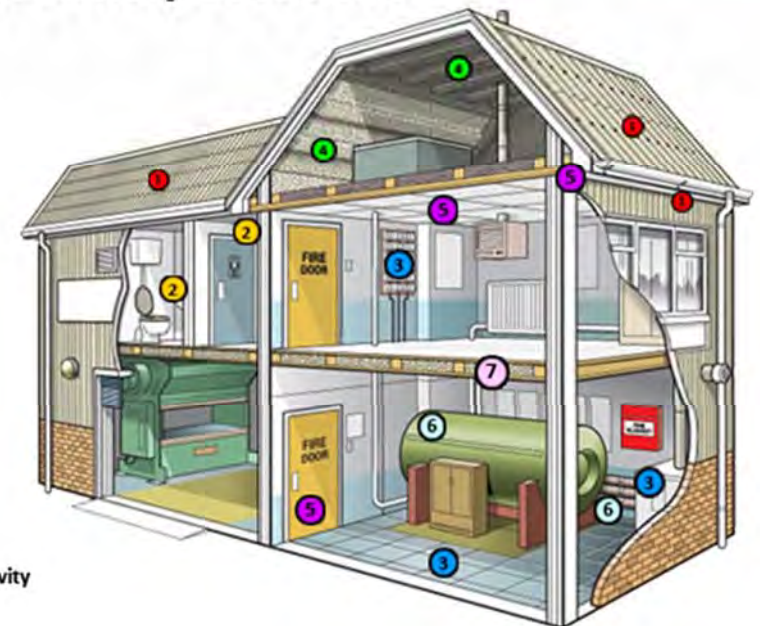


Some places asbestos containing materials can be found:

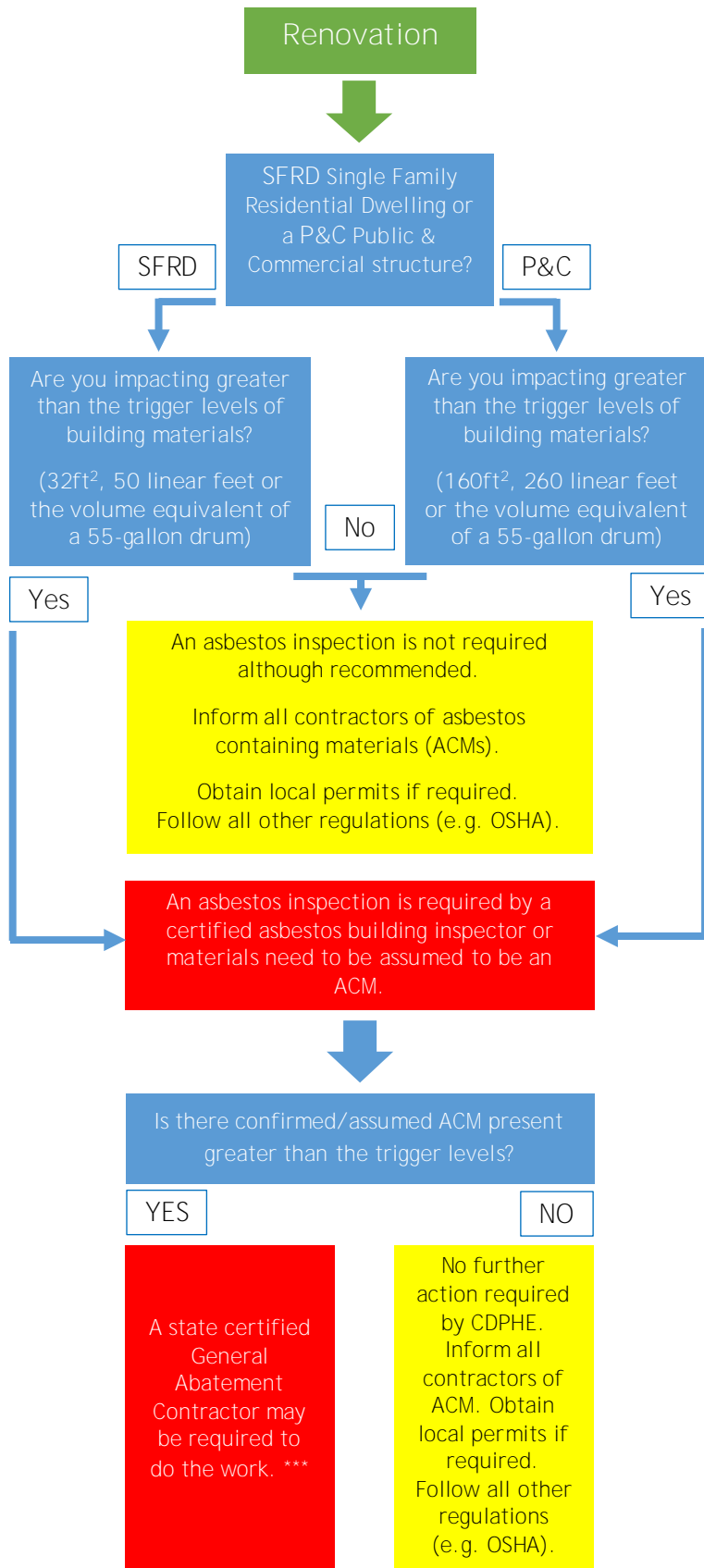
1. Cement like products such as shingles and siding.
2. Walls/ceilings (drywall, plaster, etc.), skim coating, texturing, joint compounds and acoustical texturing "popcorn ceiling".
3. Floor tiles, sheet vinyl, linoleum and their associated adhesives.
4. Sprayed on fireproofing seen on structural beams and decking.
5. Ceiling tiles, fire doors and soffits.
6. Insulation on pipes and boilers, including pipe/duct wrap.
7. Blown in insulation such as vermiculite.

Asbestos Materials: Likely Locations

- 1 Asbestos Cement Products
- 2 Textured Coatings
- 3 Floor Tiles, Textiles & Composites
- 4 Sprayed coatings on walls, beams/columns
- 5 Asbestos insulating board
- 6 Lagging
- 7 Loose Asbestos in ceiling or floor cavity



Is an Asbestos Inspection Required?



Demolition

Asbestos inspection & state demolition permit required. Asbestos inspection must be conducted by a certified asbestos building inspector.

Definitions and Links:

Renovation - Altering in any way one or more components in or on a facility. Operations in which load-supporting structural members are wrecked or removed are demolitions. Examples of renovation work include to replacement or repair of mechanical ventilation systems, pipes, ceilings, walls, flooring (including floor tiles) and insulating materials. Renovation may also include the construction of additions or the modification of existing components where tie-ins, joints or other intersection may occur.

Demolition - The wrecking or removal of any load-supporting structural member of a facility together with any handling of debris related to the demolition, the intentional burning of any facility, or moving a facility from a permanent foundation.

Asbestos Consulting Firms & Asbestos Building Inspectors can be found at: <https://www.colorado.gov/cdphe/asbestos-consulting-firms>

Demolition notification application forms can be found under the forms tab at: <https://www.colorado.gov/cdphe/asbestos>

*** Some ACMs may only require notification or may be exempt from the regulation. Homeowners who do not intend to rent, sell or demolish their primary residence may have additional options. Please contact CDPHE for further details.



ASBESTOS - RENOVATION AND DEMOLITION

Are you Remodeling, Renovating or Demolishing?

You may be subject to State and Federal Regulations requiring an inspection for asbestos. Avoid penalties and delays: If you are impacting greater than the trigger levels of suspect asbestos-containing materials (“ACM”) – you must have your project inspected for ACM by a Colorado-certified asbestos building inspector before commencing work.

It is Dangerous and Illegal to Improperly Disturb ACM!

Asbestos can be found in these and many other common building materials: Ceiling textures, vinyl floor coverings and mastic, boiler and pipe insulation, heating and cooling duct insulation, ceiling tile, roofing products, clapboard shingles, etc. These materials may be regulated - a certified asbestos building inspector can determine which materials contain asbestos and which are regulated.

For ALL Renovation Projects:

- Buildings of **any** age may contain ACM; even those newly built may have ACM.
- **Inspection:** If the structures/components to be disturbed exceed the trigger levels, they **must be inspected for asbestos** by a Colorado-certified asbestos building inspector, unless the building was built after October 12, 1988, **AND** the architect or engineer who built it signs and submits documentation showing that no ACM was specified or used in the construction of the building – then no inspection is needed. Asbestos Consulting Firms and asbestos building inspectors can be found in the yellow pages of most telephone books under the heading “Asbestos Consulting and Testing” or go to our web site for a current list: www.colorado.gov/cdphe/asbestos.
- If the amount of ACM to be disturbed exceeds the following trigger levels, then an asbestos abatement contractor must remove the material:
 - **Single-Family Residential Dwellings (“SFRD”)** - the trigger levels are: 50 linear feet on pipes; 32 square feet on other surfaces; or the volume equivalent of a 55-gallon drum.
 - **Public and Commercial Buildings** (other than SFRDs) - the trigger levels are: 260 linear feet on pipes; 160 square feet on other surfaces; or the volume equivalent of a 55-gallon drum.
- Under many circumstances, a Colorado-certified General Abatement Contractor (GAC) must remove ACM that is regulated or may become regulated before it is disturbed by renovation or demolition activities. GACs can be found in the yellow pages of most telephone books under the heading, “Asbestos Abatement” or go to our web site for a current list.
- **Notification:** A written application to CDPHE for a notice/permit may be required, along with payment of a fee and a **ten (10) working-day notification period (emergencies may be excluded)** before the removal (abatement) of regulated asbestos-containing materials. **ALL** ACM waste must be disposed of at an approved asbestos waste disposal site – regardless of the quantity or the necessity for a notice/permit.

Demolitions, Destructive Salvage, House Moving

If you demolish, perform destructive salvage, perform de-construction, burn, destroy, dismantle, dynamite, implode, knock down, level, pull down, pulverize, raze, tear down, wreck all of a structure or structural components, or you move a house, you may be subject to State and Federal regulations **even when there is NO asbestos in the facility**. **Demolition means:** the wrecking or taking out of any load-supporting structural member of a facility together with any related handling operations or the intentional burning of any facility.

For ALL Demolition Projects:

- **Inspection:** the building or area of the building to be demolished ***must be inspected for asbestos*** by a Colorado-certified asbestos inspector. Asbestos Consulting Firms and asbestos building inspectors can be found in the yellow pages of most telephone books under the heading “Asbestos Consulting and Testing” or go to our web site for a current list:
- **Asbestos Removal** (if necessary) may have to be performed by a Colorado-certified GAC. Removal, in accordance with Regulation No. 8, Part B, is required if the amount of asbestos-containing material that is friable or will become friable during demolition exceeds the trigger levels.
- **A Demolition Notification Application Form** must be submitted to the CDPHE, **even if no asbestos was found during the inspection**, along with payment of a notification fee and a **ten (10) working-day notification period** that is required before the demolition can commence.

During Demolition:

- Recycling of materials, such as concrete or wood, that are bonded or contaminated with asbestos-containing material (ACM), such as floor tile or mastic, is NOT permitted.
- Demolition of a building that has non-friable asbestos-containing vinyl asbestos tile (VAT) or tar-impregnated roofing materials remaining must be completed without causing the asbestos-containing materials to become friable. Concrete floors covered with floor tile shall be removed in large sections if possible. Operations such as crushing, pneumatic jacking, etc. of materials containing asbestos are not permitted.
- When imploding or burning a structure, ALL asbestos-containing material, regardless of type or quantity, **MUST** be removed prior to demolition.

For More Information or Forms, please contact:

Asbestos Compliance Assistance Group

Phone: (303) 692-3100

Fax: (303) 782-0278

Toll Free: 1-800-886-7689

Web page: <http://www.colorado.gov/cdphe/asbestos>

Email address: cdphe.asbestos@state.co.us

Have your project inspected by a Colorado-certified asbestos building inspector before you begin renovation or demolition activities

Violation of asbestos regulations can result in monetary penalties and project delays.

October 1, 2025

Matt Padgett
Authorized Representative
Dominion Water & Sanitation District
9250 East Costilla Avenue
Greenwood Village, CO 80012

DV 2025-425

Subject: River Canyon Filing #2 – 3rd Amendment – Lot 2A-1 – Location & Extent

Dear Matt,

Plan Review Summary:

Submitted to Engineering - 9/18/25
Comments Sent Out - 10/1/25

Engineering has reviewed this project and have the following concerns and comments:

Location & Extent Comments

Comment #1-Engineering doesn't have any concerns regarding the proposed location & extent.

Comment #2-The following items will need to be submitted for review and approval prior to permits being issued for the project:

- Construction Plans (submitted and redlines are provided)
- Phase III Drainage Report (submitted and acceptable as submitted)
- GESC Plans (submitted and redlines are provided)
- GESC Report (submitted and acceptable as submitted)

If you have any questions, please give me a call.

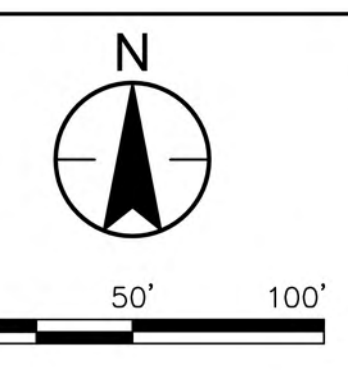
Sincerely,



Chuck Smith
Development Review Engineer

cc: Trevor Bedford, AICP; Senior Planner

DV25425



GENERAL SHEET NOTES

- SEE COVER SHEET OF DOUGLAS COUNTY GESC STANDARD NOTES AND DETAILS (SHEET 1 OF 3) FOR LEGEND OF BMP NAMES AND SYMBOLS.
- ALL UTILITIES SHALL BE PROTECTED IN PLACE UNLESS SHOWN OTHERWISE.



if the RRC's are existing they need to be labeled if they are proposed - include the length & depth dimensions

GESC PLANS PREPARED BY:		DATE	PE NUMBER
ZAK SARGENT, PE	STANTEC	AUG 18, 2025	66476

ASSISTANT DIRECTOR OF DEVELOPMENT REVIEW

DATE

THESE CONSTRUCTION DRAWINGS HAVE BEEN REVIEWED BY DOUGLAS COUNTY FOR GRADING, EROSION AND SEDIMENT CONTROL IMPROVEMENTS ONLY.

ENGINEERING DIVISION ACCEPTANCE BLOCK

Stantec
410 7th Street, Suite 1400
Denver, CO 80202
Tel: +1.303.295.1717
www.stantec.com

Revision	By	App'd	YYY.MM.DD

Client/Project
DOMINION WATER SANITATION DISTRICT
CHATFIELD BASIN WRF REFURBISHMENT
11310 CARETAKER RD.
LITTLETON, CO 80125

Project No.: 181301899
File Name: 01899_WF3_GESC_002

Scale: NTS

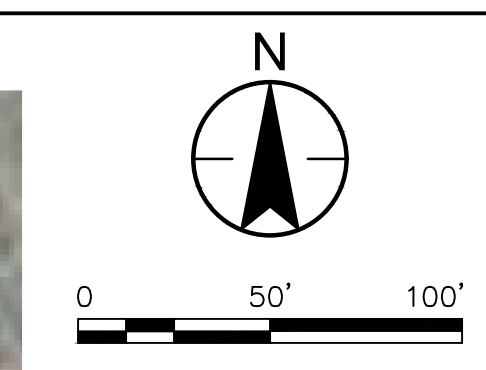
Dwn.	Dygn.	Chkd.	YYY.MM.DD

Date: 2025.08.01

Initial
INITIAL GESC SITE PLAN

Revision: _____
Drawing No.
G-002

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ORIGINAL SHEET - ANSI D



- ### GENERAL SHEET NOTES
- SEE COVER SHEET OF DOUGLAS COUNTY GESC STANDARD NOTES AND DETAILS (SHEET 1 OF 3) FOR LEGEND OF BMP NAMES AND SYMBOLS.
 - SHADED BMPs WERE INSTALLED IN THE INITIAL OR INTERIM GESC DRAWING AND, UNLESS OTHERWISE INDICATED, SHALL BE LEFT IN PLACE IN UNTIL REVEGETATION ESTABLISHMENT IS APPROVED BY THE COUNTY.
 - SEE CONSTRUCTION PLANS FOR DETAILS OF PERMANENT DRAINAGE FACILITIES SUCH AS DETENTION FACILITIES, CULVERTS, STORM DRAINS, AND OUTLET PROTECTION.

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 410 7th Street, Suite 1400
 Denver, CO 80202
 Tel: +1.303.955.1717
 www.stantec.com



GESC PLANS PREPARED BY:

ZAK SARGENT, PE	STANTEC	AUG 18, 2025	66476
DATE	PE NUMBER		

ASSISTANT DIRECTOR OF DEVELOPMENT REVIEW

DATE

THESE CONSTRUCTION DRAWINGS HAVE BEEN REVIEWED BY DOUGLAS COUNTY FOR GRADING, EROSION AND SEDIMENT CONTROL IMPROVEMENTS ONLY.

ENGINEERING DIVISION ACCEPTANCE BLOCK

Consultant

Revision	By	App'd	DATE
0	TYMM/DD		
1	TYMM/DD		
2	TYMM/DD		
3	TYMM/DD		
4	TYMM/DD		
5	TYMM/DD		
6	TYMM/DD		
7	TYMM/DD		
8	TYMM/DD		
9	TYMM/DD		

Permit/Seal

Client/Project
 DOMINION WATER
 SANITATION DISTRICT
 CHATFIELD BASIN WRF
 REFURBISHMENT
 11310 CARETAKER RD,
 LITTLETON, CO 80125

Project No.: 181301899

File Name: 01899_WF3_GESC_004

Scale: NTS

CS	CS	SR	2025.08.01
Dwn.	Dgln.	Chkd.	TYMM/DD

Title

FINAL GESC
SITE PLAN

Revision: _____

Drawing No.

G-004

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CHATFIELD BASIN WATER RECLAMATION FACILITY REFURBISHMENT

WORK PACKAGE 3

AUGUST 2025

SHEET	DRAWING NUMBER	DRAWING TITLE
L&E		
1	G-001	COVER
2	G-002	ABBREVIATIONS
3	G-003	SYMBOLS
4	C-001	GENERAL NOTES AND SYMBOLS
5	C-002	STANDARD DETAILS -I
6	C-003	STANDARD DETAILS -I
7	C-004	LOCATION CONTROL PLAN
8	C-101	OVERALL SITE PLAN
9	C-102	ENLARGED SITE PLAN - AREA 1
10	C-103	ENLARGED SITE PLAN - AREA 2
11	C-104	ENLARGED SITE PLAN - AREA 3
12	CG-101	OVERALL GRADING PLAN
13	CG-102	ENLARGED GRADING PLAN - AREA 1
14	CG-103	ENLARGED GRADING PLAN - AREA 2
15	CG-104	ENLARGED GRADING PLAN - AREA 3
16	CU-101	OVERALL YARD PIPING KEYMAP
17	CU-102	ENLARGED UTILITY PLAN AREA 1
18	CU-103	ENLARGED UTILITY PLAN AREA 2
19	C-202	PIPING PROFILES 1-3
20	C-203	PIPING PROFILES 4-6
21	C-204	PIPING PROFILE
22	C-205	PIPING PROFILE
23	C-207	PIPING PROFILE
24	C-208	PIPING PROFILE

CONTACT INFORMATION

OWNER

DOMINION WATER & SANITATION DISTRICT
 9250 E COSTILLA AVE, GREENWOOD VILLAGE, CO 80112
 ANDREA COLE (GENERAL MANAGER)
 EMAIL: ANDREA.COLE@DOMINIONWSD.COM
 PHONE: (720) 556-6840

MATT PADGETT (CONSTRUCTION MANAGER)
 EMAIL: MATT.PADGETT@DOMINIONWSD.COM
 PHONE: (720) 446-9141

ENGINEER

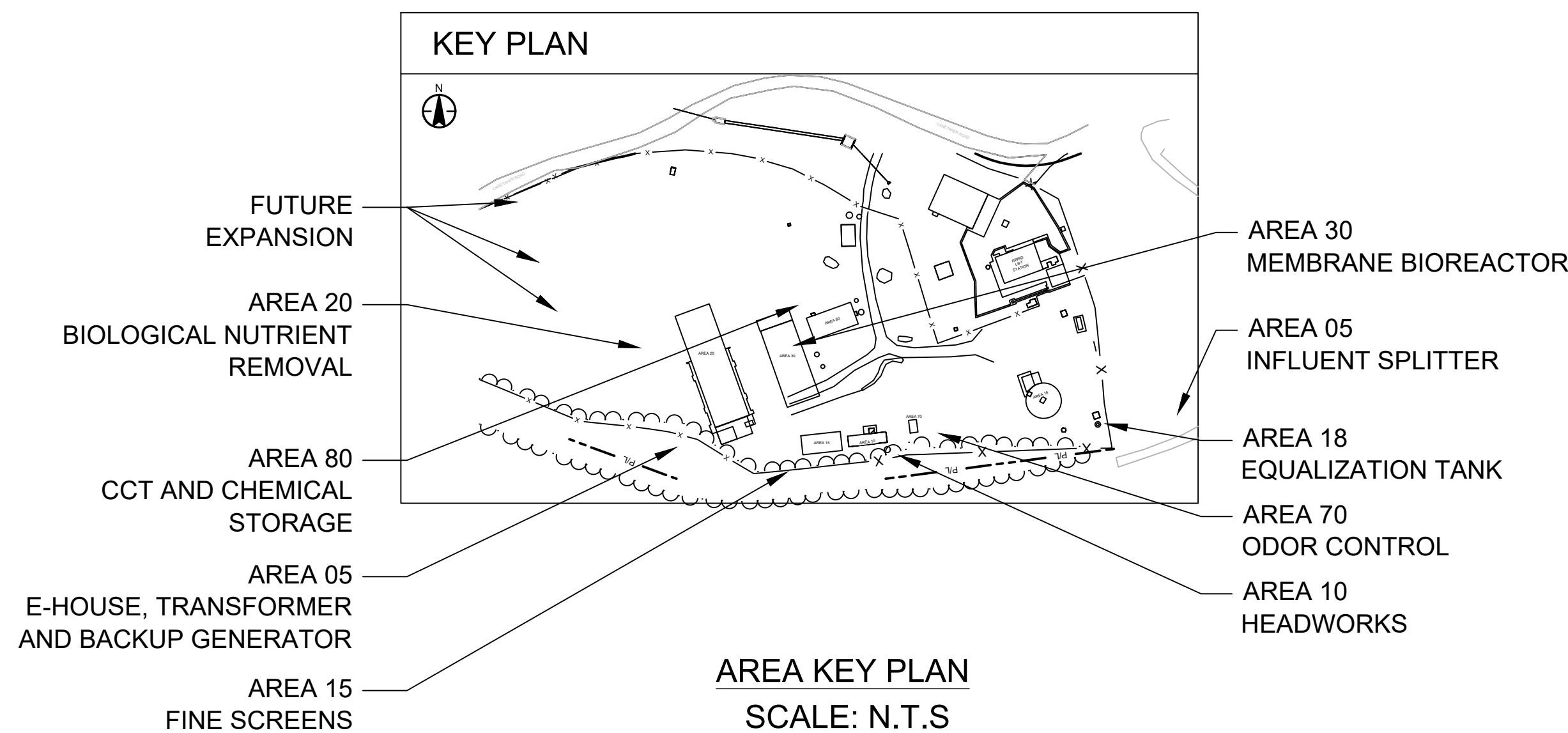
STANTEC CONSULTING SERVICES INC.
 410 17TH ST, SUITE 1500, DENVER, CO 80022
 MATTHEW REIMANN (PROJECT MANAGER)
 EMAIL: MATTHEW.REIMANN@STANTEC.COM
 PHONE: (520) 975-2727

CONTRACTOR

PCL CIVIL CONSTRUCTORS INC.
 2000 S COLORADO BLVD, SUITE 2-500, DENVER, CO 80222
 JEFF SCHEBLE (PROJECT MANAGER)
 EMAIL: JSCHBLE@PCL.COM
 PHONE: (720) 840-3271



LOCATION PLAN
 SCALE: N.T.S



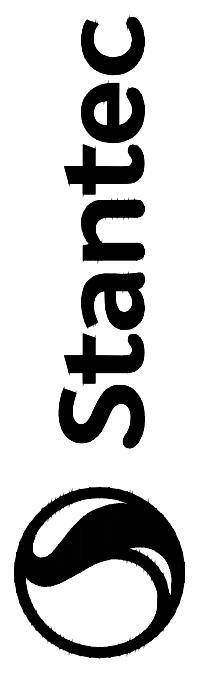
AREA KEY PLAN
 SCALE: N.T.S

THE CONSTRUCTION PLANS INCLUDED HEREIN WERE PREPARED UNDER MY DIRECT SUPERVISION IN ACCORDANCE WITH THE REQUIREMENTS OF THE ROADWAY DESIGN AND CONSTRUCTION STANDARDS AND STORM DRAINAGE DESIGN AND TECHNICAL CRITERIA OF DOUGLAS COUNTY, AS AMENDED.

CIVIL CONSTRUCTION PLANS PREPARED BY:

ZAK SARGENT, PE	STANTEC	AUG 18, 2025	66476
DATE	PE NUMBER		

ASSISTANT DIRECTOR OF DEVELOPMENT REVIEW			
DATE			
THESE CONSTRUCTION DRAWINGS HAVE BEEN REVIEWED BY DOUGLAS COUNTY FOR LOCATION AND EXTENTS PERMIT ONLY.			
ENGINEERING DIVISION ACCEPTANCE BLOCK			



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Consultant

Revision	By	App'd	YYMMDD
0			YYMMDD

Issued	By	App'd	YYMMDD
0			YYMMDD

Permit/Seal

Client/Project
 DOMINION WATER
 SANITATION DISTRICT
 CHATFIELD BASIN WRF
 REFURBISHMENT
 11310 CARETAKER RD,
 LITTLETON, CO 80125

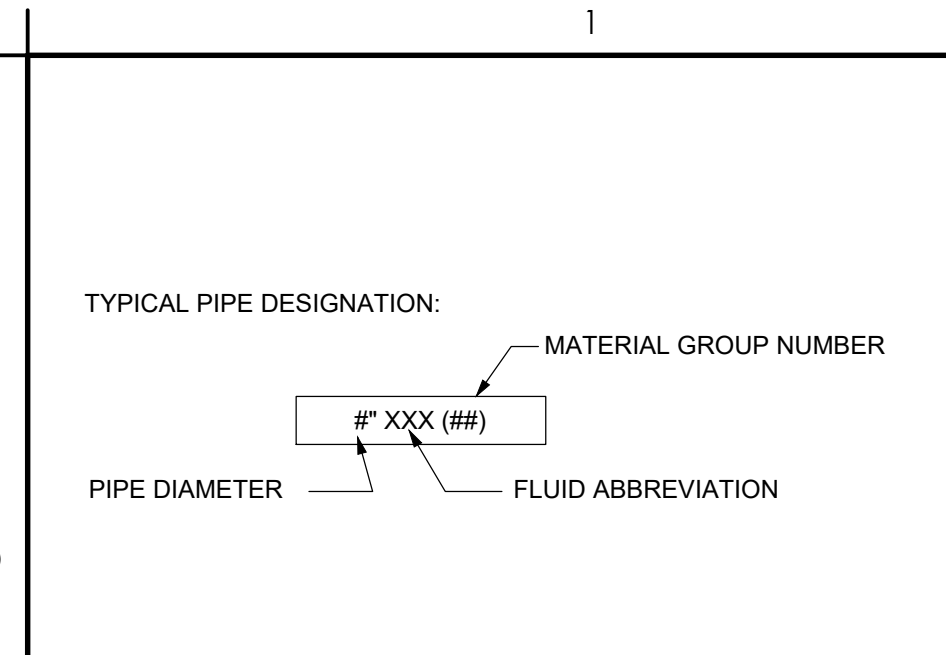
Project No.: 181301899
 File Name: 01899_G000_001-TEMP
 Scale: NTS

KN	MCR	SRT	2025.08.01
Dwn.	Dsgn.	Chkd.	YYMMDD

Title
 GENERAL
 COVER

Revision:
 Drawing No.

G-001

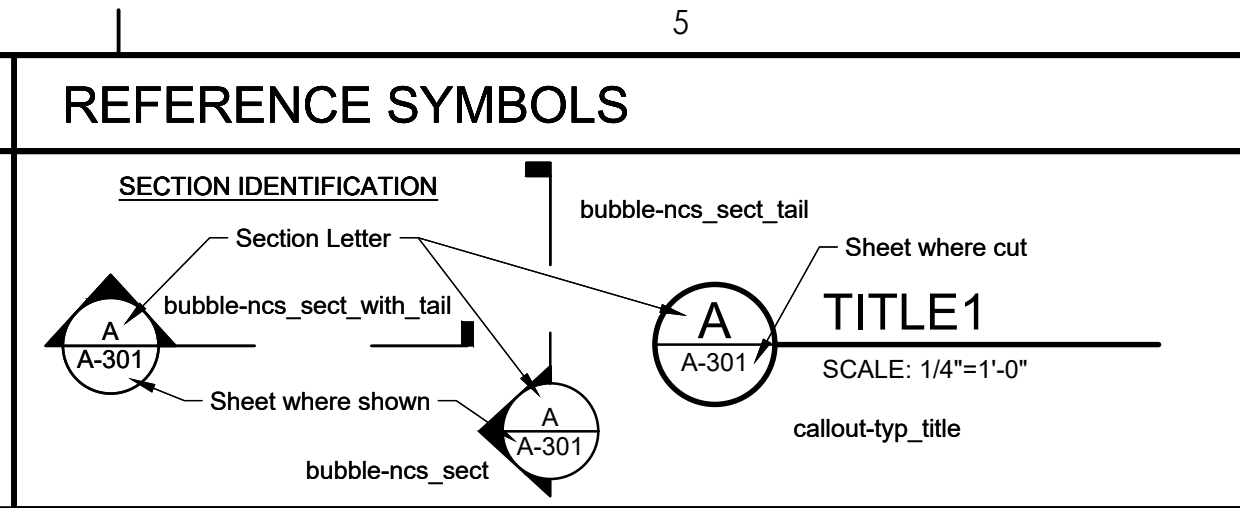
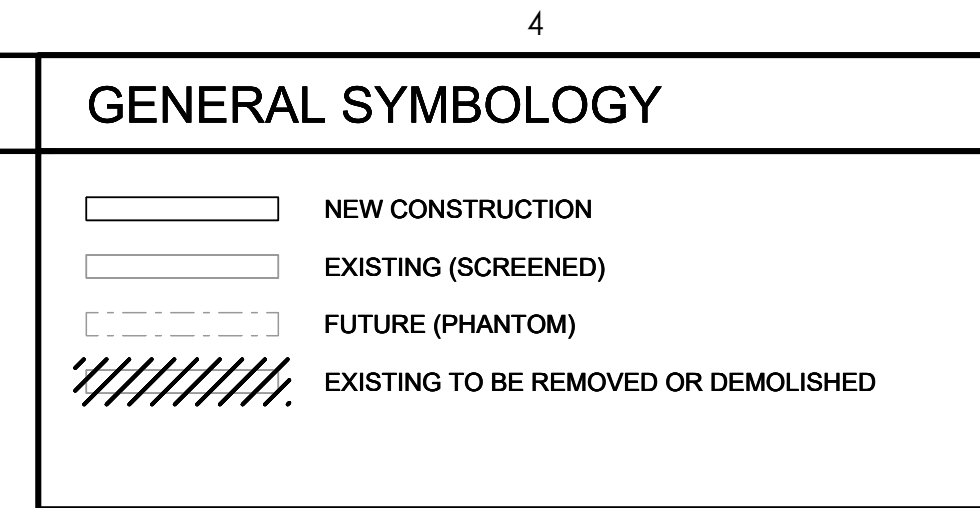


GENERAL SHEET NOTES

- ALTHOUGH SEVERAL PIPE MATERIAL GROUPS MAY BE LISTED ON THIS SHEET FOR A GIVEN FLUID SERVICE, CONTRACTOR SHALL PROVIDE ONLY THE PIPE MATERIAL GROUP SHOWN ON THE DRAWINGS AND SPECIFIED FOR THAT FLUID SERVICE.
- CHANGE IN PIPING MATERIAL GROUP NUMBER IS INDICATED THIS:
- PROVIDE DOUBLE CONTAINMENT FOR ALL CHEMICAL PIPING PER CODE REQUIREMENTS.

SHEET KEYNOTES

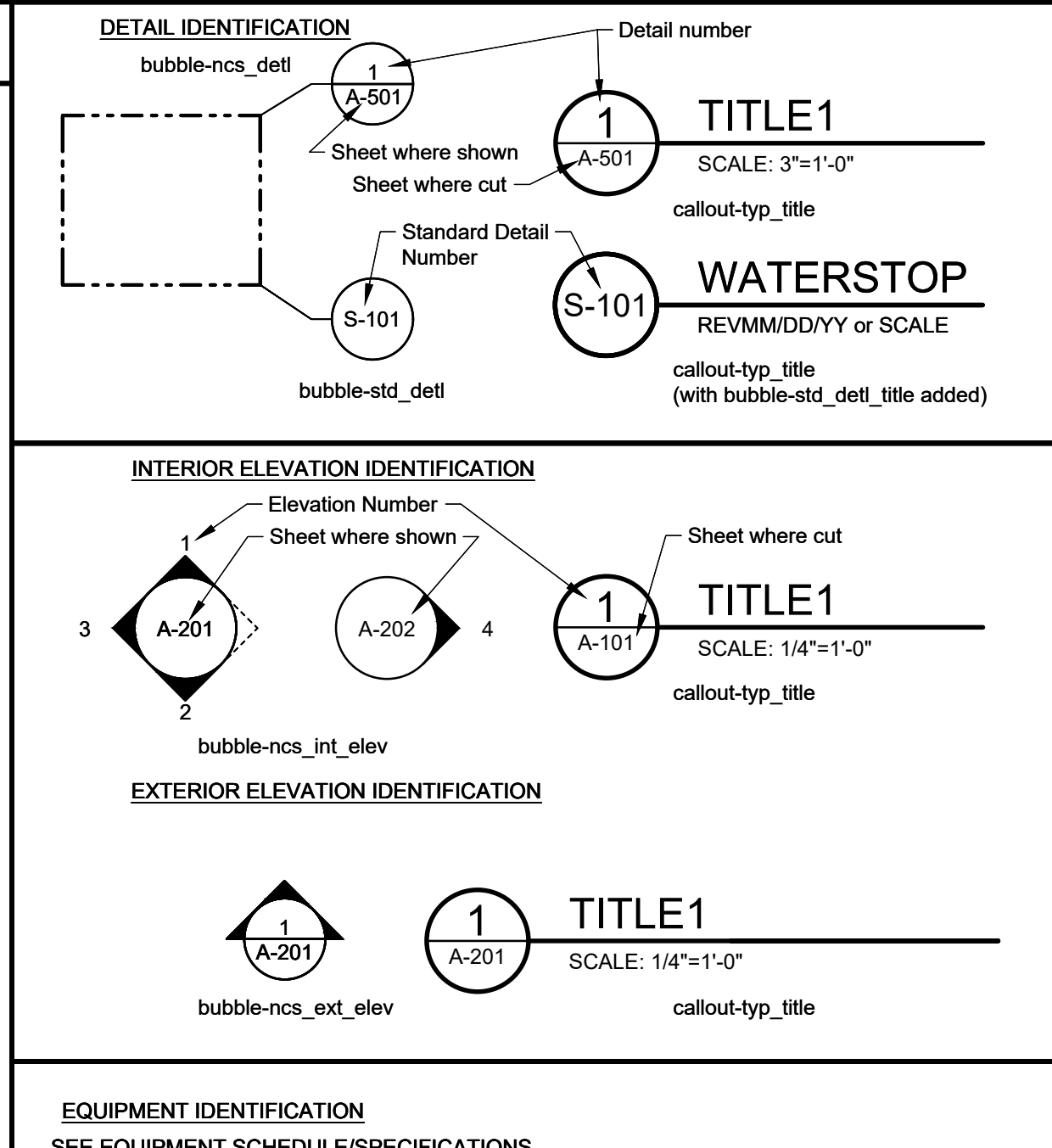
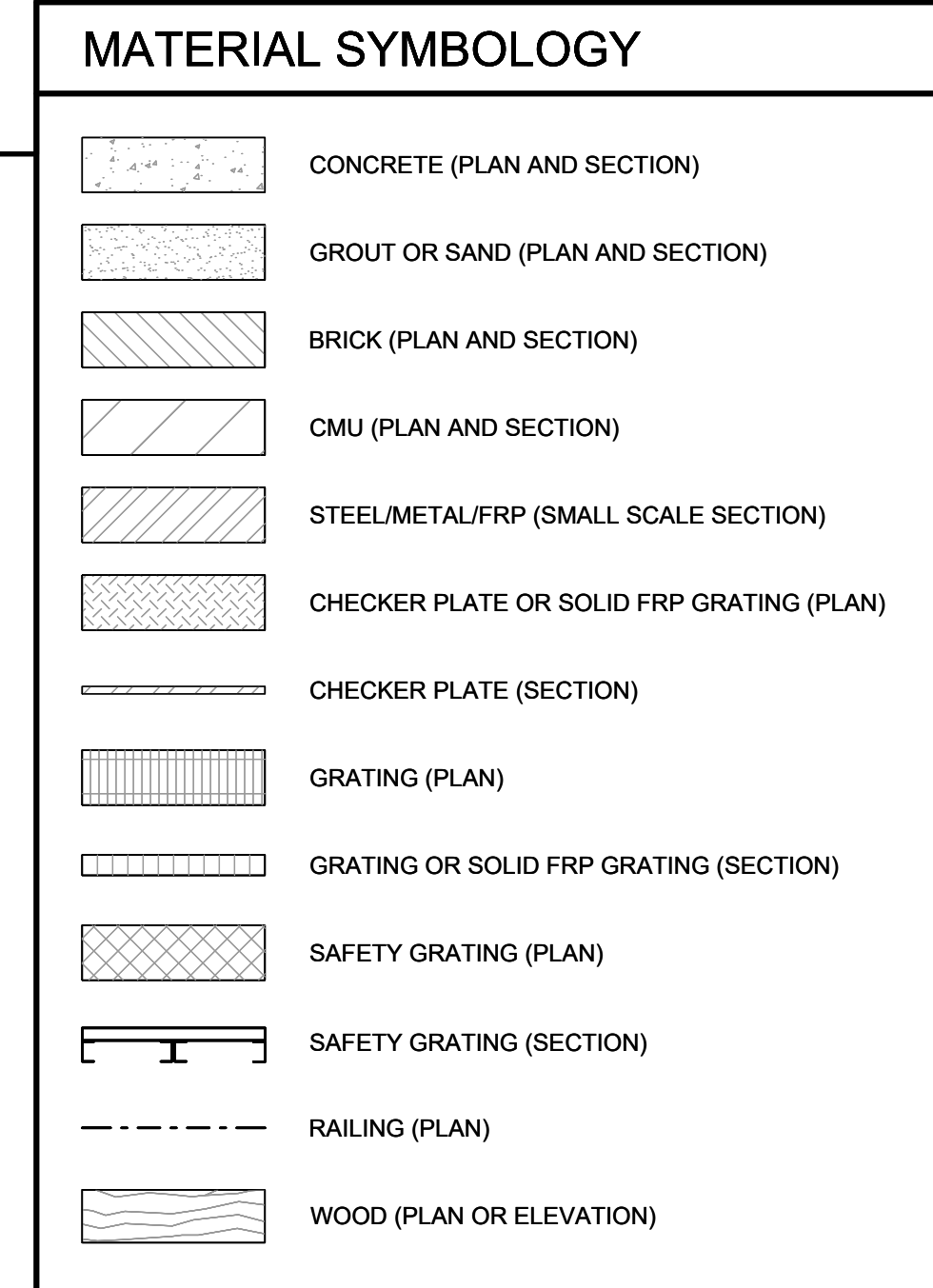
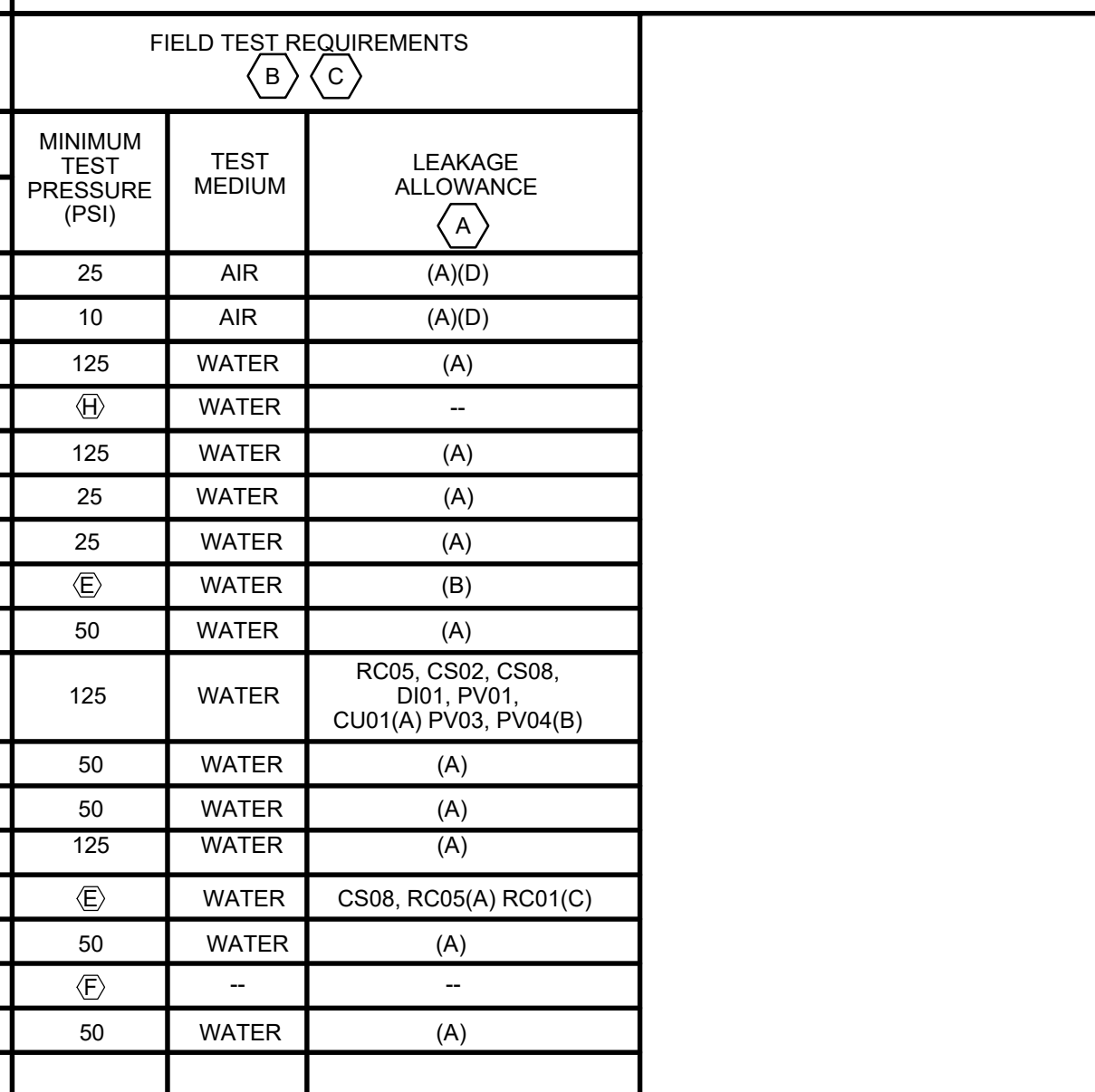
- PROPRIETARY NAMES HAVE BEEN QUOTED FOR IDENTIFICATION PURPOSES ONLY. SUBSTITUTIONS WILL BE PERMITTED SUBJECT TO PROVISIONS OF THE SPECIFICATIONS.
- NO SUBSTITUTIONS UNLESS ACCEPTED BY THE ENGINEER PER THE SPECIFICATIONS.
- FOR VALVES 8" AND LARGER, SEE VALVE SCHEDULE. FOR SPECIAL VALVES, SEE SPECIFICATIONS. FOR PIPE LINING AND COATING, SEE SPECIFICATIONS.
- PIPE MATERIALS SHALL BE PER THE REFERENCE STANDARDS AS MODIFIED BY THE CONTRACT SPECIFICATIONS. FOR PIPE LINING AND COATING, SEE SPECIFICATIONS.



FLUID ABBREVIATION	FUNCTION	PIPING MATERIALS (SEE GENERAL NOTES AT THE RIGHT AND PIPE MATERIAL SHEET)				FIELD TEST REQUIREMENTS		
THIS LIST INCLUDES SOME LINES NOT USED IN THIS PROJECT	FUNCTION	EXPOSED PIPING (K)		BURIED PIPING (J)		MINIMUM TEST PRESSURE (PSI)	TEST MEDIUM	LEAKAGE ALLOWANCE (A)
		4" DIA AND SMALLER	6" DIA AND LARGER	4" DIA AND SMALLER	6" DIA AND LARGER			
A	AERATION	CS01, PV01, FR01	CS05, DI01, PV01, FR01	CS01, PV01, FR01	CS05, DI01, PV01, FR01	25	AIR	(A)(D)
FA	FOUL AIR	--	FR01	--	FR01	10	AIR	(A)(D)
FEC	FERRIC CHLORIDE	PE01, PV02	PE01, PV02	PE01, PV02	PE01, PV02	125	WATER	(A)
FP	FIRE PROTECTION	(H)	(H)	(H)	(H)	(H)	WATER	--
MP	MEMBRANE PERMEATE	SS02, PV02	SS02, PV02	--	--	125	WATER	(A)
OF	OVERFLOW	--	--	PE01, PE05	--	25	WATER	(A)
PE	PRIMARY EFFLUENT	--	CS08, DI02	--	CS08, DI02	25	WATER	(A)
PI	PLANT INFLUENT	--	CY02, DI02	--	CY02, DI02	(E)	WATER	(B)
PLE	PLANT EFFLUENT	--	CS08	--	CS08	50	WATER	(A)
PW	POTABLE WATER	CS02, DI01, PV01, CU01	CS02, CS08, DI01, PV01	CS02, DI01, PV01, CU01	CS02, CS08, DI01, PV01, PV03, PV04	125	WATER	RC05, CS02, CS08, DI01, PV01, CU01(A) PV03, PV04(B)
RAS	RETURN ACTIVATED SLUDGE	CS08, DI02	CS08, DI02	CS08, DI02	CS08, DI02	50	WATER	(A)
S	SCUM	--	DI03	--	DI03	50	WATER	(A)
SDH	SODIUM HYDROXIDE (CAUSTIC SODA)	CS06, SS01, PE01	CS06, SS01, PE01	CS06, SS01, PE01	CS06, SS01, PE01	125	WATER	(A)
SDR	STORM DRAIN	--	CS08	--	RC01, RC05	(E)	WATER	CS08, RC05(A) RC01(C)
SE	SECONDARY EFFLUENT	--	CS08, DI02	--	CS08, DI02	50	WATER	(A)
SS	SANITARY SEWER	PV06, PV01	PE01, PE05	--	--	(F)	--	--
WAS	WASTE ACTIVATED SLUDGE	--	DI02	--	DI02	50	WATER	(A)

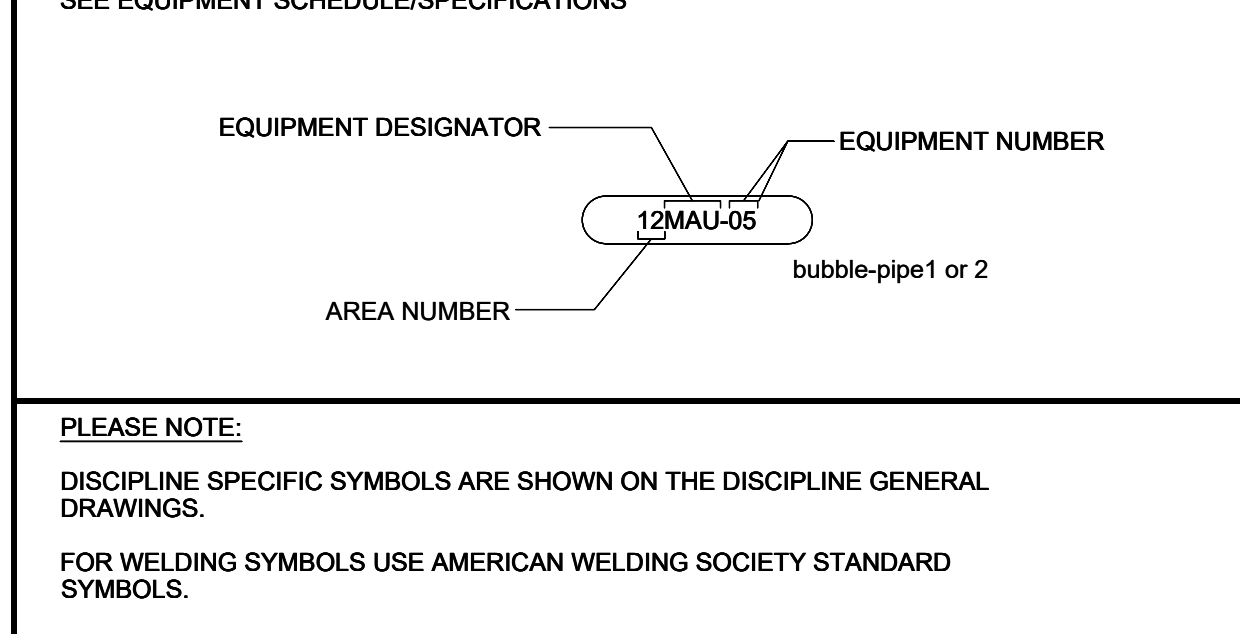
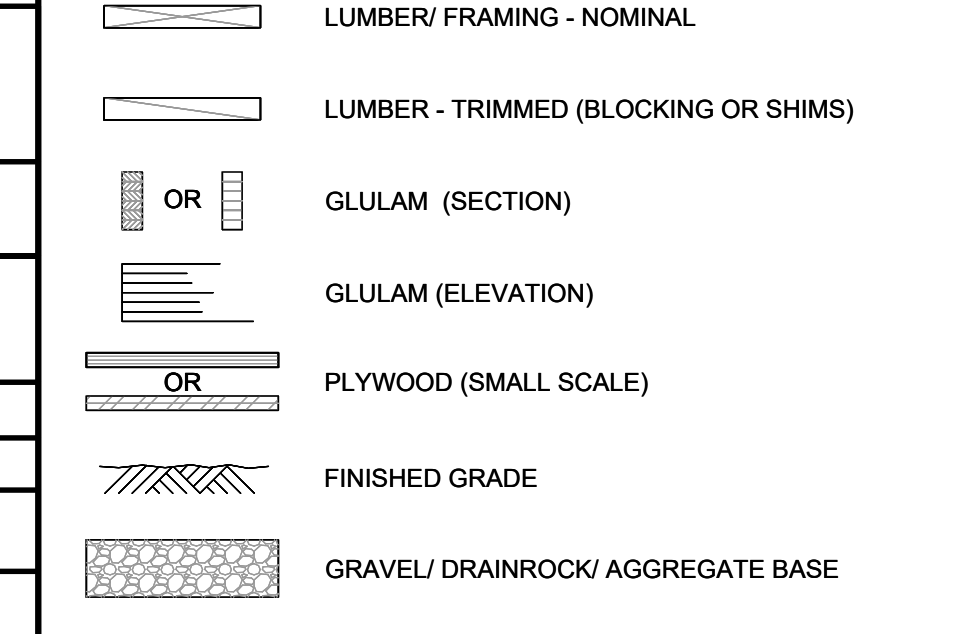
PIPING MATERIAL SCHEDULE (B)

GROUP NO	PIPE (D)	FITTINGS	VALVES, 6" AND SMALLER (A)(C)
DI02	DUCTILE IRON, ANSI A21.51, (AWWA C151), ENDS BELL AND SPIGOT, MECHANICAL JOINTS OR 125 PSI FLANGED. (TYPICAL SERVICE - SLUDGE AND SEWAGE LINES).	DUCTILE IRON AWWA C110, BELL AND SPIGOT JOINTS (RESTRAINED OR NON-RESTRAINED), MECHANICAL COUPLINGS, ASME B16.1 FLANGES, OR MECHANICAL JOINTS.	ECC PLUG, SYNTHETIC RUBBER FACED: DEZURIK PEC, CAST IRON OR MILLIKEN 601, SWING TYPE CHECK: CRANE #383 OR POWELL FIG 559, BALL: PRATT OR APCO-WILLAMETTE.
PE01	POLYETHYLENE PIPE, ASTM D3350, SDR AS SPECIFIED.	THERMAL BUTT-FUSED FLANGE CONNECTIONS AT ALL VALVES AND TRANSITIONS.	AS INDICATED ON DRAWINGS.
PE05	POLYETHYLENE, PRESSURE PIPE, AWWA C906.	POLYETHYLENE THERMAL BUTT-FUSED JOINTS, FLANGED JOINTS AT VALVES AND TRANSITIONS.	AS INDICATED ON DRAWINGS.
PE06	FLEXIBLE RUBBER HOSE, EPDM/SBR RUBBER, TEXTILE PLY WITH HELICAL STEEL WIRE REINFORCEMENT, 150 PSI.	BARBED SHANK FOR CONVERSION TO QUICK COUPLING OR THREADED END.	AS INDICATED ON DRAWINGS.
PV01	POLYVINYL CHLORIDE (PVC), ASTM D1785, SCH 80, TYPE I.	PVC, SCH 80, TYPE I, SOCKET SOLVENT WELD JOINTS, ASTM D2467. SOLVENT SHALL BE COMPATIBLE WITH FLUID SERVICE.	PVC, BALL, DIAPHRAGM, BUTTERFLY, OR LIFT CHECK: NIBCO/CHEMTROL, MCCANNA-MARPAC, OR GEORGE FISCHER SLOANE



PIPING MATERIAL SCHEDULE (B)

GROUP NO	PIPE (D)	FITTINGS	VALVES, 6" AND SMALLER (A)(C)
DI02	DUCTILE IRON, ANSI A21.51, (AWWA C151), ENDS BELL AND SPIGOT, MECHANICAL JOINTS OR 125 PSI FLANGED. (TYPICAL SERVICE - SLUDGE AND SEWAGE LINES).	DUCTILE IRON AWWA C110, BELL AND SPIGOT JOINTS (RESTRAINED OR NON-RESTRAINED), MECHANICAL COUPLINGS, ASME B16.1 FLANGES, OR MECHANICAL JOINTS.	ECC PLUG, SYNTHETIC RUBBER FACED: DEZURIK PEC, CAST IRON OR MILLIKEN 601, SWING TYPE CHECK: CRANE #383 OR POWELL FIG 559, BALL: PRATT OR APCO-WILLAMETTE.
PE01	POLYETHYLENE PIPE, ASTM D3350, SDR AS SPECIFIED.	THERMAL BUTT-FUSED FLANGE CONNECTIONS AT ALL VALVES AND TRANSITIONS.	AS INDICATED ON DRAWINGS.
PE05	POLYETHYLENE, PRESSURE PIPE, AWWA C906.	POLYETHYLENE THERMAL BUTT-FUSED JOINTS, FLANGED JOINTS AT VALVES AND TRANSITIONS.	AS INDICATED ON DRAWINGS.
PE06	FLEXIBLE RUBBER HOSE, EPDM/SBR RUBBER, TEXTILE PLY WITH HELICAL STEEL WIRE REINFORCEMENT, 150 PSI.	BARBED SHANK FOR CONVERSION TO QUICK COUPLING OR THREADED END.	AS INDICATED ON DRAWINGS.
PV01	POLYVINYL CHLORIDE (PVC), ASTM D1785, SCH 80, TYPE I.	PVC, SCH 80, TYPE I, SOCKET SOLVENT WELD JOINTS, ASTM D2467. SOLVENT SHALL BE COMPATIBLE WITH FLUID SERVICE.	PVC, BALL, DIAPHRAGM, BUTTERFLY, OR LIFT CHECK: NIBCO/CHEMTROL, MCCANNA-MARPAC, OR GEORGE FISCHER SLOANE



Stantec
410 17th Street, Suite 1400
Denver, CO 80202
Tel: +1 303 295 1717
www.stantec.com

Consultant

2025.08.20	2025.08.20	2025.08.20	2025.08.20
YTY/AM/DD	YTY/AM/DD	YTY/AM/DD	YTY/AM/DD

Permit/Seal

PRELIMINARY NOT FOR CONSTRUCTION

Not for permits, pricing or other official purposes. This document has not been completed or checked and is for general information or comment only.

Client/Project
DOMINION WATER
SANITATION DISTRICT
CHAITHFIELD BASIN WRF

11290 CARETAKER RD,
LITTLETON, CO 80125

Project No.: 181301899			
File Name: 01899_G000_003			
Scale:			
KN	MCR	SRT	2025.04.07
Dwn.	Dsgn.	Chkd.	YTY/AM/DD
Title GENERAL SYMBOLS			
Revision:		Sheet: of XX	
Drawing No.			

ENGINEERING DIVISION ACCEPTANCE BLOCK

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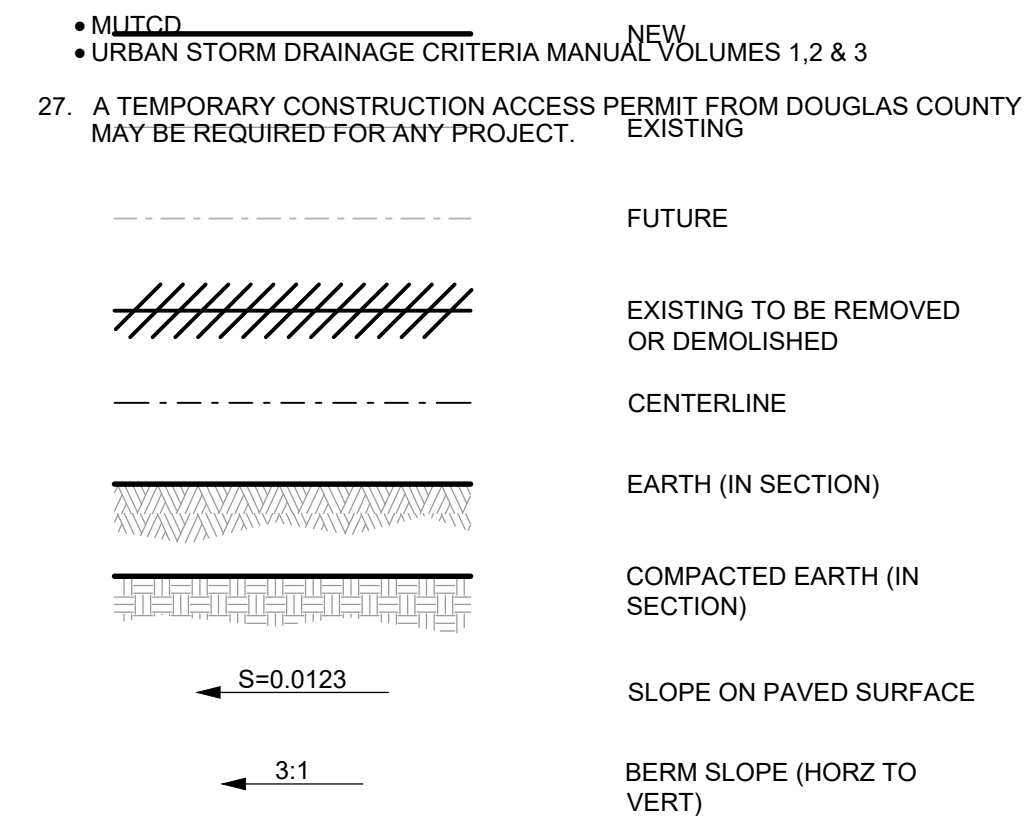
DOUGLAS COUNTY STANDARD NOTES

- 1. THE DOUGLAS COUNTY ENGINEERING DIRECTOR SIGNATURE AFFIXED TO THIS DOCUMENT INDICATES THE ENGINEERING DIVISION HAS REVIEWED THE DOCUMENT AND FOUND IT IN GENERAL CONFORMANCE WITH THE DOUGLAS COUNTY ROADWAY DESIGN AND CONSTRUCTION STANDARDS AND THE DOUGLAS COUNTY SUBDIVISION RESOLUTION OR ACCEPTED VARIANCES TO THOSE REGULATIONS. THE DOUGLAS COUNTY ENGINEERING DIRECTOR, THROUGH ACCEPTANCE OF THIS DOCUMENT, ASSUMES NO RESPONSIBILITY OTHER THAN STATED ABOVE. FOR THE COMPLETENESS AND/OR ACCURACY OF THESE DOCUMENTS, THE OWNER AND ENGINEER UNDERSTAND THAT THE RESPONSIBILITY FOR THE ENGINEERING ADEQUACY OF THE FACILITIES DEPICTED IN THIS DOCUMENT LIES SOLELY WITH THE PROFESSIONAL ENGINEER REGISTERED IN THE STATE OF COLORADO WHOSE STAMP AND SIGNATURE IS AFFIXED TO THIS DOCUMENT.
2. ALL CONSTRUCTION SHALL CONFORM TO DOUGLAS COUNTY STANDARDS. ANY CONSTRUCTION NOT SPECIFICALLY ADDRESSED BY THESE PLANS AND SPECIFICATIONS WILL BE BUILT IN COMPLIANCE WITH THE LATEST EDITION OF THE MOST STRINGENT OF THE FOLLOWING:
- THE DOUGLAS COUNTY ROADWAY DESIGN AND CONSTRUCTION STANDARDS
- THE COLORADO DEPARTMENT OF HIGHWAYS STANDARD SPECIFICATIONS FOR ROAD AND BRIDGE CONSTRUCTION
- THE COLORADO DEPARTMENT OF TRANSPORTATION M STANDARDS
3. ALL MATERIALS AND WORKMANSHIP SHALL BE SUBJECT TO INSPECTION BY THE DOUGLAS COUNTY ENGINEERING DIVISION AS APPLICABLE. THE COUNTY RESERVES THE RIGHT TO ACCEPT OR REJECT ANY SUCH MATERIALS AND WORKMANSHIP THAT DOES NOT CONFORM TO ITS STANDARDS AND SPECIFICATIONS.
4. THE CONTRACTOR SHALL NOTIFY THE DOUGLAS COUNTY ENGINEERING INSPECTION DIVISION, 303-660-7487, A MINIMUM OF 24-HOURS AND A MAXIMUM OF 72-HOURS PRIOR TO STARTING CONSTRUCTION. CONTRACTOR SHALL NOTIFY DOUGLAS COUNTY ENGINEERING INSPECTION WHEN WORKING OUTSIDE OF THE PUBLIC RIGHT-OF-WAY ON ANY FACILITY THAT WILL BE CONVEYED TO THE COUNTY, URBAN DRAINAGE & FLOOD CONTROL DISTRICT, OR OTHER SPECIAL DISTRICT FOR MAINTENANCE (STORM SEWER, ENERGY DISSIPATORS, DETENTION OUTLET STRUCTURES, OR OTHER DRAINAGE INFRASTRUCTURES). FAILURE TO NOTIFY THE ENGINEERING INSPECTION DIVISION TO ALLOW THEM TO INSPECT THE CONSTRUCTION MAY RESULT IN NON-ACCEPTANCE OF THE FACILITY/INFRASTRUCTURE BY THE COUNTY AND/OR URBAN DRAINAGE.
5. CONSTRUCTION WILL NOT BEGIN UNTIL ALL APPLICABLE PERMITS HAVE BEEN ISSUED. IF A DOUGLAS COUNTY ENGINEERING INSPECTOR IS NOT AVAILABLE AFTER PROPER NOTICE OF CONSTRUCTION ACTIVITY HAS BEEN PROVIDED, THE PERMITTEE MAY COMMENCE WORK IN THE INSPECTOR'S ABSENCE. HOWEVER, DOUGLAS COUNTY RESERVES THE RIGHT NOT TO ACCEPT THE IMPROVEMENT IF SUBSEQUENT TESTING REVEALS AN IMPROPER INSTALLATION.
6. THE LOCATION OF EXISTING UTILITIES SHALL BE VERIFIED BY THE CONTRACTOR PRIOR TO ACTUAL CONSTRUCTION. FOR INFORMATION CONTACT: COLORADO 811, AT 1-800-922-1987 (WWW.COLORADO811.ORG).
7. THE CONTRACTOR SHALL HAVE ONE (1) COPY OF THE PLANS SIGNED BY THE DOUGLAS COUNTY ENGINEERING DIRECTOR, ONE (1) COPY OF THE ROADWAY DESIGN AND CONSTRUCTION STANDARDS, AS AMENDED, AND ALL APPLICABLE PERMITS AT THE JOB SITE AT ALL TIMES.
8. ALL PROPOSED STREET CUTS TO EXISTING PAVEMENTS FOR UTILITIES, STORM SEWER OR FOR OTHER PURPOSES ARE LISTED AND REFERENCED BELOW:
EXAMPLES: WATER TIE-IN SHEET 3
STORM SEWER CONNECTION SHEET 6
9. A TRAFFIC CONTROL PLAN, IN ACCORDANCE WITH THE MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES, SHALL BE SUBMITTED TO DOUGLAS COUNTY FOR ACCEPTANCE WITH THE RIGHT-OF-WAY USE AND CONSTRUCTION PERMIT APPLICATION. A RIGHT-OF-WAY USE AND CONSTRUCTION PERMIT WILL NOT BE ISSUED WITHOUT AN ACCEPTED TRAFFIC CONTROL PLAN FOR TRAFFIC CONTROL DURING CONSTRUCTION.
10. THE CONSTRUCTION PLANS SHALL BE CONSIDERED VALID FOR THREE (3) YEARS FROM THE DATE OF COUNTY ACCEPTANCE, AFTER WHICH TIME THESE PLANS SHALL BE VOID AND WILL BE SUBJECT TO RE-REVIEW AND RE-ACCEPTANCE BY DOUGLAS COUNTY.
11. DOUGLAS COUNTY STANDARD DETAILS SHALL NOT BE MODIFIED. ANY NON-STANDARD DETAILS WILL BE CLEARLY IDENTIFIED AS SUCH.
12. PAVING, INCLUDING CONSTRUCTION OF CURB AND GUTTER (WHEN USED), SHALL NOT START UNTIL A PAVEMENT DESIGN REPORT AND SUBGRADE COMPACTION TESTS ARE ACCEPTED BY THE ENGINEERING INSPECTION DIVISION FOR ALL PUBLIC AND PRIVATE ROADS.
13. STANDARD DOUGLAS COUNTY HANDICAP RAMPS ARE TO BE CONSTRUCTED AT ALL CURB RETURNS AND AT MID-BLOCK LOCATIONS OPPOSITE OF ONE OF THE CURB RETURNS OF ALL "T" INTERSECTIONS AS IDENTIFIED ON THESE PLANS.
14. ALL STATIONING IS BASED ON CENTERLINE OF ROADWAYS UNLESS OTHERWISE NOTED.
15. ALL ELEVATIONS ARE ON UNITED STATES COAST AND GEODETIC SURVEY (USCGS) (NAVD-83) DATUM WITH DATE. THE RANGE POINT OR MONUMENTS SHALL BE SHOWN ON CONSTRUCTION DRAWINGS.
16. ALL STORM SEWER IMPROVEMENTS (PUBLIC AND PRIVATE) INCLUDING, BUT NOT LIMITED TO, INLETS, PIPES, CULVERTS, CHANNELS, DITCHES, HYDRAULIC STRUCTURES, RIPRAP, DETENTION BASINS, FOREBAYS, MICROPOOLS, AND WATER QUALITY FACILITIES REQUIRE PERMITTING AND INSPECTIONS. PLEASE CONTACT THE DOUGLAS COUNTY ENGINEERING INSPECTIONS DIVISION AT 303-660-7487 FOR PERMITTING REQUIREMENTS AND INSPECTIONS SCHEDULING.
17. TWO (2) MANHOLE ACCESS POINTS ARE REQUIRED ON ALL TYPE "R" CURB INLETS GREATER THAN OR EQUAL TO TEN (10) FEET IN LENGTH.
18. EPOXY COATED REBAR IS REQUIRED ON ALL DRAINAGE STRUCTURES.
19. DOUGLAS COUNTY REQUIRES CLASS D CONCRETE FOR ALL DRAINAGE STRUCTURES.
20. ALL RCP STORM SEWERS MUST USE ASTM C443 WATERTIGHT GASKETS PER THE CURRENT DOUGLAS COUNTY AND URBAN DRAINAGE DESIGN CRITERIA.
21. ALL RCP SHALL BE CLASS III STORM SEWER PIPE UNLESS OTHERWISE SPECIFIED.
22. JOINT RESTRAINTS ARE REQUIRED FOR A MINIMUM OF THE LAST TWO PIPE JOINTS AND FLARED END SECTION OF AN RCP OUTFALL.
23. PRECAST INLETS AND MANHOLE BASES ARE NOT ALLOWED.
24. TOE WALLS ARE REQUIRED ON FLARED END SECTIONS AT THE OUTLET END OF CULVERTS AND STORM SEWER OUTFALLS.
25. FILTER FABRIC IS REQUIRED UNDER ALL RIPRAP PADS.
26. THE PROFESSIONAL ENGINEER, REGISTERED IN THE STATE OF COLORADO, SIGNING THESE PLANS IS RESPONSIBLE FOR ENSURING THAT THE DETAILS INCLUDED ARE COMPATIBLE WITH THE STANDARD DOUGLAS COUNTY DETAILS CONTAINED IN THE LATEST VERSIONS OF THE CRITERIA MANUALS. THIS INCLUDES, BUT IS NOT LIMITED TO:
- DOUGLAS COUNTY ROADWAY DESIGN AND CONSTRUCTION STANDARDS
- DOUGLAS COUNTY STORM DRAINAGE DESIGN AND TECHNICAL CRITERIA
- DOUGLAS COUNTY GRADING, EROSION AND SEDIMENT CONTROL CRITERIA
- CDOT M & S STANDARDS

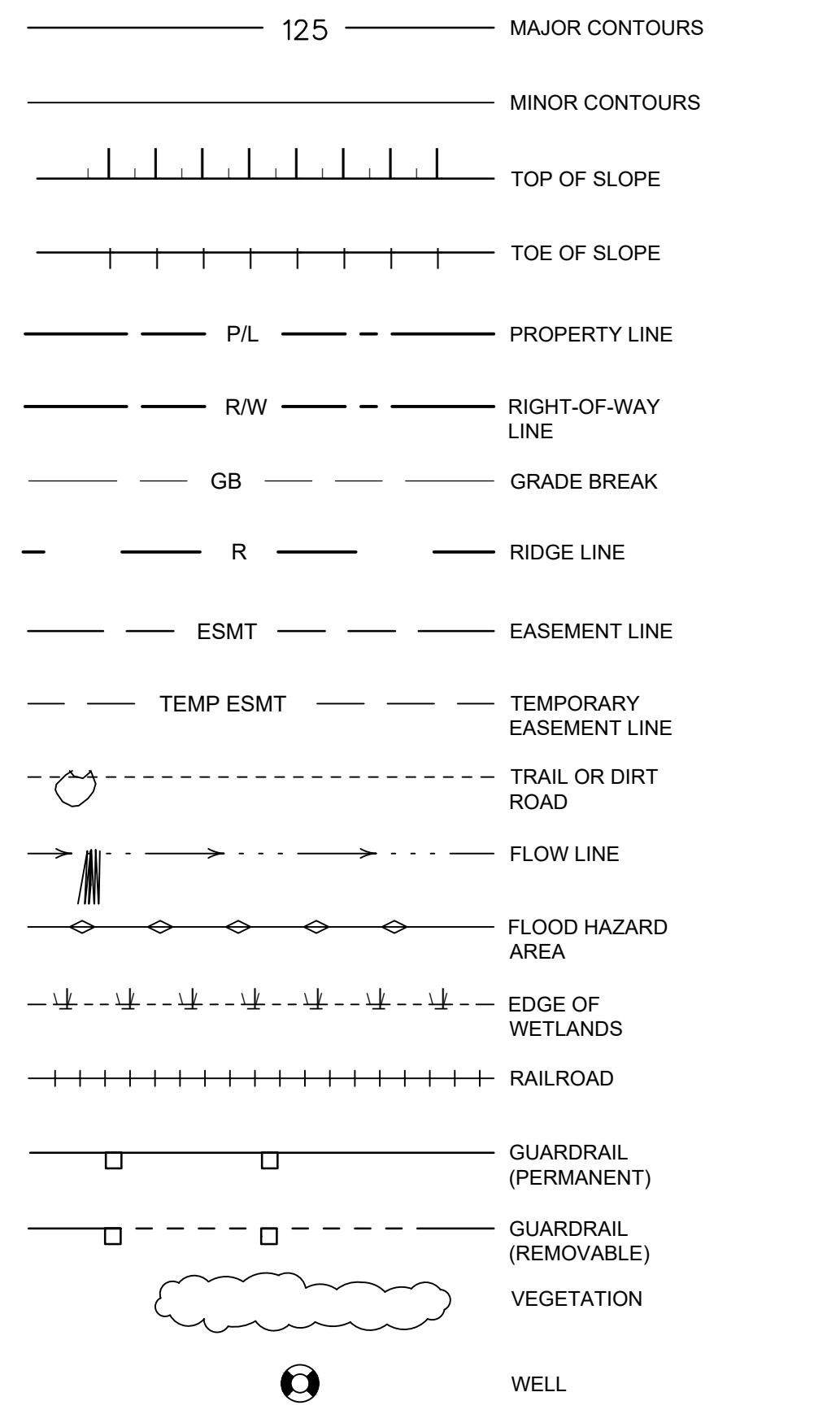
NOTES - CONTINUED

- GENERAL
1. THE CONTRACTOR SHALL TAKE ALL PRECAUTIONARY MEASURES NECESSARY TO PROTECT EXISTING IMPROVEMENTS WHICH ARE TO REMAIN IN PLACE FROM DAMAGE. ALL IMPROVEMENTS DAMAGED BY THE CONTRACTOR'S OPERATIONS SHALL BE EXPEDITIOUSLY REPAIRED OR RECONSTRUCTED AT THE CONTRACTOR'S EXPENSE WITHOUT ADDITIONAL COMPENSATION.
2. THE CONTRACTOR SHALL PROPERLY DISPOSE OF ALL DEBRIS FROM DEMOLITION AT CONTRACTORS EXPENSE.
3. ALL BUILDING COORDINATES ARE TO OUTSIDE CORNER OF COLUMN OR BUILDING.
4. THE CONTRACTOR SHALL DISPOSE OF ALL NON-ORGANIC WASTES SUCH AS OLD GUNITE, PIPING, ROCK RUBBLE ETC., AT AN APPROVED LANDFILL OR, OTHER SUITABLE DISPOSAL SITES AT THE CONTRACTOR'S EXPENSE.
5. CONTRACTOR SHALL RESTORE ALL SURVEY MONUMENTS THAT ARE DAMAGED OR DESTROYED DURING CONSTRUCTION.
UTILITIES
1. PRIOR TO THE START OF CONSTRUCTION, THE CONTRACTOR SHALL LOCATE ALL EXISTING UTILITIES IN AND AROUND THE AREAS OF NEW CONSTRUCTION. THE CONTRACTOR SHALL POHOLE FOR EXISTING UTILITIES PRIOR TO SUBMITTAL OF SHOP DRAWINGS, FOR POINTS OF CONNECTIONS.
2. THE CONTRACTOR SHALL PROTECT ALL REMAINING EXISTING UTILITIES.
3. LOCATIONS OF UNDERGROUND UTILITIES SHOWN ON THE DRAWINGS WERE OBTAINED FROM AVAILABLE RECORDS. THE CONTRACTOR SHALL VERIFY ALL LOCATIONS AND ELEVATIONS AND SHALL TAKE ALL PRECAUTIONARY MEASURES NECESSARY TO PROTECT UTILITY LINES WHETHER SHOWN OR NOT SHOWN.
4. PRIOR TO ANY CONNECTION TO AN EXISTING UTILITY, THE CONTRACTOR SHALL COORDINATE WITH THE UTILITY OWNER. PRIOR TO ANY EXCAVATION IN THE VICINITY OF ANY EXISTING UNDERGROUND FACILITIES, INCLUDING ALL WATER, SEWER, STORM DRAIN, GAS, PETROLEUM PRODUCTS, OR OTHER PIPELINES; ALL BURIED ELECTRIC POWER, COMMUNICATIONS, OR TELEVISION CABLES; ALL TRAFFIC SIGNAL AND STREET LIGHTING FACILITIES; AND ALL ROADWAY, STATE HIGHWAY, AND RAILROAD RIGHTS-OF-WAY, THE CONTRACTOR SHALL NOTIFY THE RESPECTIVE AUTHORITIES REPRESENTING THE OWNERS OR AGENCIES RESPONSIBLE FOR SUCH FACILITIES NOT LESS THAN 3 DAYS NOR MORE THAN 7 DAYS PRIOR TO EXCAVATION SO THAT A REPRESENTATIVE OF SAID OWNERS OR AGENCIES CAN BE PRESENT DURING SUCH WORK IF THEY SO DESIRE. IN THE CASE OF THE UNDERGROUND UTILITY SERVICE ALERT CENTER, THIS NOTICE WILL GIVE THEM TIME TO MARK THE LOCATION OF THE UTILITIES. THE CONTRACTOR SHALL ALSO NOTIFY THE REGIONAL OR LOCAL UNDERGROUND SERVICE ALERT COMPANY AT LEAST 3 DAYS, BUT NO MORE THAN 7 DAYS, PRIOR TO SUCH EXCAVATION.
SURVEY AND CONTROL
SURVEY CONTROL IS BASED IN NSRS 2011 COLORADO STATE PLANES, CENTRAL ZONE, US FOOT.
SEE SHEET C-004 FOR LOCAL SURVEY CONTROL POINTS LOCATIONS.
HORIZONTAL CONTROL IS BASED ON THE PROJECT CONTROL INFORMATION OF THE TOPOGRAPHIC SURVEY PERFORMED BY PRECISION SURVEY & MAPPING INC. ON AUGUST 2, 2018.
BASIS OF ELEVATION IS BASED ON THE PROJECT CONTROL INFORMATION OF THE TOPOGRAPHIC SURVEY PERFORMED BY PRECISION SURVEY & MAPPING INC. ON AUGUST 2, 2018 BEING POINT #10, A RED PLASTIC CAP, WITH A PUBLISHED ELEVATION OF 5517.39'.
ADDITIONAL PROJECT CONTROL POINTS BASED ON FIELD WORK PERFORMED ON OCTOBER 21, 2024.
PIPING
1. THE CONTRACTOR SHALL COMPLY WITH THE STATE DEPARTMENT OF HEALTH SERVICES CRITERIA FOR THE SEPARATION OF WATER MAINS AND SANITARY SEWERS.
2. THE CONTRACTOR SHALL PROVIDE A MINIMUM OF 36 INCHES OF COVER ON ALL PIPELINES UNLESS OTHERWISE SHOWN OR DIRECTED.
3. STRAIGHT SLOPES SHALL BE MAINTAINED BETWEEN INVERT ELEVATIONS SHOWN OR SPECIFIED.
4. THE CONTRACTOR SHALL ADJUST ALL VALVE BOXES, PULL BOXES AND MANHOLES TO FINISHED GRADE UNLESS OTHERWISE SHOWN OR SPECIFIED. MANHOLES IN OPEN FIELDS SHALL BE SET ONE FOOT ABOVE GRADE. APPROXIMATE RIM ELEVATIONS ARE SHOWN ON DRAWINGS.
5. ALL PIPE TRENCHING AND BACKFILL SHALL BE IN ACCORDANCE WITH DETAIL C-602 FOR RIGID PIPE AND C-601 FOR FLEXIBLE PIPE. THE PIPING SHOWN ON THESE PLANS SHALL BE RESTRAINED JOINT DESIGN AT ALL SLEEVE TYPE COUPLINGS.
6. THE CONTRACTOR SHALL PROVIDE TWO FLEXIBLE SLEEVE TYPE COUPLINGS WITH RESTRAINED JOINTS FOR EACH PIPE PENETRATING STRUCTURE (EXCLUDING MANHOLES). THE COUPLINGS AND FLEXIBLE JOINTS SHALL BE 3-FEET AND 8-FEET AWAY FROM THE STRUCTURE. ALL PIPING SHALL BE RESTRAINED JOINT DESIGN UNLESS INDICATED OTHERWISE. COUPLINGS AND RESTRAINED JOINTS SHALL BE PROVIDED WHETHER SHOWN ON THE DRAWINGS OR NOT. STEEL PIPE RESTRAINED HARNESS SETS SHALL BE PROVIDED IN ACCORDANCE WITH AWWA M-11. ALL OTHER PIPES, COUPLINGS AND RESTRAINED JOINTS SHALL BE APPROVED BY THE ENGINEER. ALL RESTRAINED JOINTS SHALL BE IN ACCORDANCE WITH THE PIPE MANUFACTURERS' RECOMMENDATIONS.
EROSION CONTROL
1. THE CONTRACTOR SHALL SUBMIT AN EROSION CONTROL PLAN FOR WORK DURING THE CONSTRUCTION, SIGNED AND STAMPED BY A REGISTERED CIVIL ENGINEER PRIOR TO THE START OF CONSTRUCTION.
a. ALL SLOPES SHALL BE PROTECTED FROM EROSION DURING ROUGH GRADING OPERATIONS AND THEREAFTER, UNTIL INSTALLATION OF FINAL GROUND COVER (SEE LANDSCAPE PLANS FOR FINAL GROUND COVER)
b. ALL SLOPE PROTECTION SWALES SHALL BE CONSTRUCTED AT THE SAME TIME AS BANKS ARE GRADED.
c. THE CONTRACTOR IS RESPONSIBLE FOR IMPLEMENTATION AND MAINTENANCE OF EROSION CONTROL MEASURES CONTAINED WITHIN THE CONTRACT SPECIFICATIONS OR AS REQUIRED BY THE CITY, DISTRICT, OR OTHER REGULATORY AUTHORITY. THE CONTRACTOR SHALL ALSO PROVIDE ANY ADDITIONAL EROSION CONTROL MEASURES (E.G. HYDROSEEDING, MULCHING OF STRAW, SAND BAGGING, DIVERSION DITCHES, ETC.) DICTATED BY FIELD CONDITIONS TO PREVENT EROSION OR THE INTRODUCTION OF DIRT, MUD, OR DEBRIS INTO EXISTING PUBLIC STREETS, WATERWAYS, OR ONTO ADJACENT PROPERTIES DURING ANY PHASE OF CONSTRUCTION OPERATIONS.

GENERAL CIVIL SYMBOLS



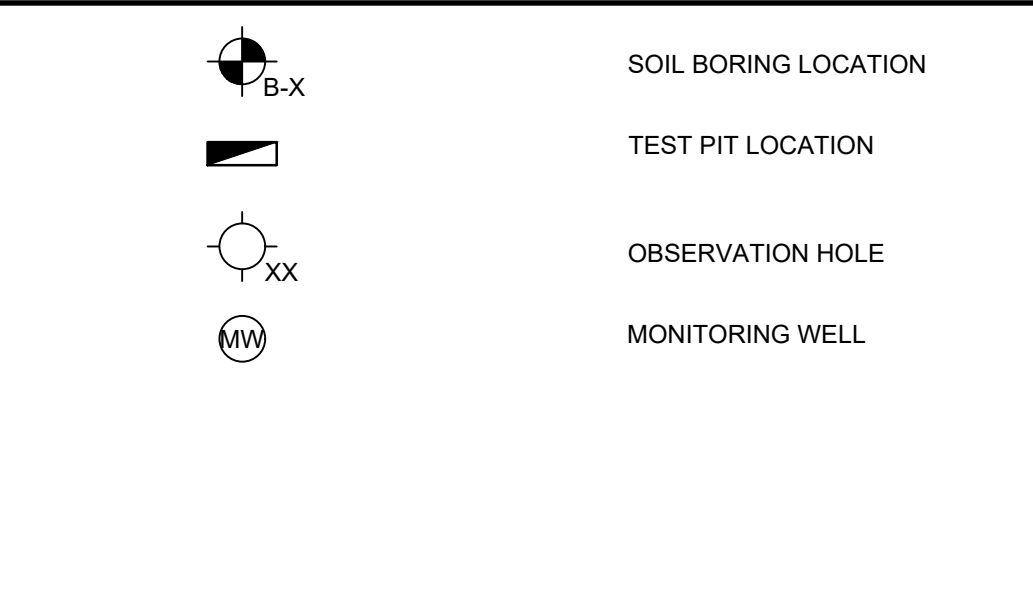
TOPOGRAPHY AND MAPPING SYMBOLS



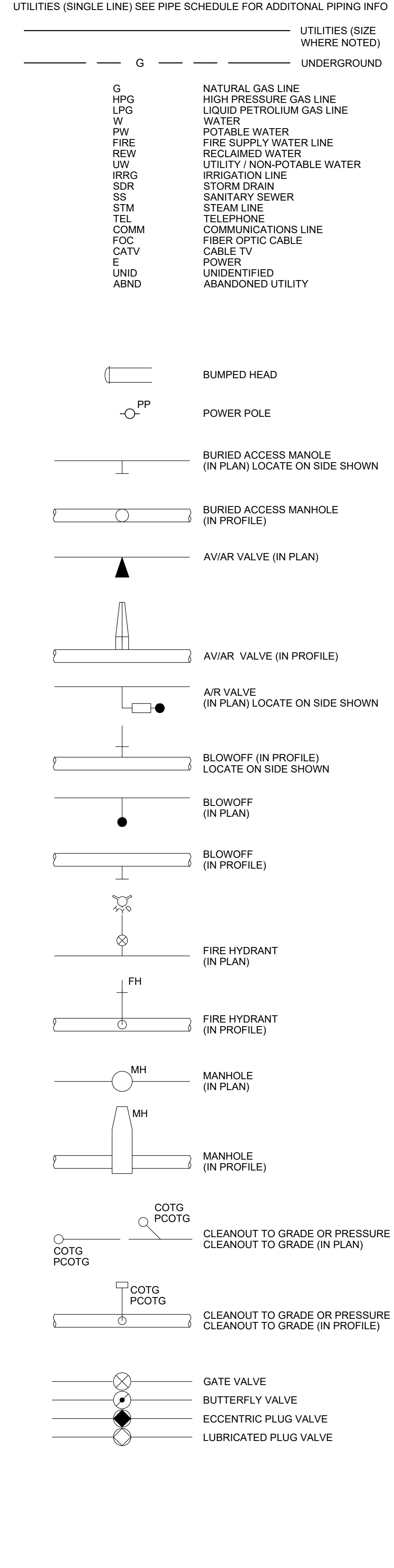
DRAINAGE SYMBOLS



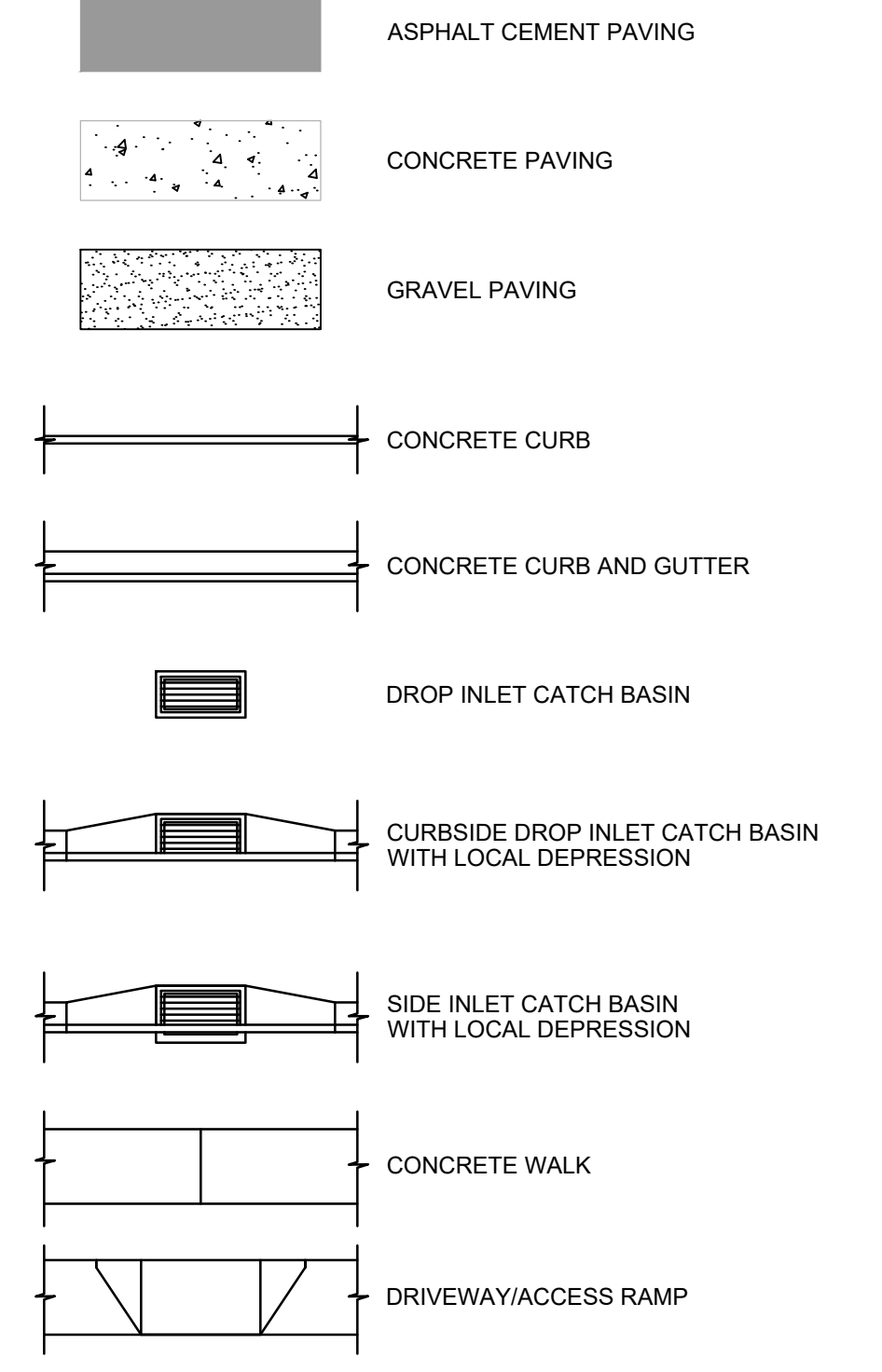
GEOTECHNICAL SYMBOLS



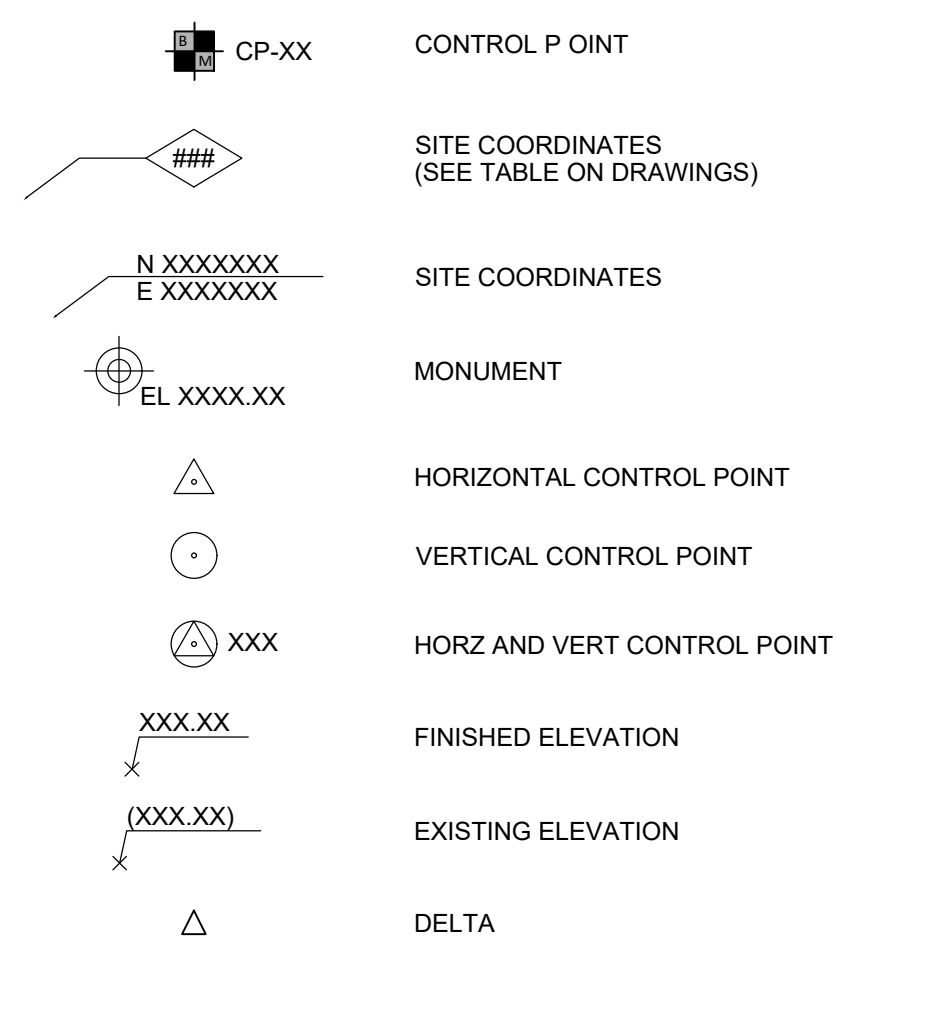
PIPING AND UTILITIES



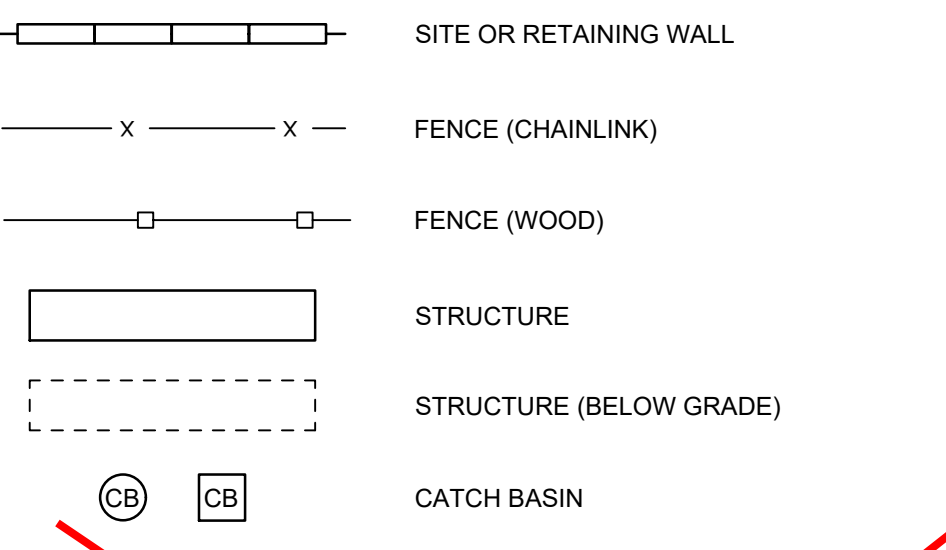
ROAD AND PAVING SYMBOLS



CONTROL SYMBOLS



STRUCTURES



ASSISTANT DIRECTOR OF DEVELOPMENT REVIEW
DATE
THESE CONSTRUCTION DRAWINGS HAVE BEEN REVIEWED BY DOUGLAS COUNTY FOR LOCATION AND EXTENTS PERMIT ONLY.
ENGINEERING DIVISION ACCEPTANCE BLOCK



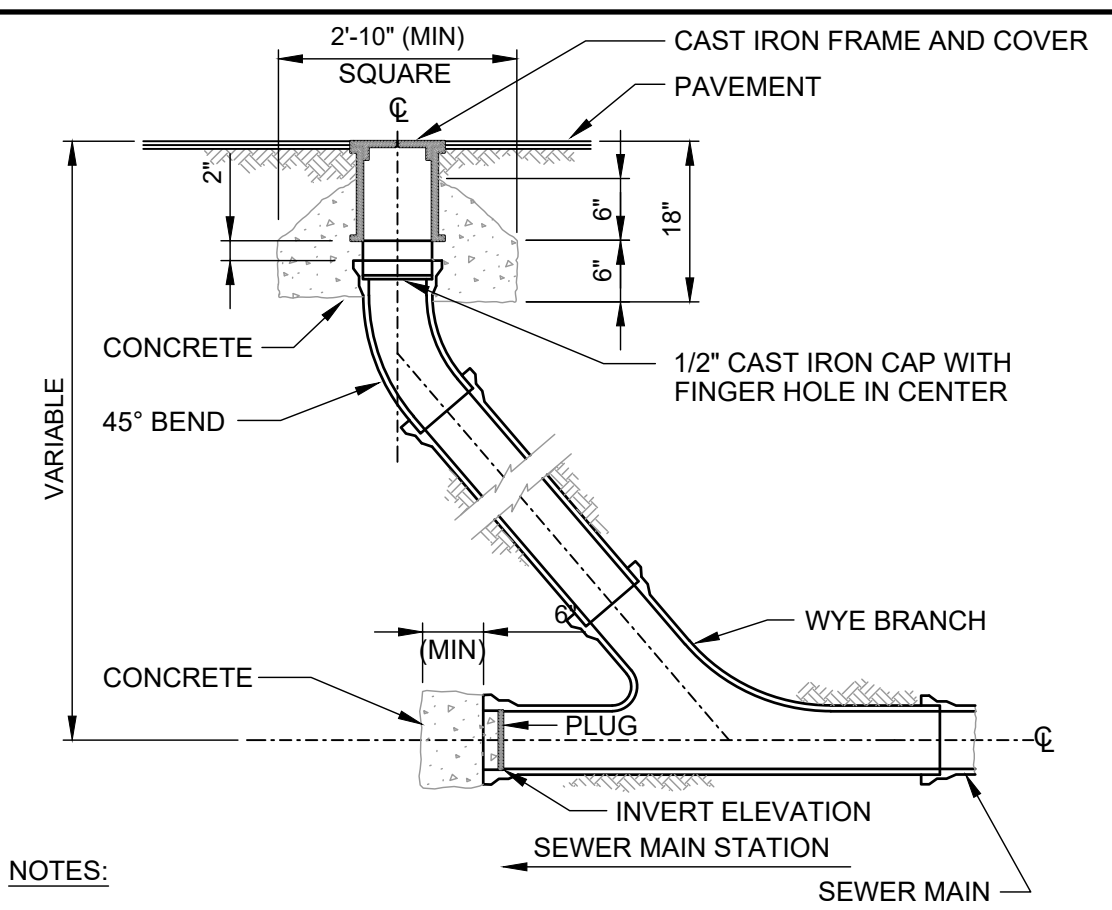
Consultant

2025.08.20
Issued
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Permit/Seal

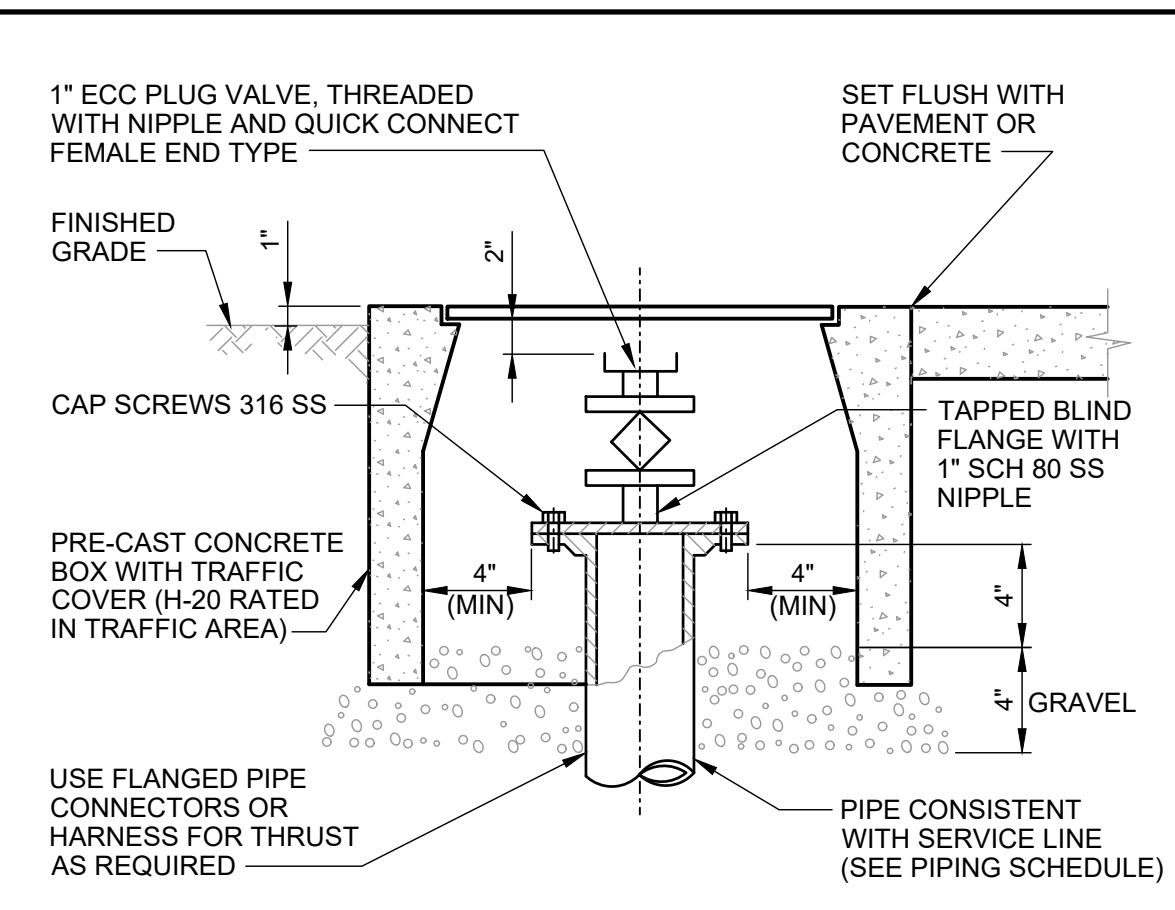
Client/Project
DOMINION WATER
SANITATION DISTRICT
CHATFIELD BASIN WRF
REFURBISHMENT
11310 CARETAKER RD,
LITTLETON, CO 80125

Project No.: 181301899
File Name: 01899C-000-001-TEMP
Scale:
Dwn: Dsgn: Chkd: YYY/MM/DD
2025.08.01
Title
GENERAL NOTES AND
SYMBOLS
Revision: 1
Drawing No.
C-001



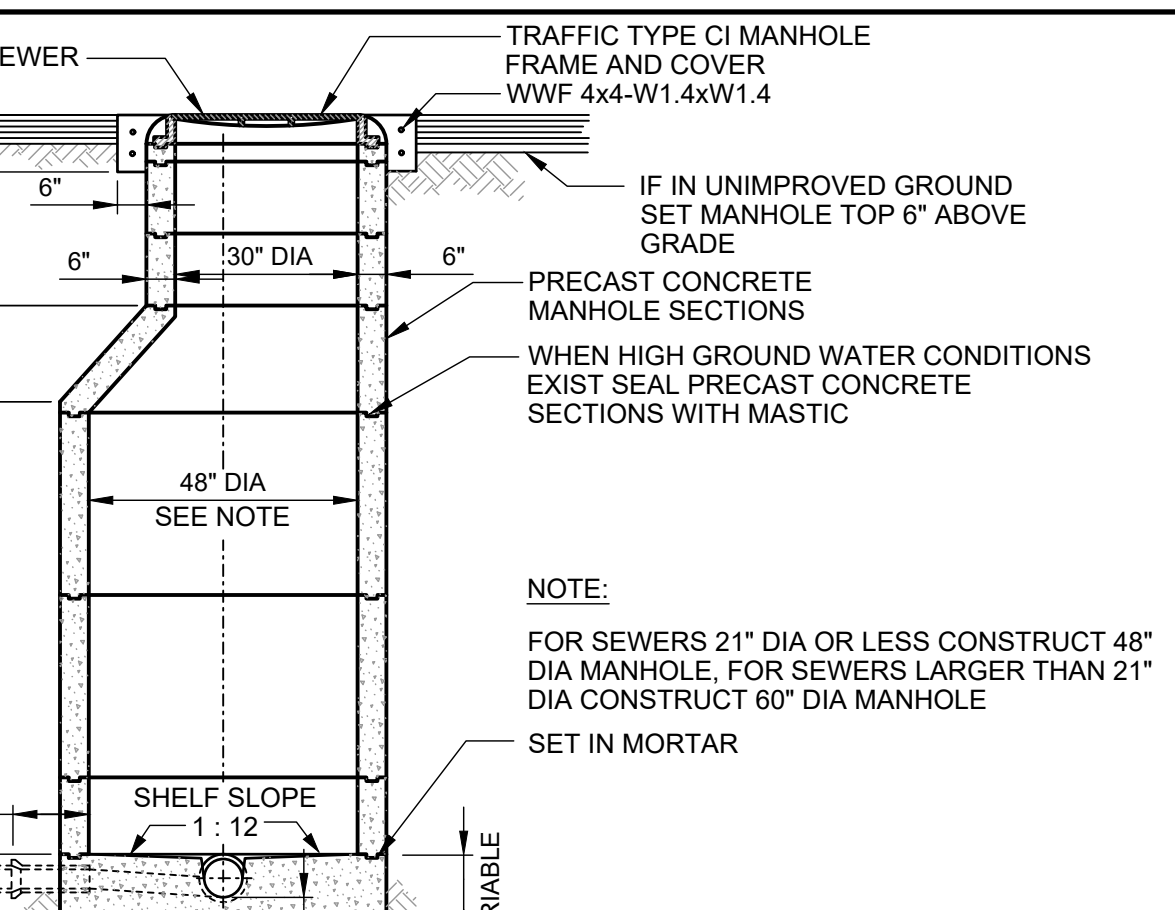
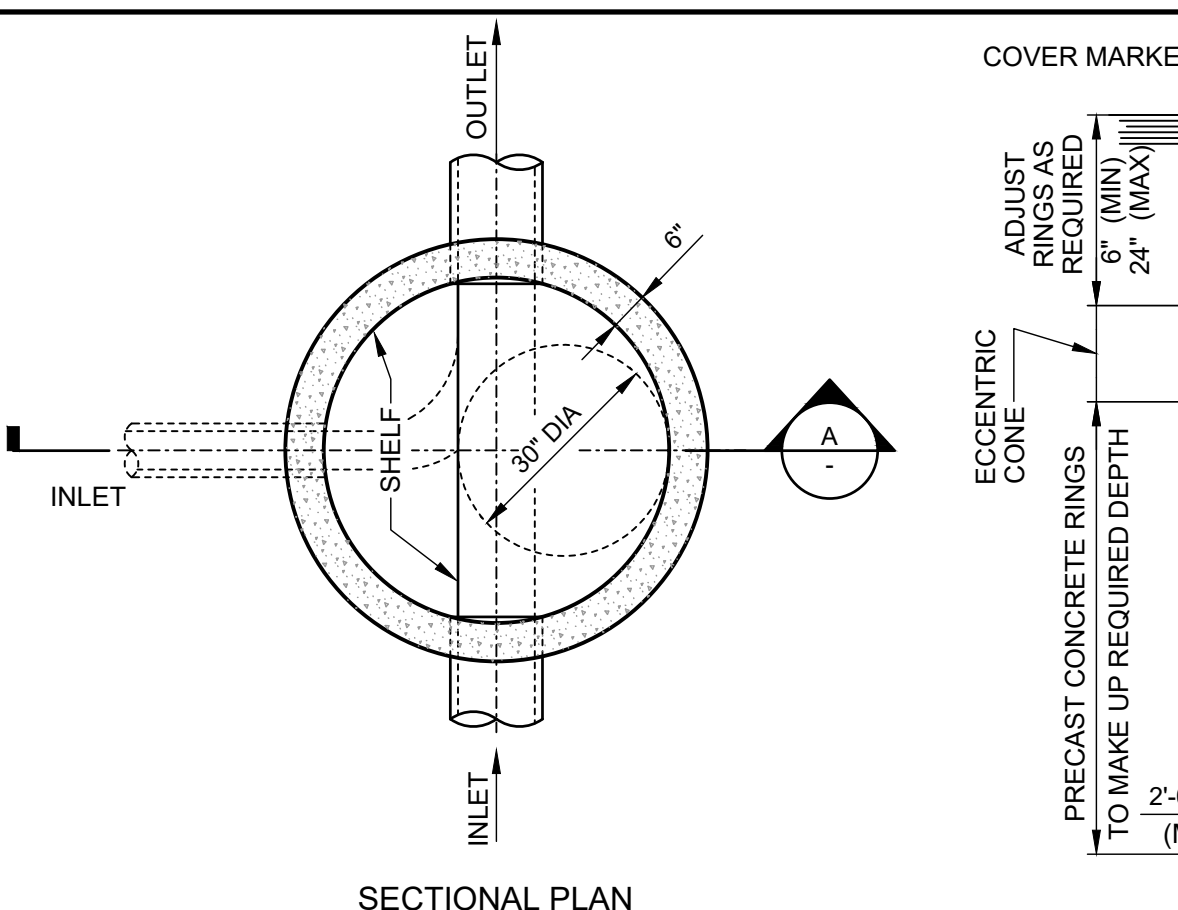
NOTES:
 1. IF IN UNIMPROVED AREA TOP SHALL BE 6\"/>

C-302 CLEANOUT TO GRADE (COTG)
 REV 010119



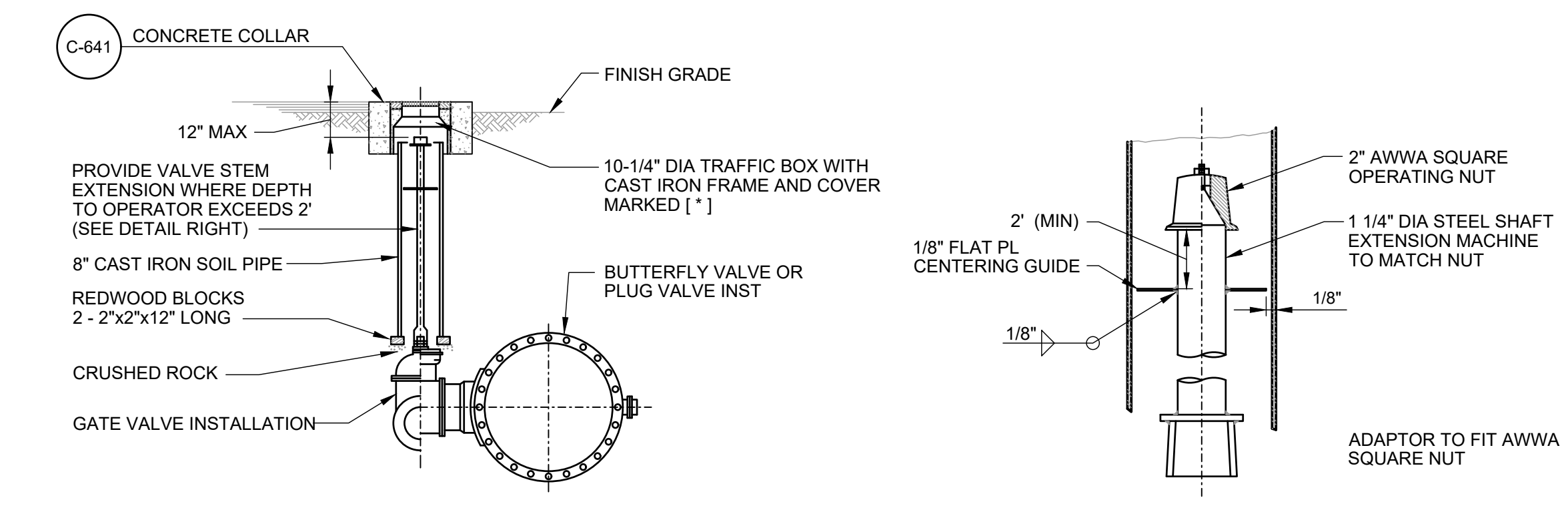
USE FLANGED PIPE CONNECTORS OR HARNESS FOR THRUST AS REQUIRED

C-305 PRESSURIZED SYSTEM CLEANOUT TO GRADE (PCOTG)
 REV 010119



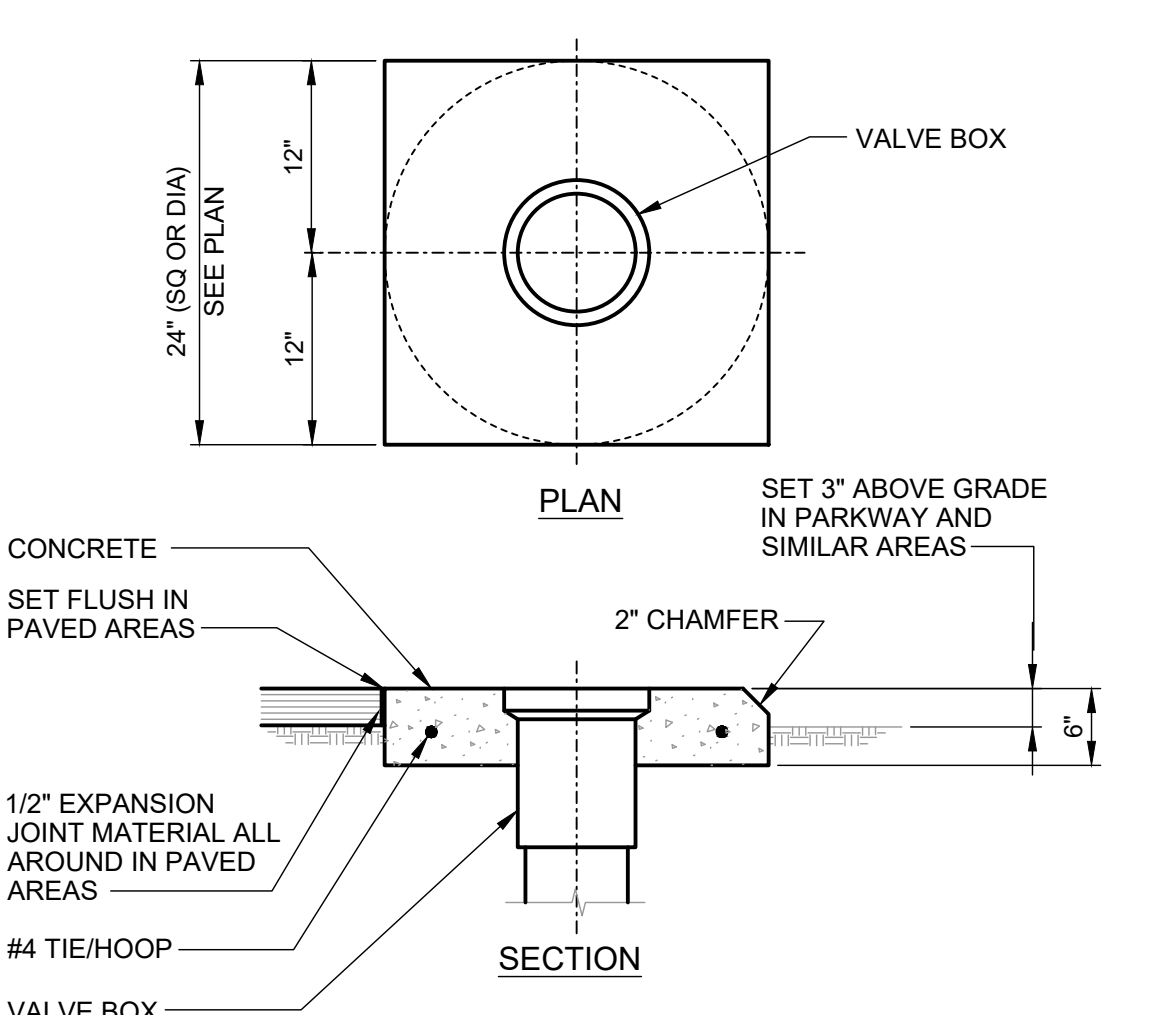
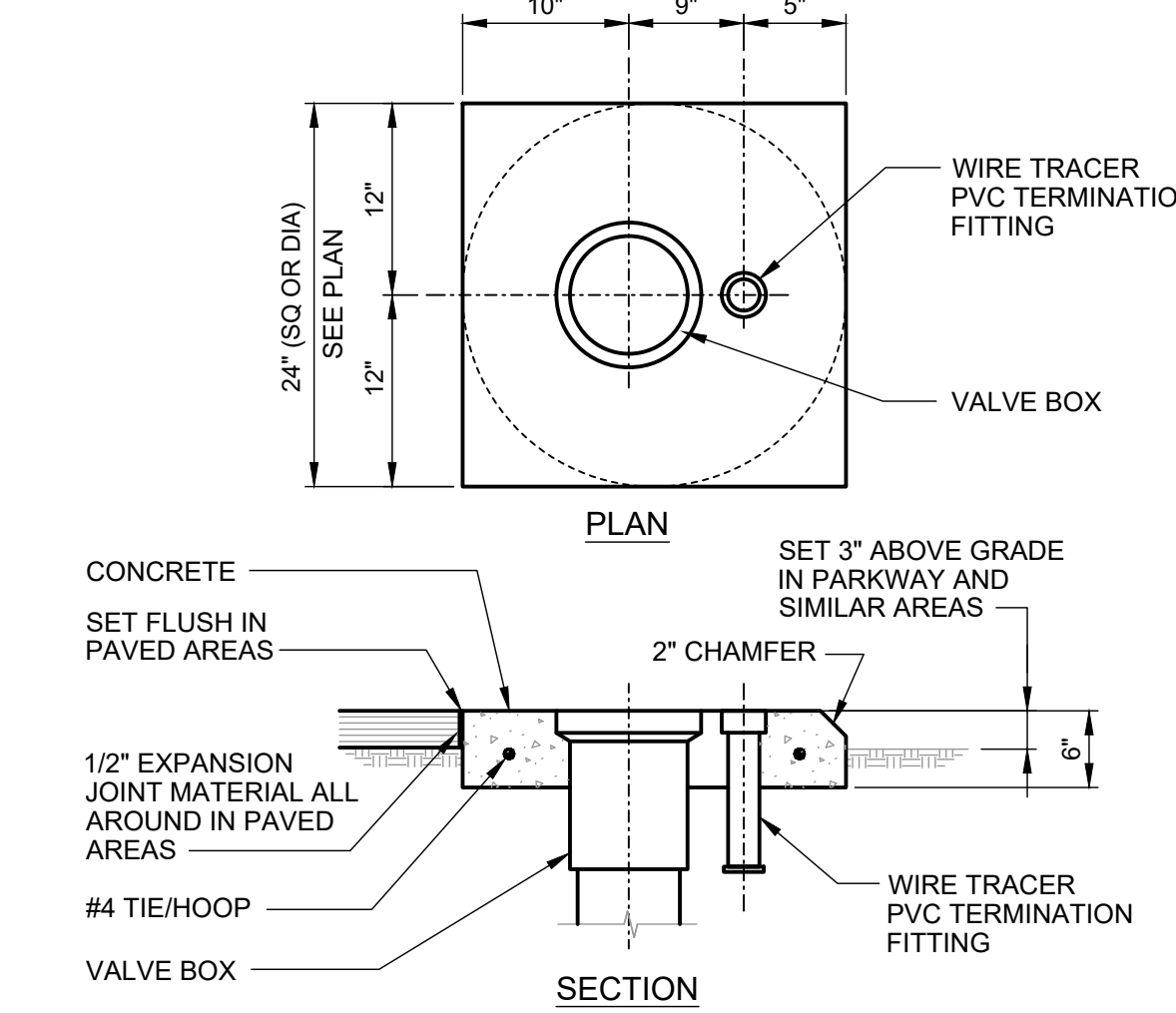
NOTE:
 FOR SEWERS 21\"/>

C-320 MANHOLE (MH) WITH ECCENTRIC CONE
 REV 010119

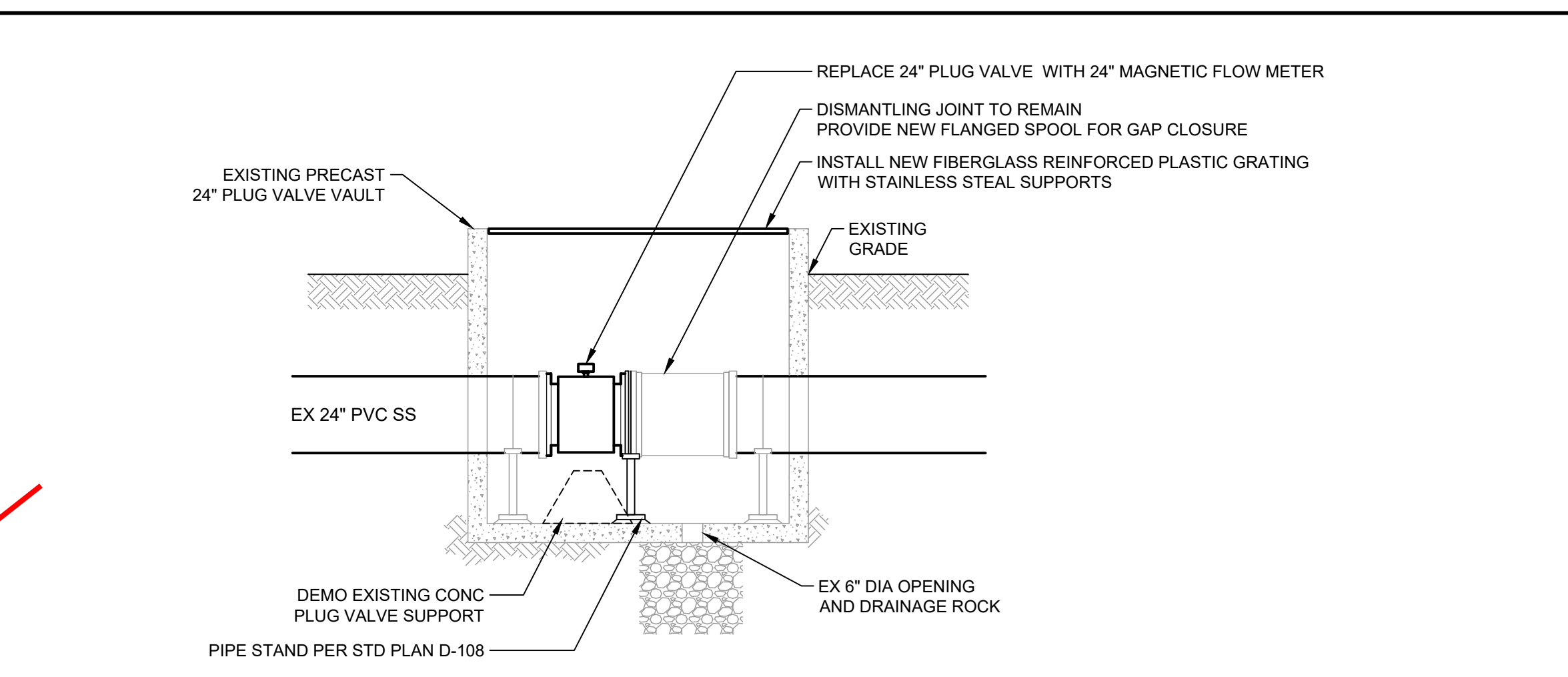


NOTES:
 PROVIDE PROTECTIVE COATING TO EXTERIOR SURFACE OF VALVE BODY IN ACCORDANCE WITH SPECS. FOR LUBRICATED PLUG VALVE, EXTEND LUBRICATION LINE TO GRADE PER MANUFACTURERS INSTRUCTIONS.

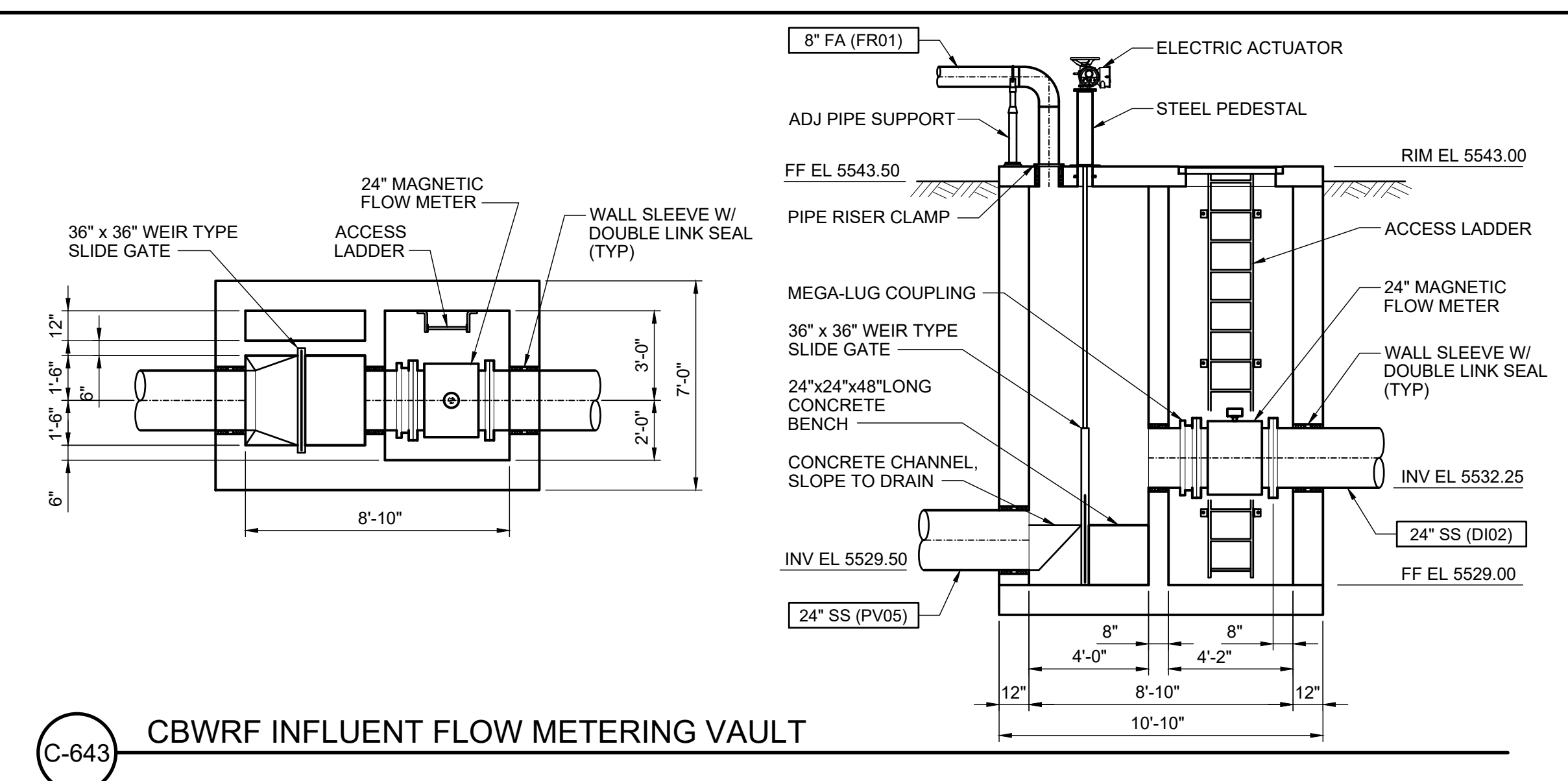
C-641 BURIED VALVE INSTALLATION
 REV 010119



C-641 VALVE BOX COLLAR
 REV 010119

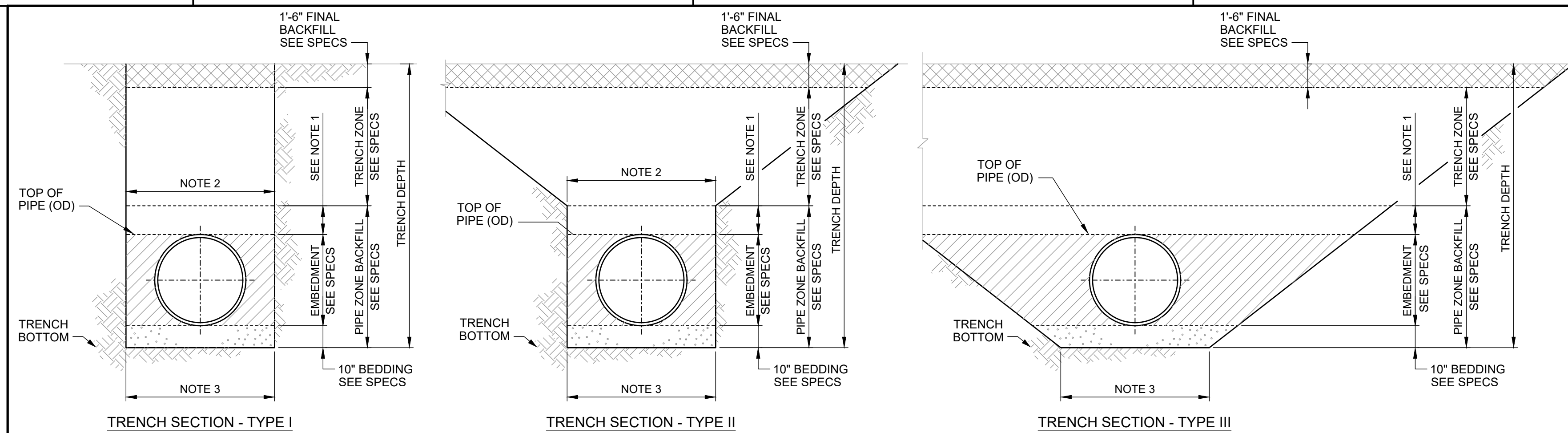


C-642 COMBINED INFLUENT FLOW METERING VAULT



C-643 CBWRF INFLUENT FLOW METERING VAULT

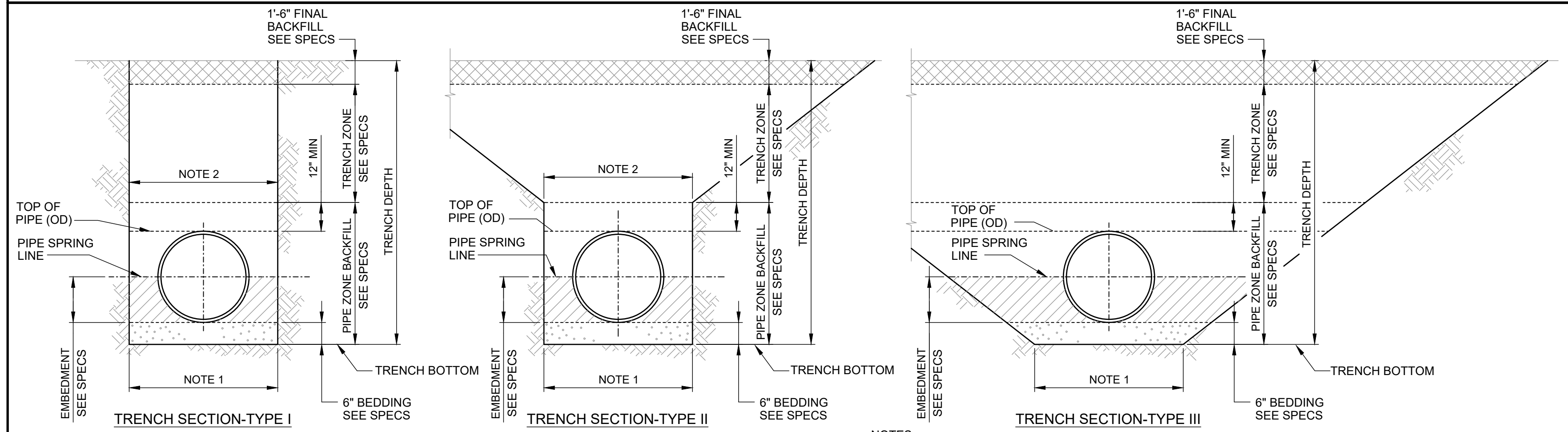
ASSISTANT DIRECTOR OF DEVELOPMENT REVIEW
 DATE
 THESE CONSTRUCTION DRAWINGS HAVE BEEN REVIEWED BY DOUGLAS COUNTY FOR LOCATION AND EXTENTS PERMIT ONLY.
 ENGINEERING DIVISION ACCEPTANCE BLOCK



C-601 TRENCH SECTION FLEXIBLE PIPE
REV 010119

- NOTES:**
1. 6" MIN FOR PIPE DIAMETER < 24"
12" MIN FOR PIPE DIAMETER > 24"
 2. MAX TRENCH WIDTH @ TOP OF PIPE:
OD + 36" FOR 18" AND LARGER PIPE OD
OD + 24" FOR LESS THAN 18"
 3. MIN TRENCH BOTTOM WIDTH:
OD + 24" FOR MECHANICAL COMPACTION

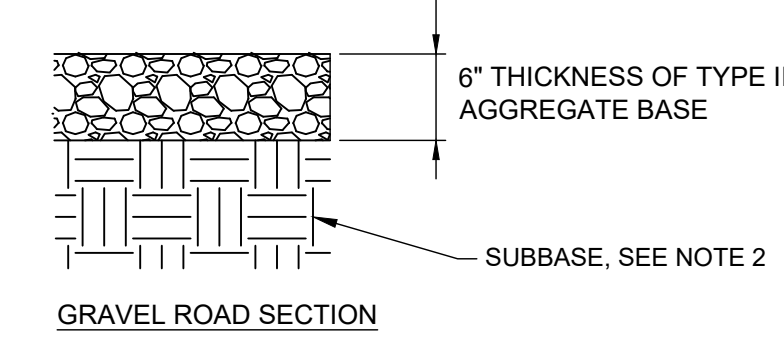
- FLEXIBLE PIPE REFERS TO ALL STEEL, DUCTILE-IRON, AND PLASTIC PIPES.
- TYPICAL TRENCH SECTIONS (I, II AND III) ARE TO BE USED ONLY WHERE STABLE, COMPACT SOIL CONDITIONS EXIST. IF BOULDERS OR LARGE OBSTRUCTIONS ARE ENCOUNTERED, TRENCH SECTIONS MAY BE DEEPER OR WIDER THAN SHOWN. THE ENGINEER SHALL BE ADVISED SHOULD THIS OCCUR.
- THE NEED FOR PROTECTIVE SYSTEMS AND EXCAVATION SLOPES SHALL BE DETERMINED CONSIDERING APPLICABLE LOCAL, STATE AND FEDERAL (OSHA) SAFETY STANDARDS AND REGULATIONS, AND GEOTECHNICAL CONSULTANTS' RECOMMENDATIONS.
- PROTECTIVE SYSTEMS SHALL BE DESIGNED AND BUILT IN ACCORDANCE WITH THE APPLICABLE LOCAL, STATE AND FEDERAL (OSHA) SAFETY STANDARDS AND REGULATIONS.
- SUPPORTING DOCUMENTATION SHALL BE SUBMITTED TO THE ENGINEER REGARDING PIPE DESIGN AND COMPLIANCE WITH APPLICABLE LOCAL, STATE AND FEDERAL (OSHA) SAFETY STANDARDS.
- UNSUPPORTED VERTICAL AND/OR SLOPING TRENCH WALL SLOPES SHALL NOT BE STEEPER THAN ALLOWED BY APPLICABLE LOCAL, STATE AND FEDERAL (OSHA) SAFETY STANDARDS AND REGULATIONS, UNLESS SUPPORTING DOCUMENTATION IS SUBMITTED, ACCORDING TO AFOREMENTIONED SAFETY STANDARDS.
- TRENCH SECTIONS OTHER THAN THE TYPICAL SECTIONS SHOWN MAY BE UTILIZED PROVIDED THEY COMPLY WITH APPLICABLE LOCAL, STATE AND FEDERAL (OSHA) SAFETY STANDARDS AND REGULATIONS. DOCUMENTATION SUPPORTING THIS COMPLIANCE AND PIPE DESIGN CALCULATIONS SHALL BE SUBMITTED TO THE ENGINEER.
- IF OVER-EXCAVATION DUE TO POOR FOUNDATION MATERIAL IS ORDERED BY THE ENGINEER, THE BACKFILL MATERIAL SHALL BE ACCORDING TO THE EARTHWORK SECTION OF THE SPECIFICATIONS ARTICLE ENTITLED, "FILL AND BACKFILL MATERIAL REQUIREMENTS."
- IF DURING CONSTRUCTION, THE WATER TABLE IS DISCOVERED TO BE ABOVE THE TRENCH BOTTOM, THE ENGINEER SHALL BE NOTIFIED, AND APPROPRIATE DEWATERING SHALL BE IMPLEMENTED TO LOWER THE WATER LEVEL BELOW THE TRENCH BOTTOM. THE BACKFILL MATERIAL SHALL BE ACCORDING TO THE EARTHWORK SECTIONS OF THE SPECIFICATIONS, OR AS ORDERED BY THE ENGINEER.



C-602 TRENCH SECTION RIGID PIPE
REV 010119

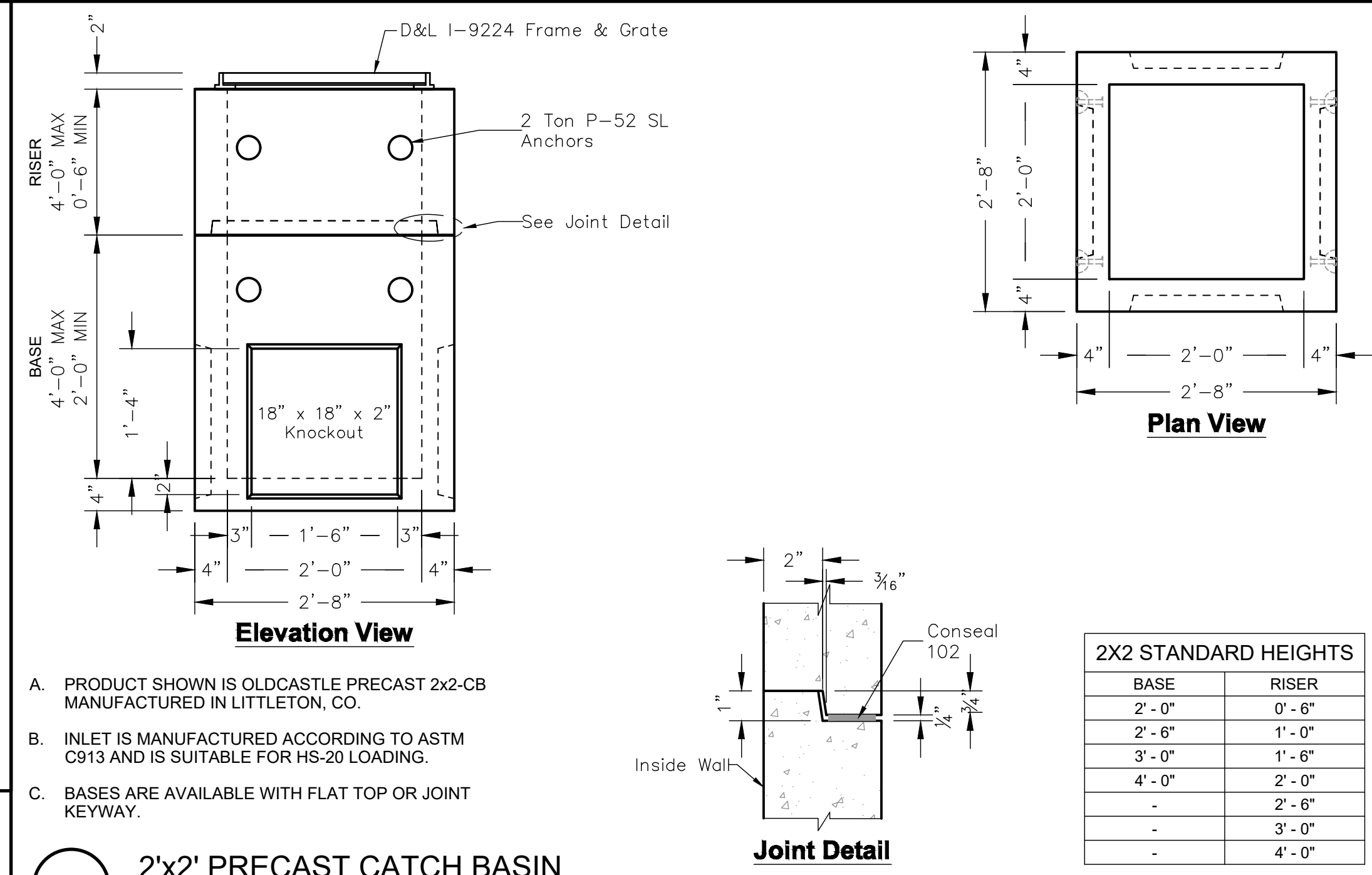
- NOTES:**
1. MIN TRENCH BOTTOM WIDTH:
OD + 24" FOR MECHANICAL COMPACTION
OD + 18" FOR WATER CONSOLIDATION
 2. MAX TRENCH WIDTH @ TOP OF PIPE:
OD + 36" FOR 18" AND LARGER PIPE OD
OD + 24" FOR LESS THAN 18" PIPE OD

- RIGID PIPE REFERS TO ALL TYPES OF REINFORCED AND UN-REINFORCED CONCRETE PIPE AND VITRIFIED CLAY PIPE.
- TYPICAL TRENCH SECTIONS (I, II AND III) ARE TO BE USED ONLY WHERE STABLE, COMPACT SOIL CONDITIONS EXIST. IF BOULDERS OR LARGE OBSTRUCTIONS ARE ENCOUNTERED, TRENCH SECTIONS MAY BE DEEPER OR WIDER THAN SHOWN. THE ENGINEER SHALL BE ADVISED SHOULD THIS OCCUR.
- THE NEED FOR PROTECTIVE SYSTEMS, AND EXCAVATION SLOPES SHALL BE DETERMINED CONSIDERING APPLICABLE LOCAL, STATE AND FEDERAL (OSHA) SAFETY STANDARDS AND REGULATIONS, AND GEOTECHNICAL CONSULTANTS' RECOMMENDATIONS.
- PROTECTIVE SYSTEMS SHALL BE DESIGNED AND BUILT IN ACCORDANCE WITH THE APPLICABLE LOCAL, STATE AND FEDERAL (OSHA) SAFETY STANDARDS AND REGULATIONS.
- SUPPORTING DOCUMENTATION SHALL BE SUBMITTED TO THE ENGINEER REGARDING PIPE DESIGN AND COMPLIANCE WITH APPLICABLE LOCAL, STATE AND FEDERAL (OSHA) SAFETY STANDARDS.
- UNSUPPORTED VERTICAL AND/OR SLOPING TRENCH WALL SLOPES SHALL NOT BE STEEPER THAN ALLOWED BY APPLICABLE LOCAL, STATE AND FEDERAL (OSHA) SAFETY STANDARDS AND REGULATIONS, UNLESS SUPPORTING DOCUMENTATION IS SUBMITTED, ACCORDING TO AFOREMENTIONED SAFETY STANDARDS.
- IF OVER-EXCAVATION DUE TO POOR FOUNDATION MATERIAL IS ORDERED BY THE ENGINEER, THE BACKFILL MATERIAL SHALL BE ACCORDING TO THE EARTHWORK SECTION OF THE SPECIFICATIONS ARTICLE ENTITLED, "FILL AND BACKFILL MATERIAL REQUIREMENTS."
- IF DURING CONSTRUCTION, THE WATER TABLE IS DISCOVERED TO BE ABOVE THE TRENCH BOTTOM, THE ENGINEER SHALL BE NOTIFIED, AND APPROPRIATE DEWATERING SHALL BE IMPLEMENTED TO LOWER THE WATER LEVEL BELOW THE TRENCH BOTTOM. THE BACKFILL MATERIAL SHALL BE ACCORDING TO THE EARTHWORK SECTIONS OF THE SPECIFICATIONS, OR AS ORDERED BY THE ENGINEER.
- TRENCH SECTIONS OTHER THAN THE TYPICAL SECTIONS SHOWN MAY BE UTILIZED PROVIDED THEY COMPLY WITH APPLICABLE LOCAL, STATE AND FEDERAL (OSHA) SAFETY STANDARDS AND REGULATIONS. DOCUMENTATION SUPPORTING THIS COMPLIANCE AND PIPE DESIGN CALCULATIONS SHALL BE SUBMITTED TO THE ENGINEER.



- NOTES:**
1. AGGREGATE BASE MATERIAL SHALL ADHERE TO SPECIFICATION SECTION 32 11 13.
 2. COMPACT UPPER 8-INCHES OF ROAD SUBGRADE TO 95% RELATIVE COMPACTION.

C-902 GRAVEL PAVEMENT



C-100 2'x2' PRECAST CATCH BASIN

- PRODUCT SHOWN IS OLDCASTLE PRECAST 2x2-CB MANUFACTURED IN LITTLETON, CO.
- INLET IS MANUFACTURED ACCORDING TO ASTM C913 AND IS SUITABLE FOR HS-20 LOADING.
- BASES ARE AVAILABLE WITH FLAT TOP OR JOINT KEYWAY.

2X2 STANDARD HEIGHTS	
BASE	RISER
2'-0"	0'-6"
2'-6"	1'-0"
3'-0"	1'-6"
4'-0"	2'-0"
-	2'-6"
-	3'-0"
-	4'-0"

Consultant

Permit/Seal

Revision

Issued

Client/Project
DOMINION WATER
SANITATION DISTRICT

CHAIFIELD BASIN WRF
REFURBISHMENT

11310 CARETAKER RD,
LITTLETON, CO 80125

Project No.: 181301899
File Name: 01899C-WP3-000-003

Scale:
Dwn. Dsgn. Chkd. 2025.08.01
YYYY.MM.DD

Title
STANDARD DETAILS - II

Revision: 3
Drawing No.

C-003

ASSISTANT DIRECTOR OF DEVELOPMENT REVIEW

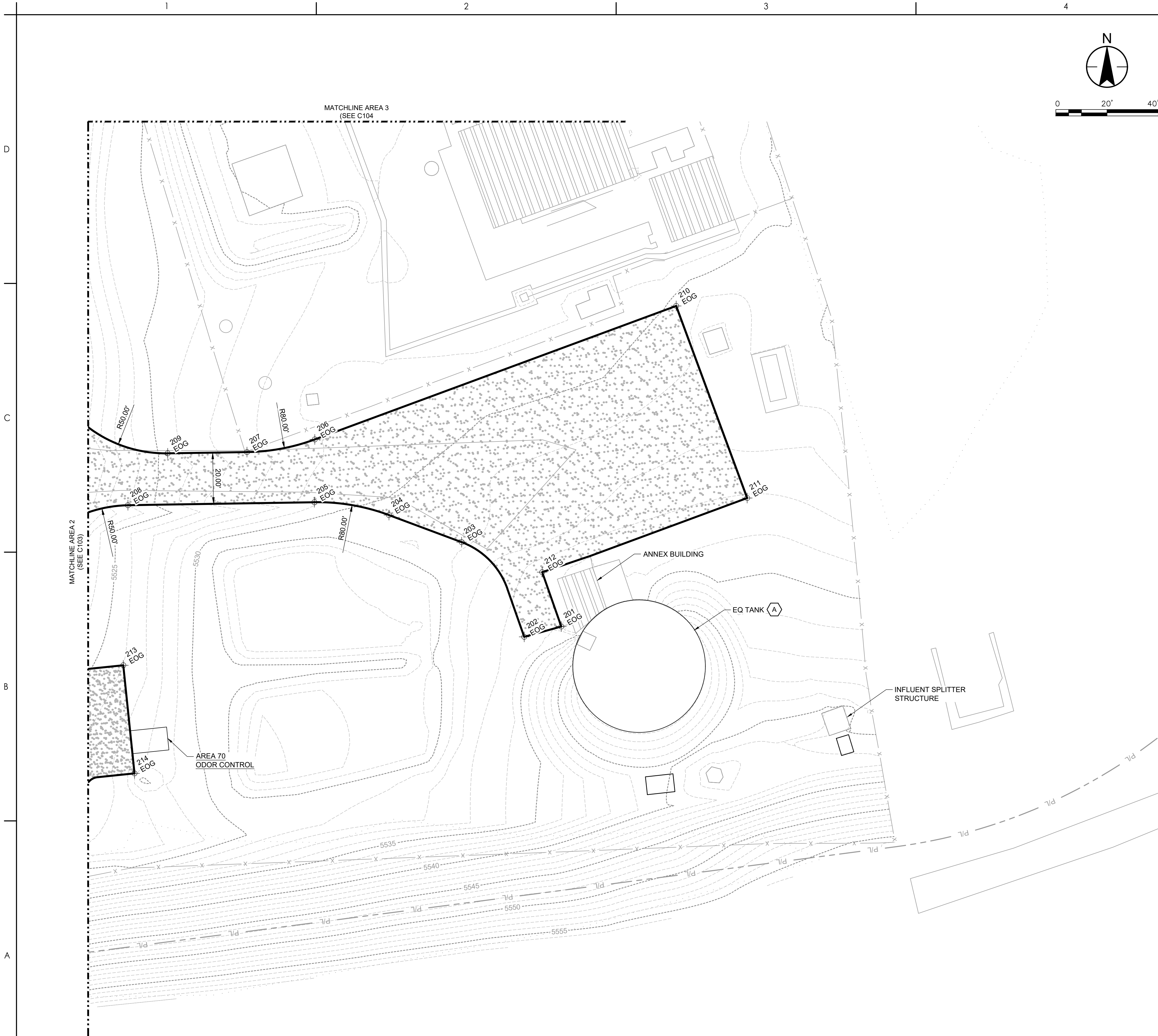
DATE

THESE CONSTRUCTION DRAWINGS HAVE BEEN REVIEWED BY DOUGLAS COUNTY FOR LOCATION AND EXTENTS PERMIT ONLY.

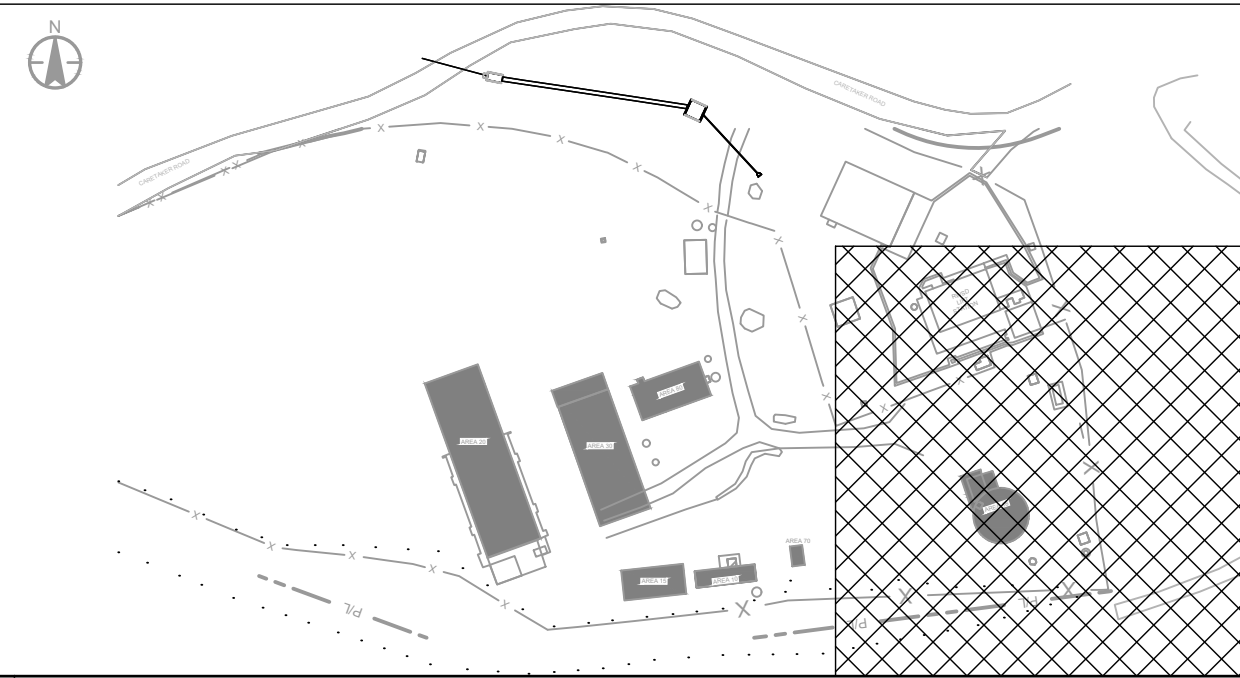
ENGINEERING DIVISION ACCEPTANCE BLOCK

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KEY PLAN



GENERAL SHEET NOTES

1. PRIOR TO THE START OF CONSTRUCTION, THE CONTRACTOR SHALL LOCATE EXISTING UTILITIES IN AND AROUND THE AREAS OF NEW CONSTRUCTION. THE CONTRACTOR SHALL POTHOLE FOR EXISTING UTILITIES PRIOR TO SUBMITTAL OF SHOP DRAWINGS, FOR POINTS OF CONNECTION.
2. ALL UTILITIES SHALL BE PROTECTED IN PLACE UNLESS SHOWN OTHERWISE.

SHEET KEYNOTES

- A. AEROBIC DIGESTER TO BE RE-PURPOSED AS EQUALIZATION (EQ) TANK

POINT TABLE

POINT #	ELEVATION	NORTHING	EASTING	DESCRIPTION
201	5533.97	1601491.94	3114001.69	EOG
202	5533.54	1601487.89	3113987.22	EOG
203	5532.29	1601524.88	3113962.78	EOG
204	5530.86	1601535.46	3113934.38	EOG
205	5529.42	1601540.49	3113905.21	EOG
206	5529.37	1601565.03	3113905.40	EOG
207	5528.00	1601560.08	3113878.92	EOG
208	5521.90	1601539.32	3113832.40	EOG
209	5524.11	1601559.60	3113847.93	EOG
210	5530.27	1601617.18	3114046.58	EOG
211	5533.13	1601542.14	3114074.30	EOG
212	5533.85	1601513.16	3113994.25	EOG
213	5526.20	1601476.79	3113830.58	EOG
214	5526.63	1601434.55	3113834.96	EOG

1 ENLARGED AREA 1 SITE PLAN
C-101 SCALE: 3"=1'-0"

ASSISTANT DIRECTOR OF DEVELOPMENT REVIEW

DATE

THESE CONSTRUCTION DRAWINGS HAVE BEEN REVIEWED BY DOUGLAS COUNTY FOR LOCATION AND EXTENTS PERMIT ONLY.

ENGINEERING DIVISION ACCEPTANCE BLOCK



Consultant

Revision

By: _____

App'd: _____

2025.08.01

YYMM.DD

Permit/Seal

ISSUED

By: _____

App'd: _____

2025.08.01

YYMM.DD

Client/Project

DOMINION WATER SANITATION DISTRICT

CHAIFIELD BASIN WRF REFURBISHMENT

11310 CARETAKER RD, LITTLETON, CO 80125

Project No.: 181301899

File Name: 01899C-WP3-100-102-104

Scale: SCALE

Dwn: _____ Dsgn: _____ Chkd: _____

2025.08.01

YYMM.DD

Title

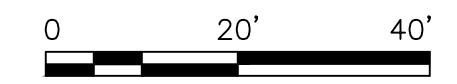
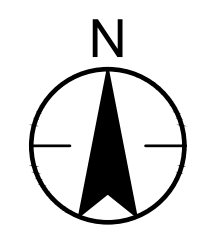
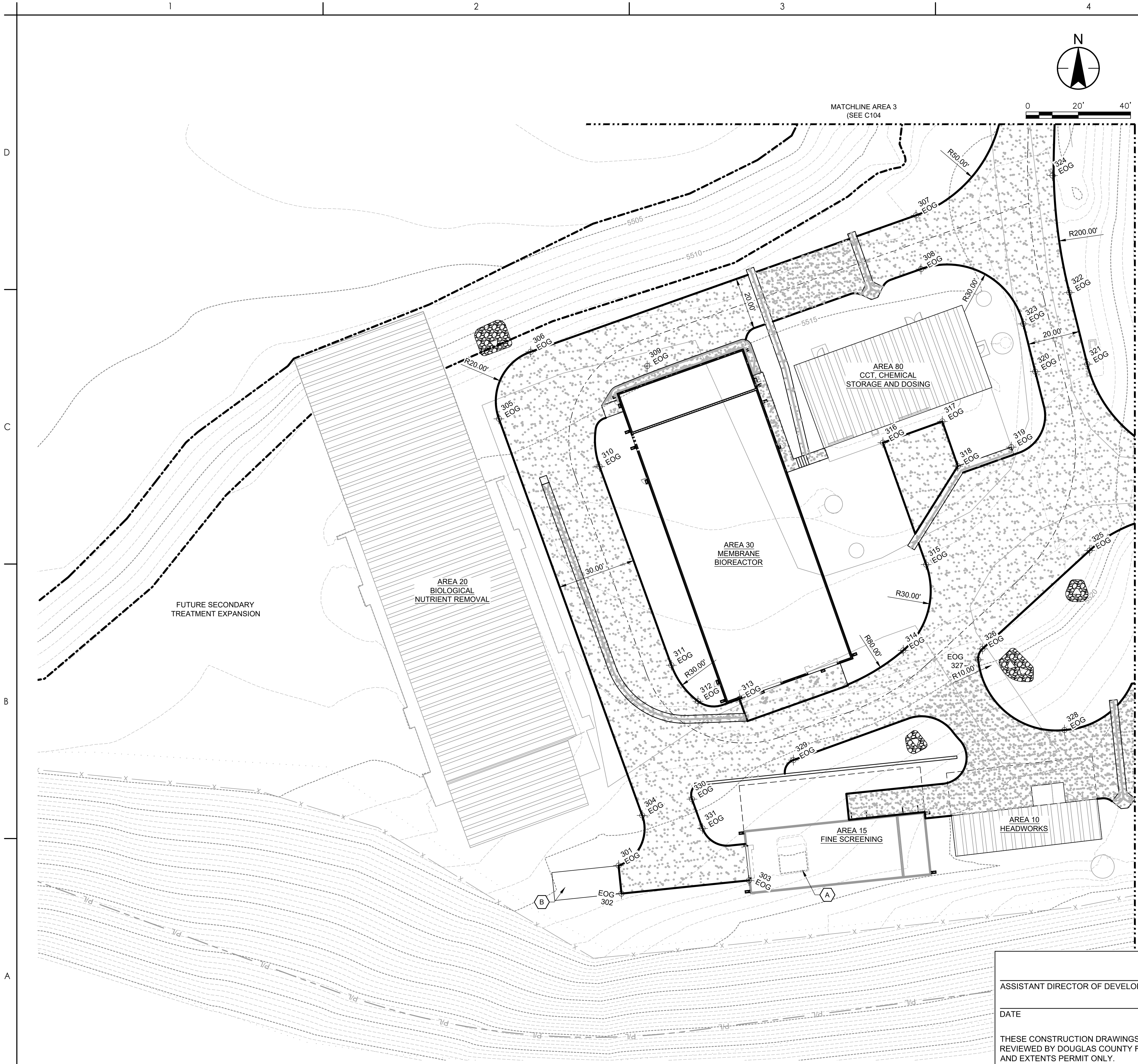
ENLARGED SITE PLAN - AREA 1

Revision: 6

Drawing No.

C-102

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1 ENLARGED AREA 2 SITE PLAN
 C-101 SCALE: 3"=1'-0"

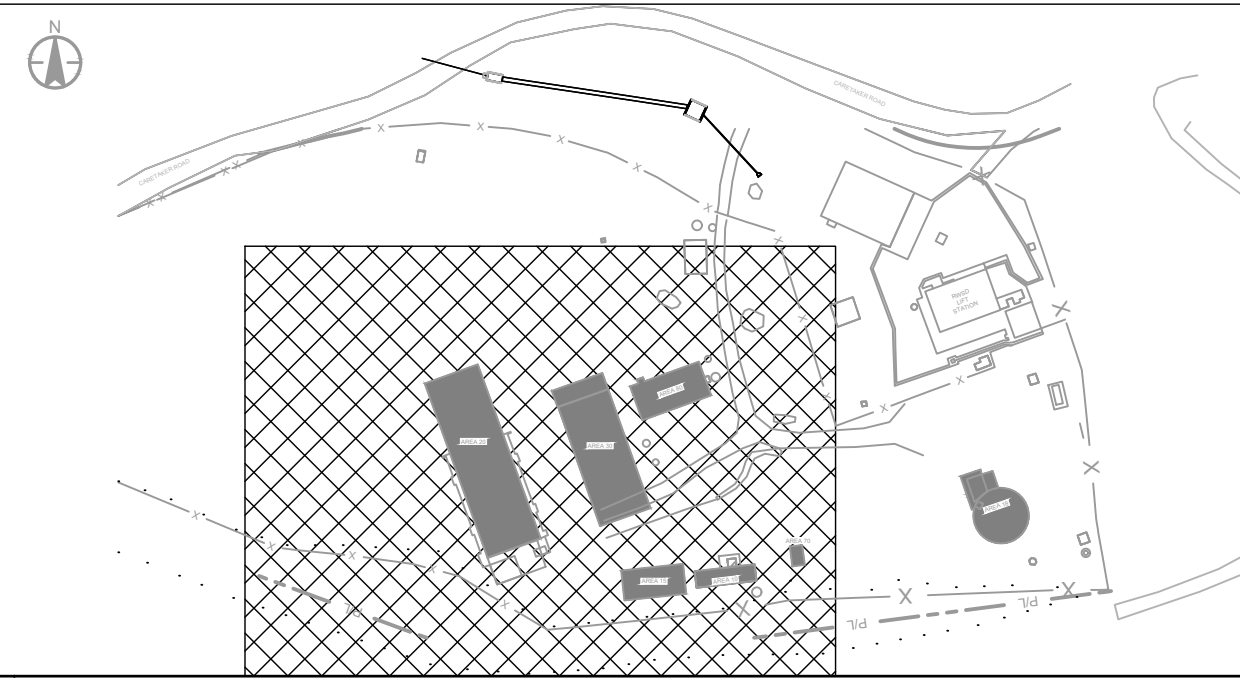
ASSISTANT DIRECTOR OF DEVELOPMENT REVIEW

DATE

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ENGINEERING DIVISION ACCEPTANCE BLOCK

KEY PLAN



GENERAL SHEET NOTES

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- ALL UTILITIES SHALL BE PROTECTED IN PLACE UNLESS SHOWN OTHERWISE.

SHEET KEYNOTES

- A. REMOVE GRIT DRYING BED.
- B. REMOVE EXISTING CONCRETE SLAB.

POINT TABLE

POINT #	ELEVATION	NORTHING	EASTING	DESCRIPTION
301	5523.35	1601405.62	3113619.37	EOG
302	5523.35	1601394.93	3113620.48	EOG
303	5524.45	1601399.99	3113669.25	EOG
304	5520.95	1601424.84	3113628.41	EOG
305	5515.60	1601576.52	3113573.60	EOG
306	5514.72	1601602.17	3113585.74	EOG
307	5514.63	1601654.36	3113733.15	EOG
308	5514.95	1601633.82	3113735.06	EOG
309	5515.31	1601596.73	3113630.30	EOG
310	5516.93	1601558.26	3113612.10	EOG
311	5517.46	1601482.29	3113639.55	EOG
312	5517.50	1601468.50	3113649.74	EOG
313	5518.00	1601469.39	3113665.63	EOG
314	5519.22	1601487.96	3113728.27	EOG
315	5516.09	1601520.76	3113737.02	EOG
316	5515.98	1601567.39	3113720.49	EOG
317	5516.00	1601575.51	3113743.20	EOG
318	5515.81	1601558.44	3113749.12	EOG
319	5515.69	1601565.70	3113769.59	EOG
320	5517.08	1601594.57	3113778.75	EOG
321	5518.08	1601597.44	3113798.65	EOG
322	5516.94	1601624.83	3113791.79	EOG
323	5516.70	1601612.84	3113774.17	EOG
324	5515.41	1601669.57	3113785.34	EOG
325	5518.70	1601526.17	3113799.55	EOG
326	5519.38	1601488.53	3113758.54	EOG
327	5519.85	1601484.36	3113756.95	EOG
328	5524.94	1601457.48	3113789.90	EOG
329	5518.28	1601446.00	3113686.24	EOG
330	5521.30	1601431.05	3113647.43	EOG
331	5522.78	1601419.85	3113651.48	EOG



Revision	By	App'd	YYMM.DD
1			YYMM.DD

Issued	By	App'd	YYMM.DD
1			2025.08.20

Permit/Seal

Client/Project
 DOMINION WATER
 SANITATION DISTRICT

CHAITHFIELD BASIN WRF
 REFURBISHMENT

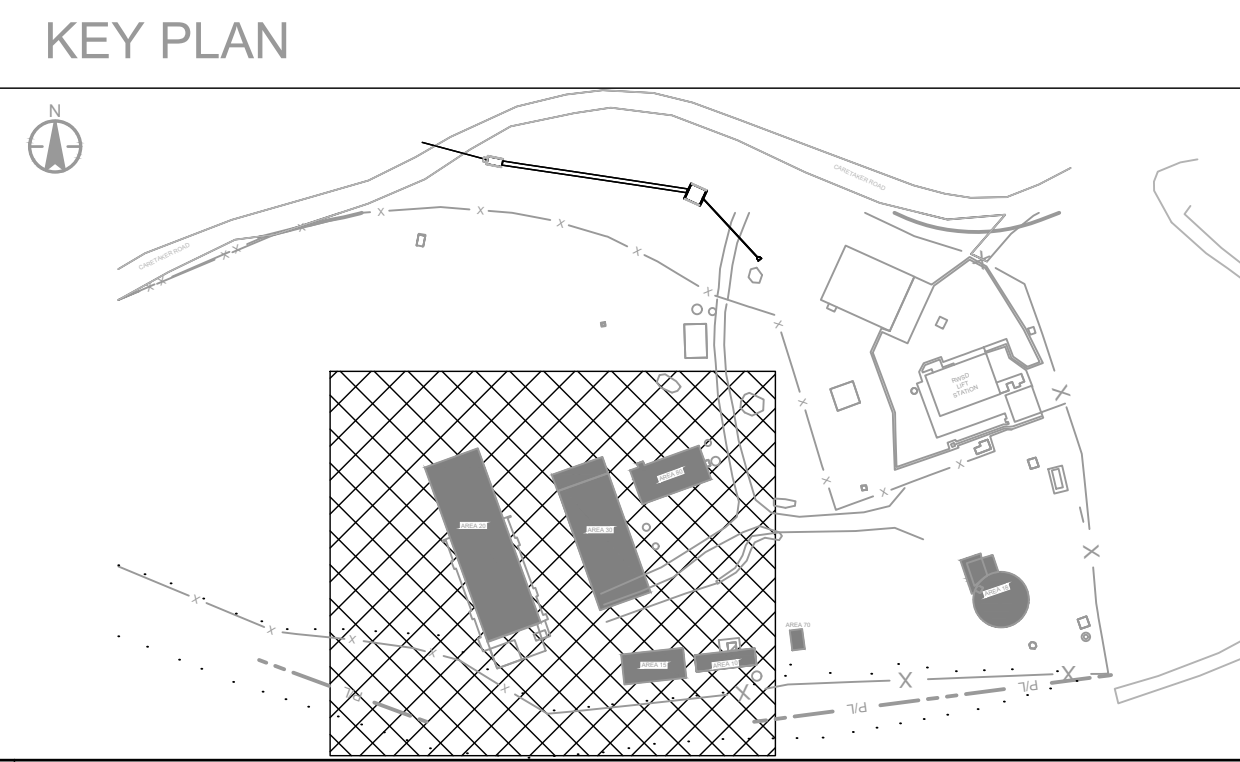
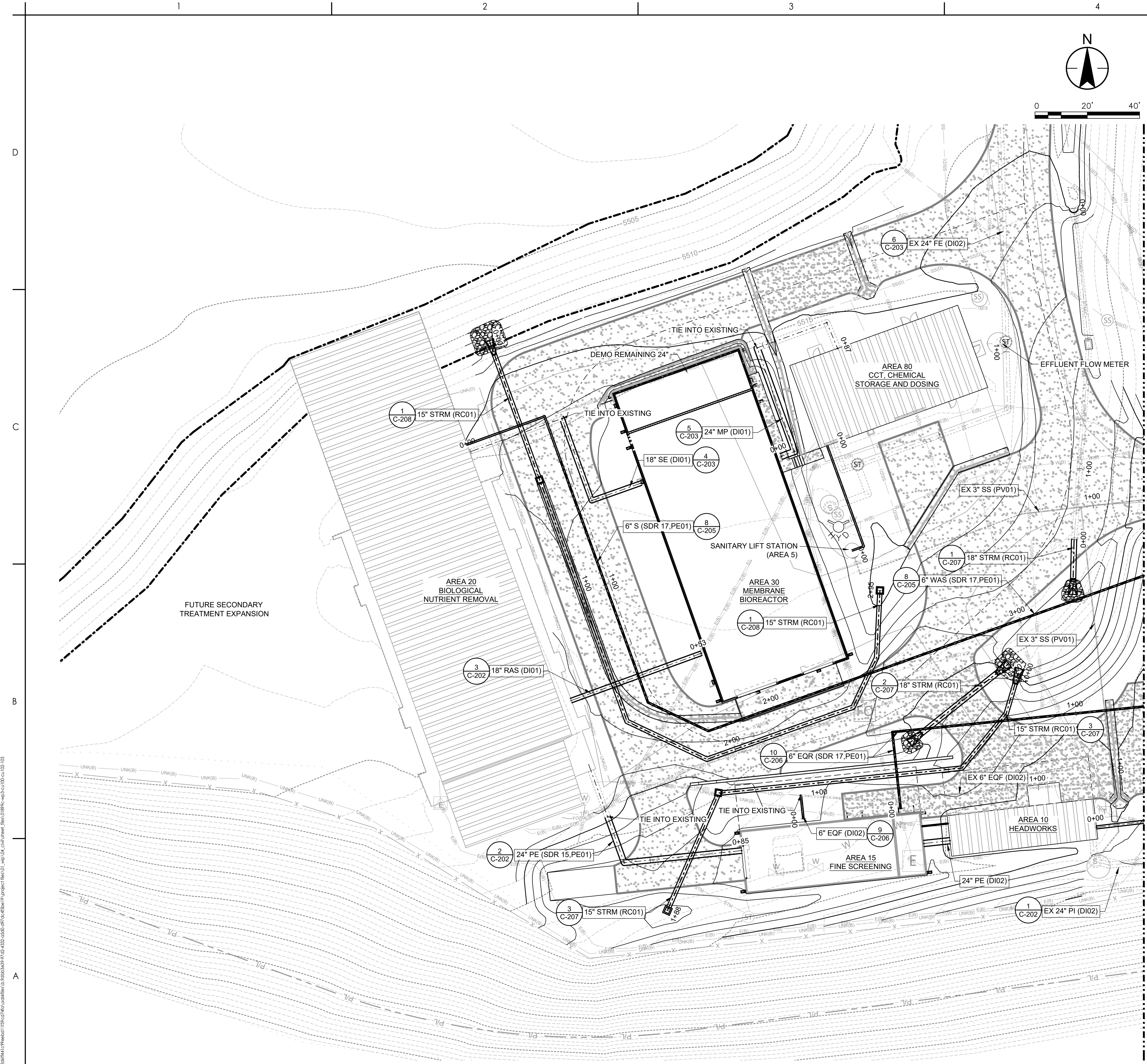
11310 CARETAKER RD,
 LITTLETON, CO 80125

Project No.: 181301899
 File Name: 01899C-WP3-100-102-104
 Scale: SCALE

Dwn. Dsgn. Chkd. 2025.08.01
 YYYMM.DD

Title
 ENLARGED SITE PLAN - AREA
 2

Revision: 7
 Drawing No.



GENERAL SHEET NOTES

1. PRIOR TO THE START OF CONSTRUCTION, THE CONTRACTOR SHALL LOCATE EXISTING UTILITIES IN AND AROUND THE AREAS OF NEW CONSTRUCTION. THE CONTRACTOR SHALL POTHOLE FOR EXISTING UTILITIES PRIOR TO SUBMITTAL OF SHOP DRAWINGS, FOR POINTS OF CONNECTION.
2. ALL UTILITIES SHALL BE PROTECTED IN PLACE UNLESS SHOWN OTHERWISE.

SHEET KEYNOTES

A. XXXXX

1 ENLARGED AREA 2 UTILITY PLAN
 C-103 SCALE: 1:20

ASSISTANT DIRECTOR OF DEVELOPMENT REVIEW

DATE

THESE CONSTRUCTION DRAWINGS HAVE BEEN REVIEWED BY DOUGLAS COUNTY FOR LOCATION AND EXTENTS PERMIT ONLY.

ENGINEERING DIVISION ACCEPTANCE BLOCK



Consultant

Revision	By	App'd

	By	App'd

Permit/Seal

	By	App'd

Client/Project
 DOMINION WATER
 SANITATION DISTRICT

CHAITHED BASIN WRF
 REFURBISHMENT

11310 CARETAKER RD,
 LITTLETON, CO 80125

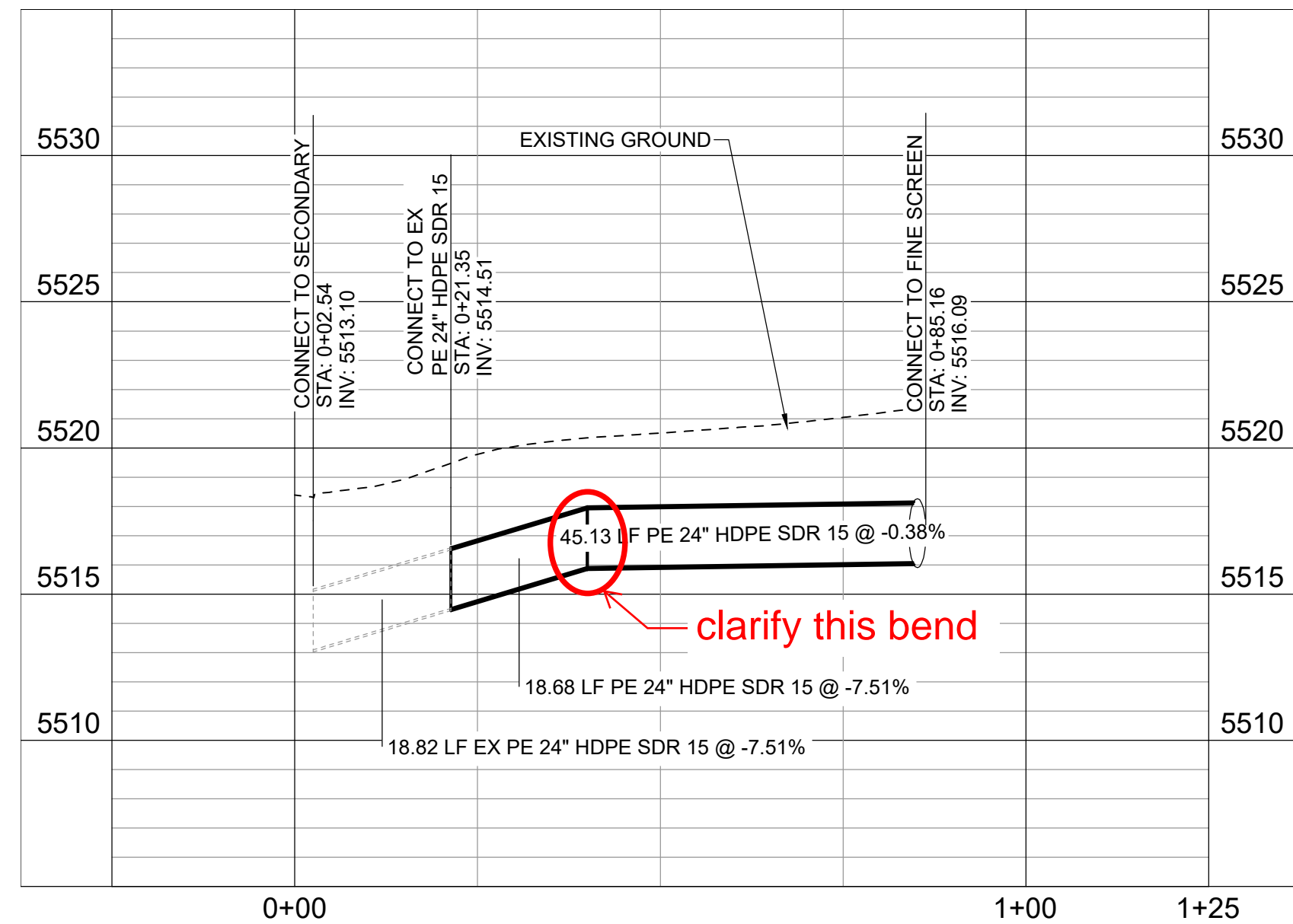
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Dwn.	Dsgn.	Chkd.	YYYY.MM.DD

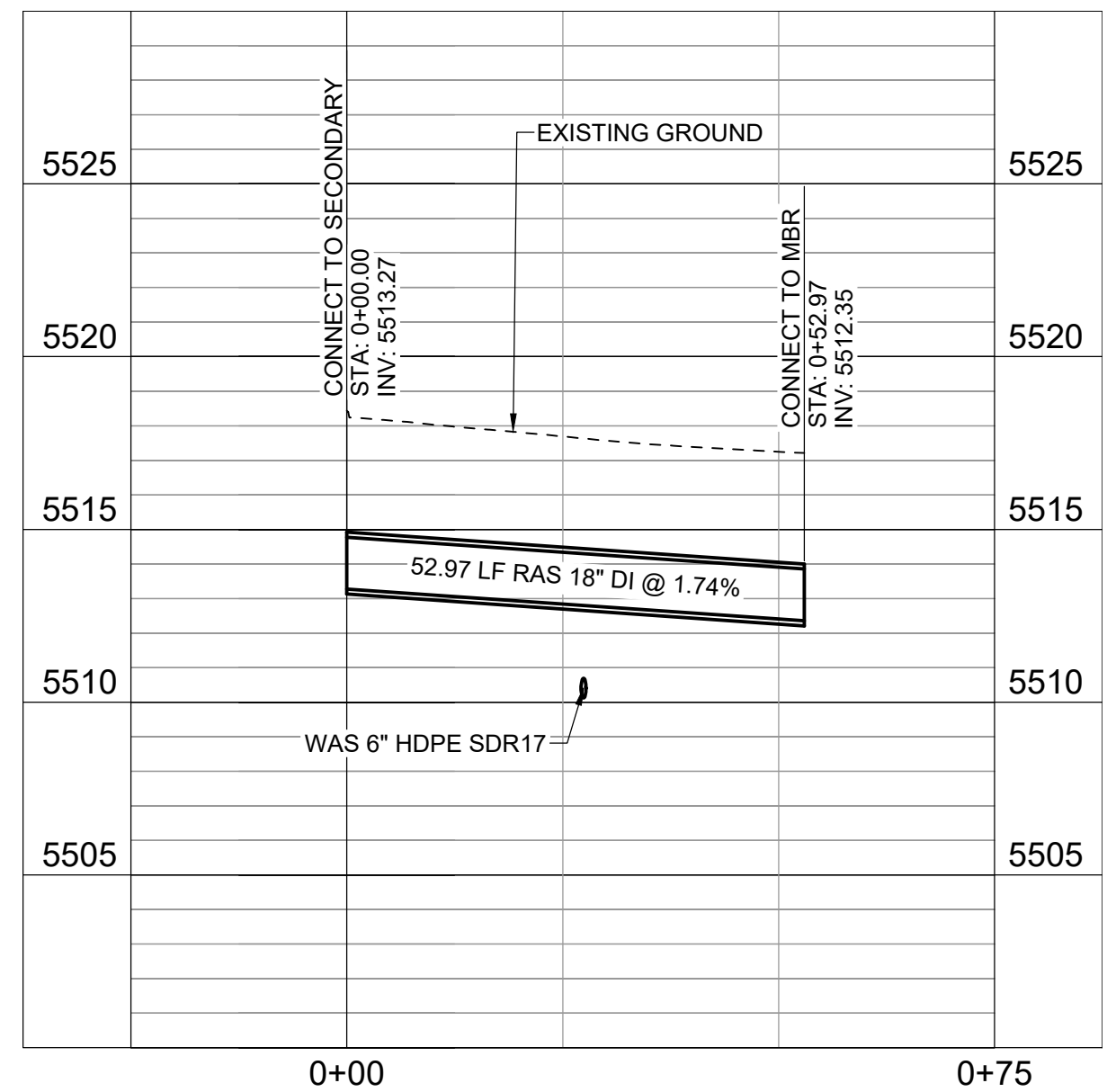
Title
 ENLARGED UTILITY PLAN
 AREA 2

Revision: 15
 Drawing No. CU103

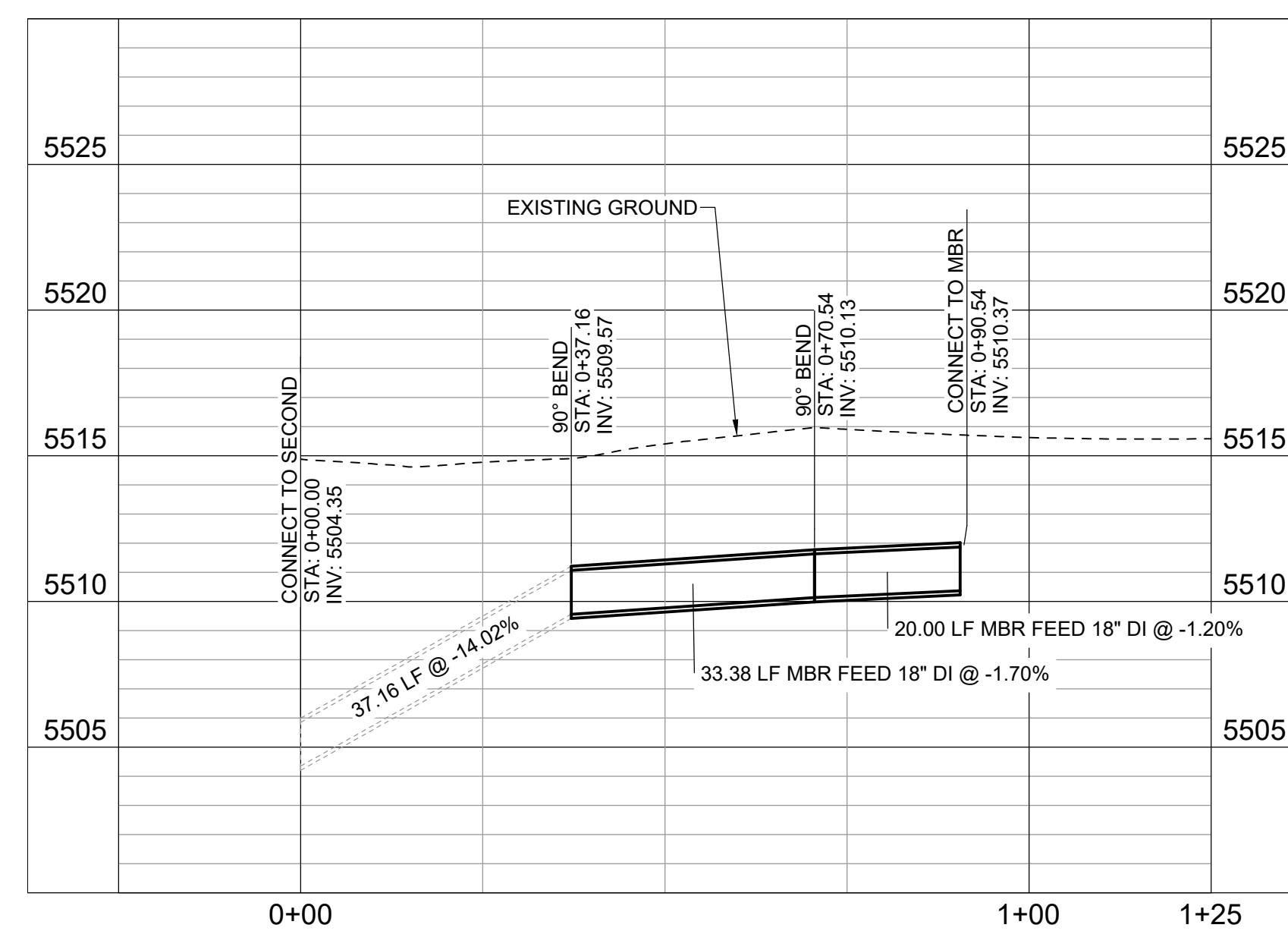
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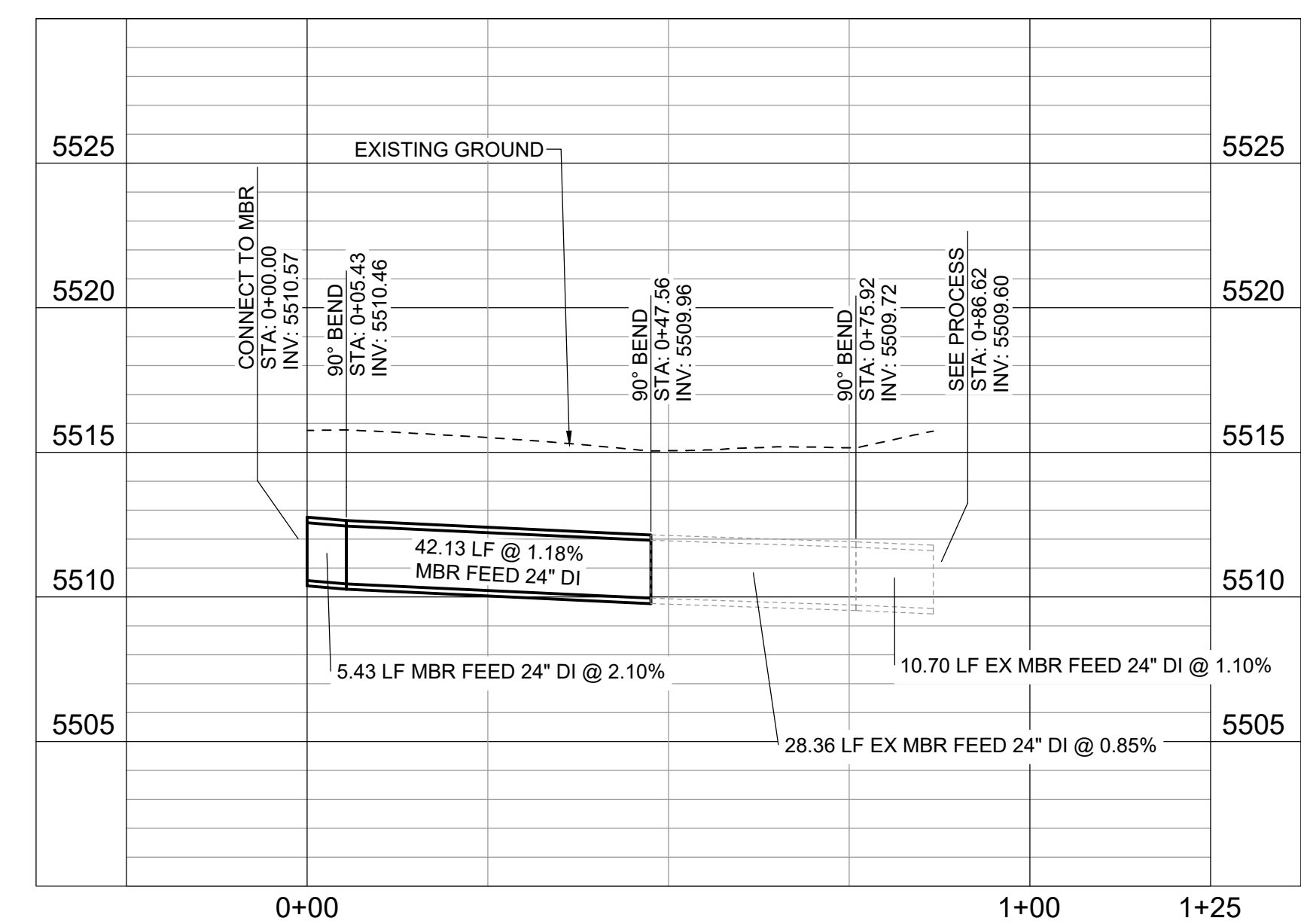
1 24" HDPE - PRIMARY EFFLUENT
 C-102 HOR: 1"=20' VERT: 1"=4'



2 18" DUCTILE IRON - RETURN ACTIVATED SLUDGE
 C-102 HOR: 1"=20' VERT: 1"=4'

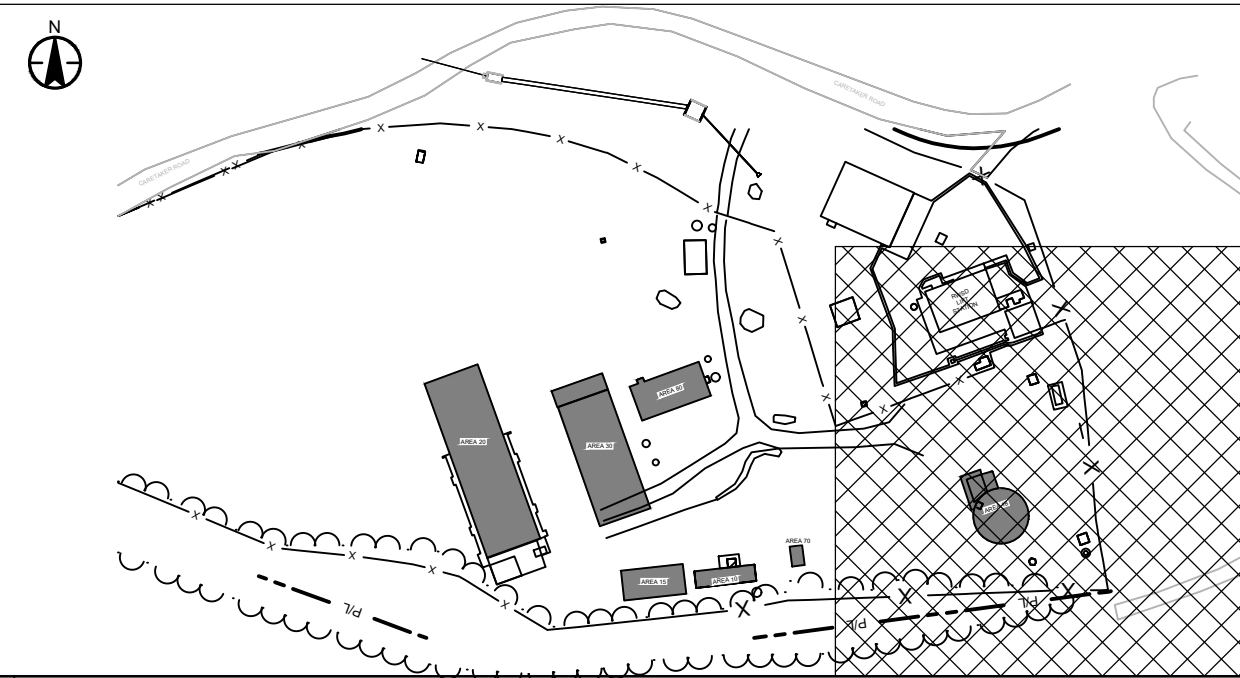


3 18" DUCTILE IRON - MEMBRANE FEED
 C-102 HOR: 1"=20' VERT: 1"=4'



4 24" DUCTILE IRON - MEMBRANE FEED
 C-102 HOR: 1"=20' VERT: 1"=4'

KEY PLAN

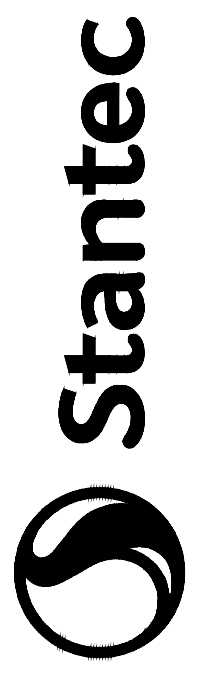


GENERAL SHEET NOTES

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- ALL UTILITIES SHALL BE PROTECTED IN PLACE UNLESS SHOWN OTHERWISE.
- SEE G-003 FOR PIPE AND MATERIAL SCHEDULE.

SHEET KEYNOTES

- REMOVE COVER AND ECCENTRIC CONE. ADD NEW PRECAST MANHOLE SECTION WITH 24" PENETRATION FOR BYPASS TO EQUALIZATION TANK.
- ROUTE 24" GRAVITY BYPASS TO OPENING IN ROOF. REFER TO 18D-301 FOR TANK CONNECTION DETAIL.
- AEROBIC DIGESTER TO BE RE-PURPOSED AS EQUALIZATION (EQ) TANK.
- REROUTE 6" TANK OVERFLOW TO LIFT STATION OVERFLOW MANHOLE.



Stantec
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Consultant

Revision

Permit/Seal

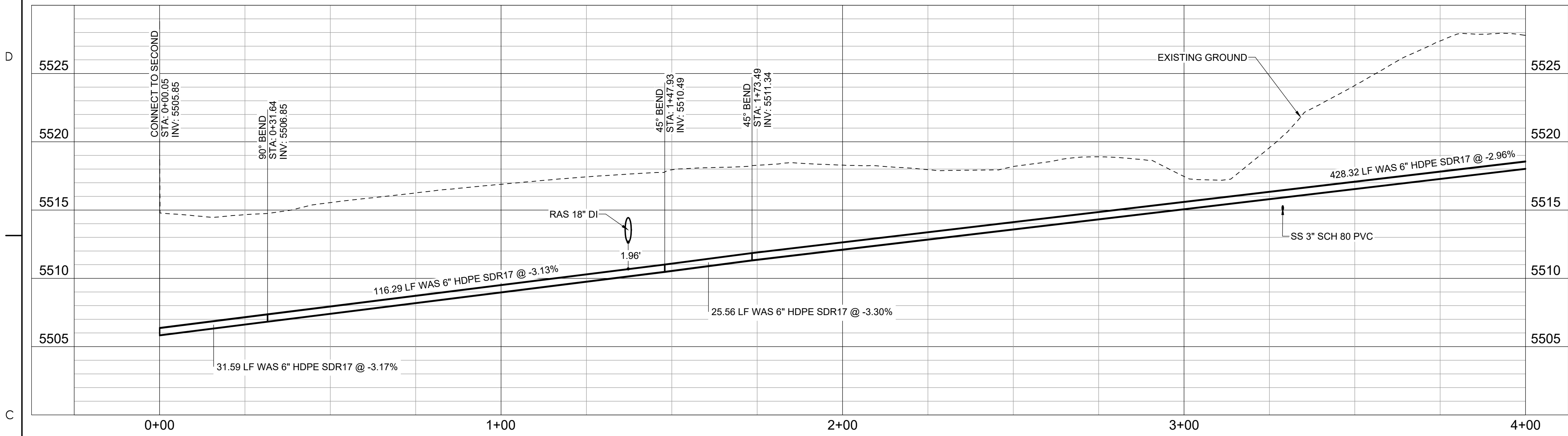
Client/Project
 DOMINION WATER
 SANITATION DISTRICT
 CHATHFIELD BASIN WRF
 REFURBISHMENT
 11310 CARETAKER RD,
 LITTLETON, CO 80125

Project No.: 181301899
 File Name: 01899-C-WP3-CU200-CU202-CU208
 Scale: SCALE

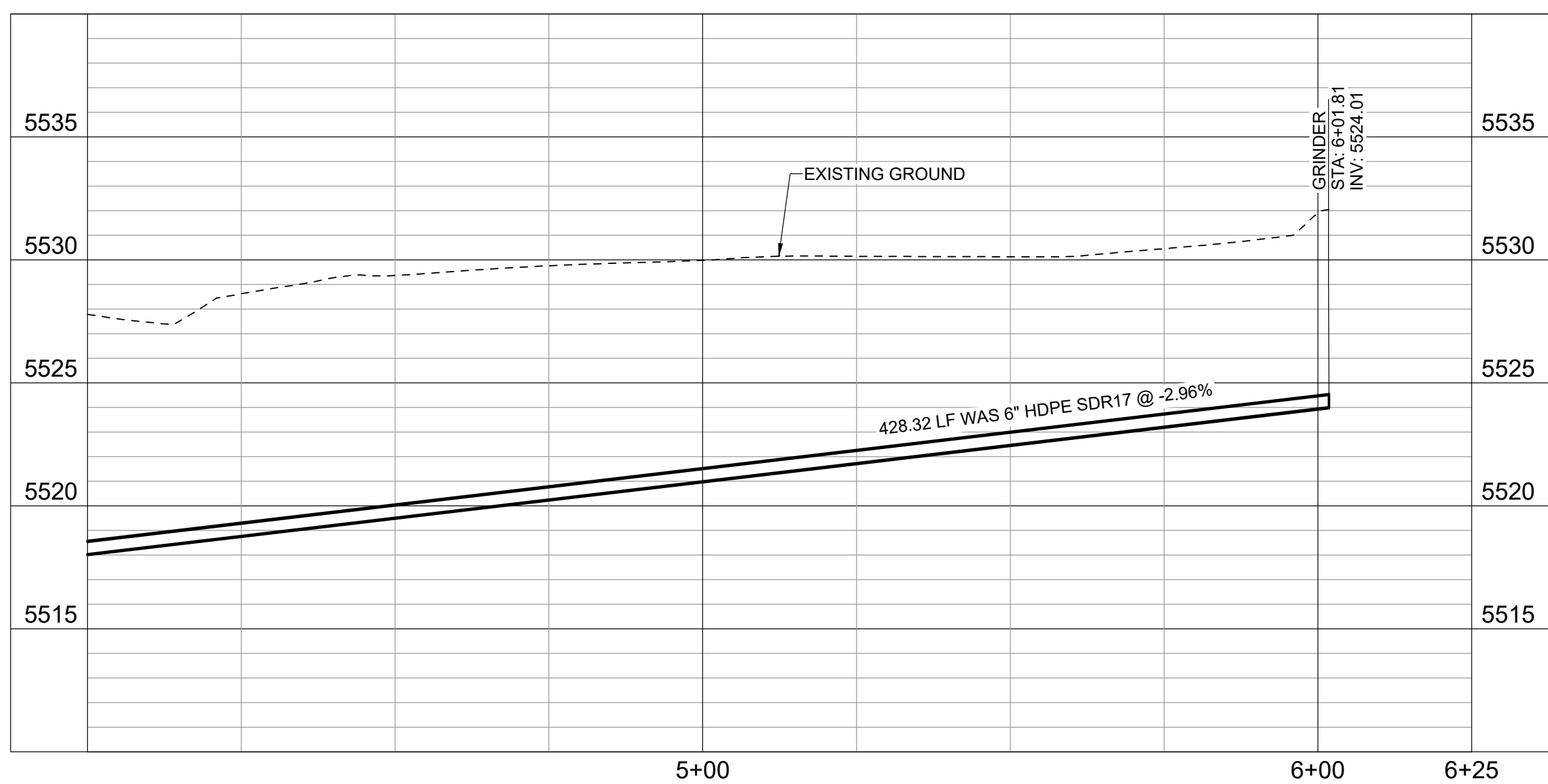
ASSISTANT DIRECTOR OF DEVELOPMENT REVIEW	DATE
THESE CONSTRUCTION DRAWINGS HAVE BEEN REVIEWED BY DOUGLAS COUNTY FOR LOCATION AND EXTENTS PERMIT ONLY.	DATE
ENGINEERING DIVISION ACCEPTANCE BLOCK	

Dwn. Dsgn. Chkd. YYYMMDD
 Title
 PIPING PROFILES 1-3
 Revision: 16
 Drawing No.
C-202

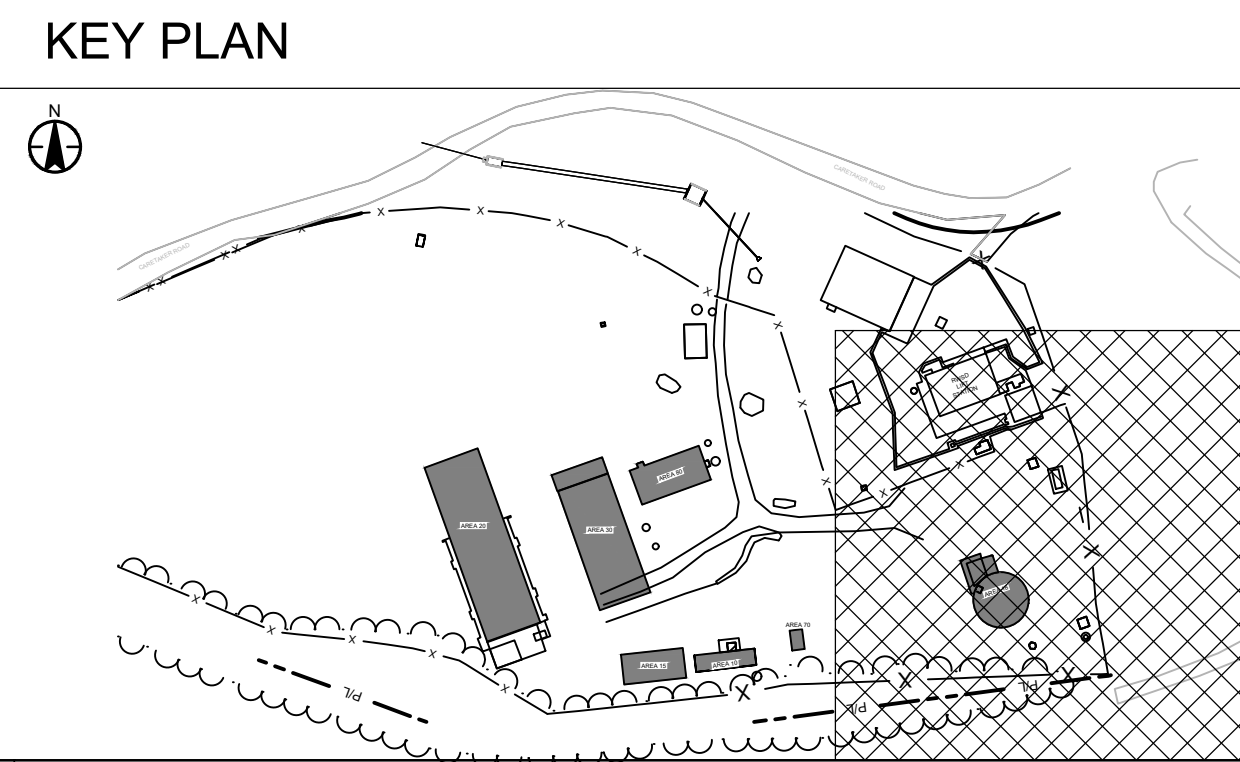
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5 6" HDPE SDR 17 - WASTE ACTIVATED SLUDGE
 C-102 HOR: 1"=20' VERT: 1"=4'



5 6" HDPE SDR 17 - WASTE ACTIVATED SLUDGE
 C-102 CONTINUED - SEE BELOW HOR: 1"=20' VERT: 1"=4'



GENERAL SHEET NOTES

1. PRIOR TO THE START OF CONSTRUCTION, THE CONTRACTOR SHALL LOCATE EXISTING UTILITIES IN AND AROUND THE AREAS OF NEW CONSTRUCTION. THE CONTRACTOR SHALL POTHOLE FOR EXISTING UTILITIES PRIOR TO SUBMITTAL OF SHOP DRAWINGS, FOR POINTS OF CONNECTION.
2. ALL UTILITIES SHALL BE PROTECTED IN PLACE UNLESS SHOWN OTHERWISE.
3. SEE G-003 FOR PIPE AND MATERIAL SCHEDULE.

SHEET KEYNOTES

- A. REMOVE COVER AND ECCENTRIC CONE. ADD NEW PRECAST MANHOLE SECTION WITH 24" PENETRATION FOR BYPASS TO EQUALIZATION TANK.
- B. ROUTE 24" GRAVITY BYPASS TO OPENING IN ROOF. REFER TO 18D-301 FOR TANK CONNECTION DETAIL.
- C. AEROBIC DIGESTER TO BE RE-PURPOSED AS EQUALIZATION (EQ) TANK.
- D. REROUTE 6" TANK OVERFLOW TO LIFT STATION OVERFLOW MANHOLE.

ASSISTANT DIRECTOR OF DEVELOPMENT REVIEW

DATE _____

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ENGINEERING DIVISION ACCEPTANCE BLOCK



Revision	By	App'd

Issued	By	App'd

Permit/Seal

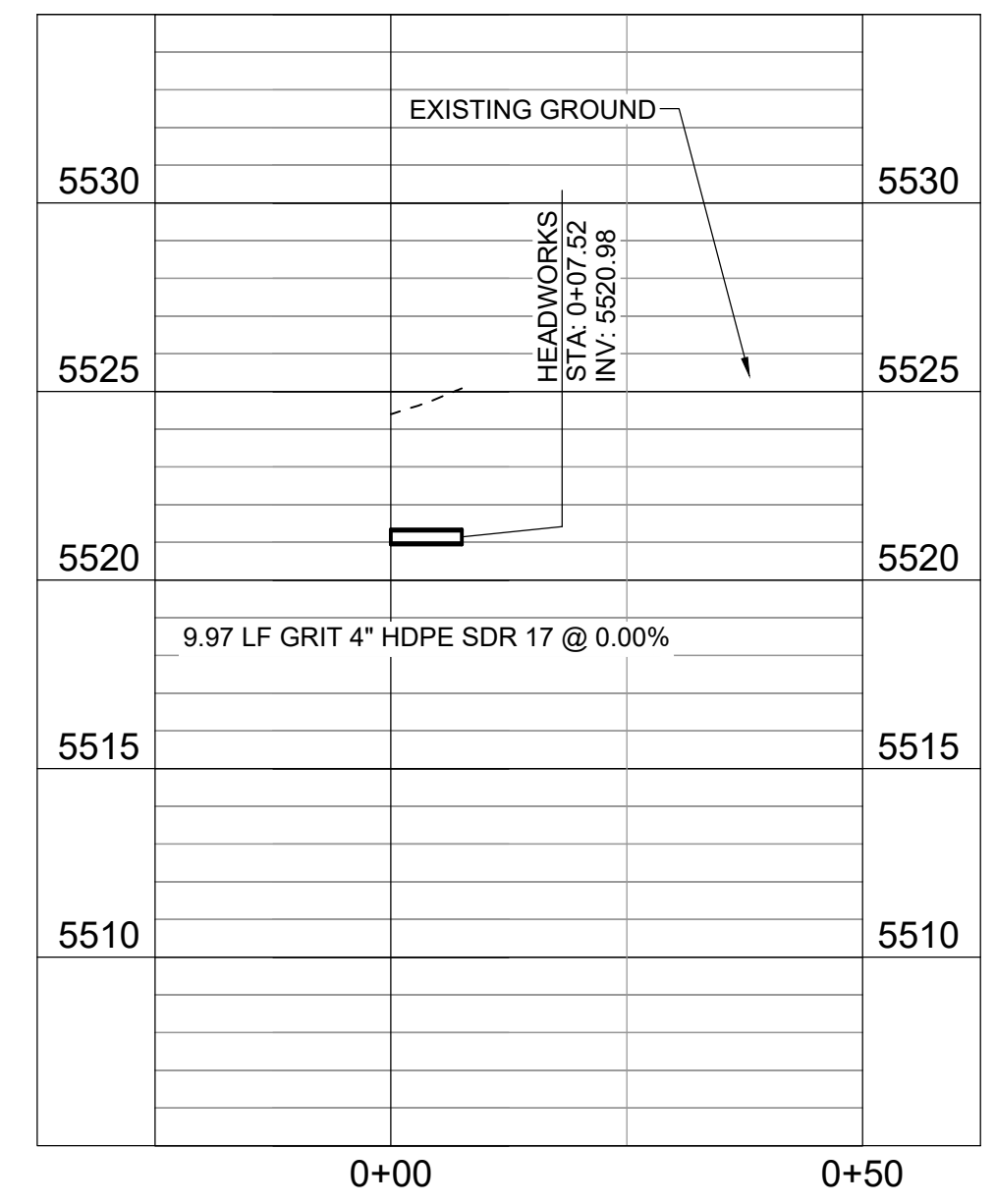
Client/Project
 DOMINION WATER
 SANITATION DISTRICT
 CHATFIELD BASIN WRF
 REFURBISHMENT
 11310 CARETAKER RD,
 LITTLETON, CO 80125

Project No.: 181301899
 File Name: 01899C-WP3-CU200-CU202-CU208
 Scale: SCALE
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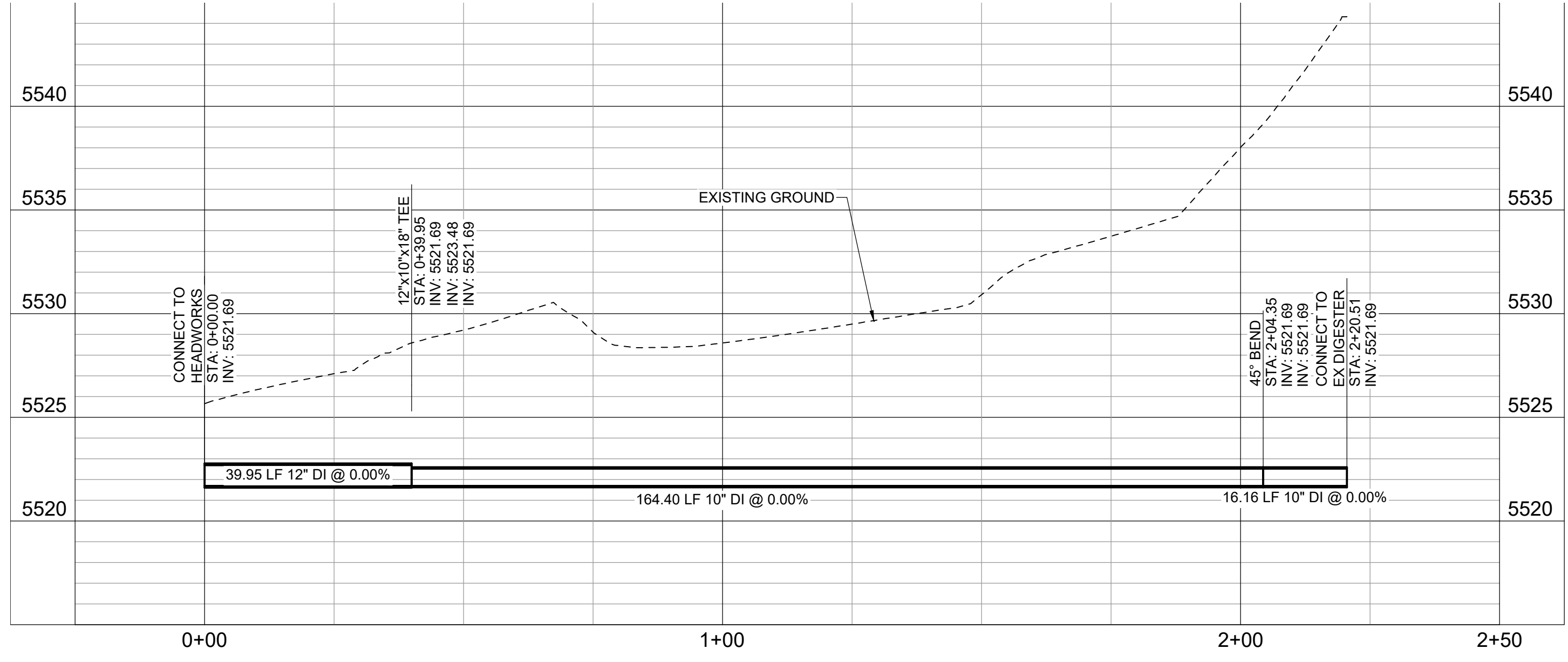
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 Revision: 17
 Drawing No.

C-203

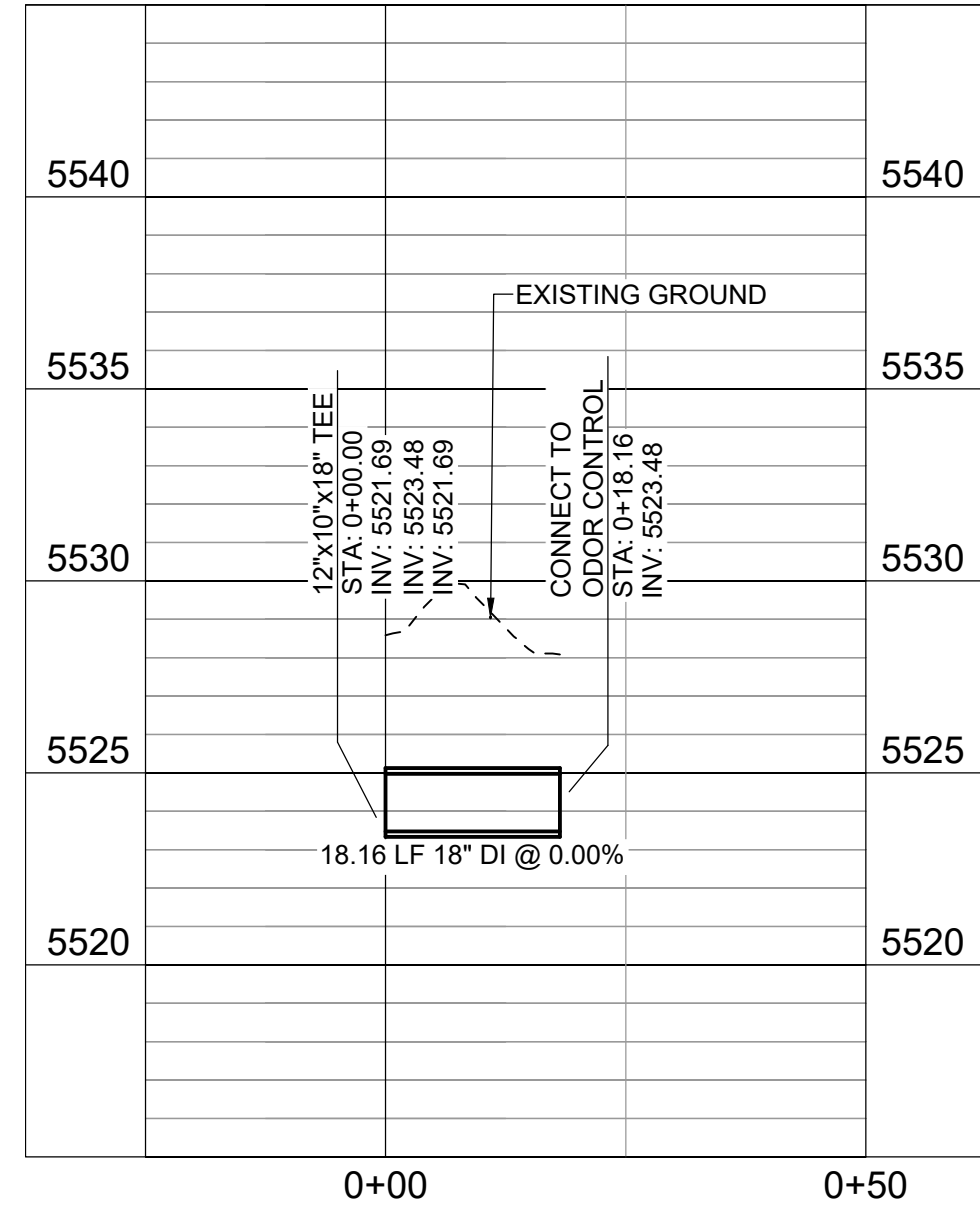
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8 4" HDPE SDR 17 - GRIT
C-102 HOR: 1"=20' VERT: 1"=4'



9 12" TO 10" FIBERGLASS REINFORCED PLASTIC (FR01) - FOUL AIR
C-102 HOR: 1"=20' VERT: 1"=4'



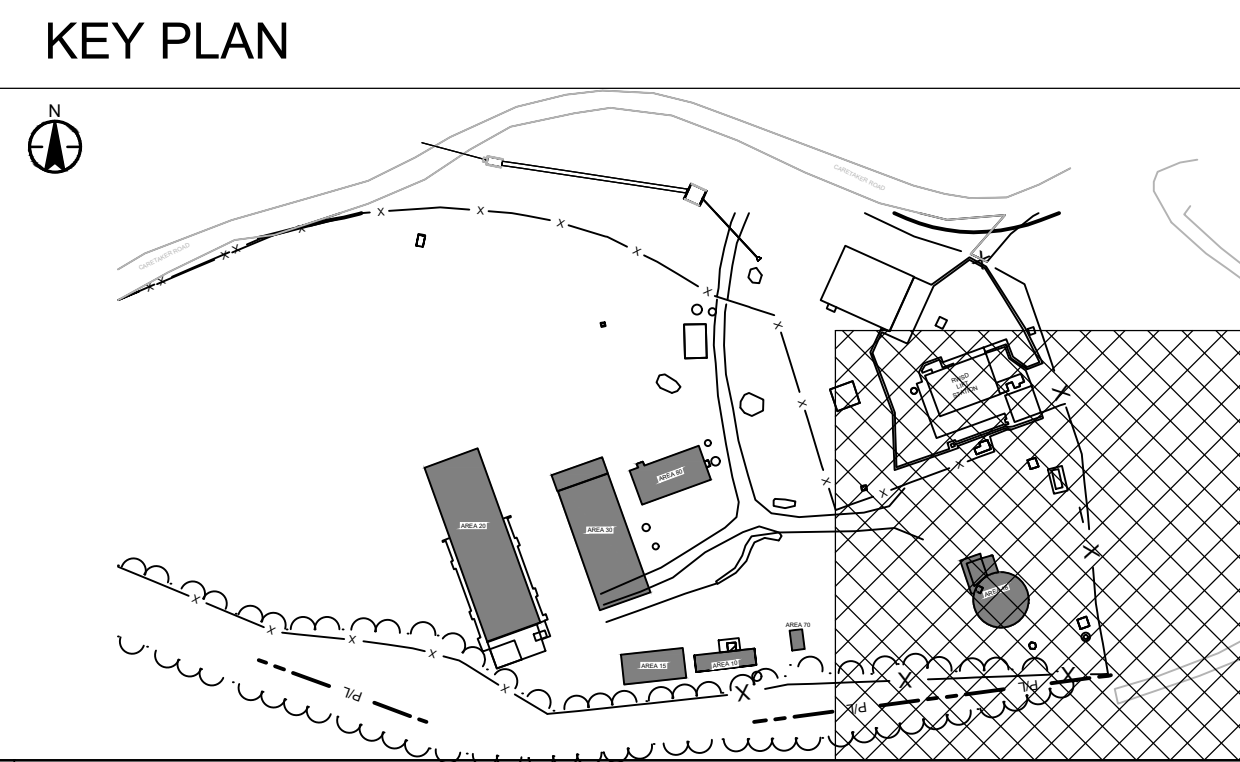
10 18" FIBERGLASS REINFORCED PLASTIC (FR01) - FOUL AIR
C-102 HOR: 1"=20' VERT: 1"=4'

ASSISTANT DIRECTOR OF DEVELOPMENT REVIEW

DATE

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ENGINEERING DIVISION ACCEPTANCE BLOCK



- GENERAL SHEET NOTES**
- PRIOR TO THE START OF CONSTRUCTION, THE CONTRACTOR SHALL LOCATE EXISTING UTILITIES IN AND AROUND THE AREAS OF NEW CONSTRUCTION. THE CONTRACTOR SHALL POT-HOLE FOR EXISTING UTILITIES PRIOR TO SUBMITTAL OF SHOP DRAWINGS, FOR POINTS OF CONNECTION.
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- SHEET KEYNOTES**
- REMOVE COVER AND ECCENTRIC CONE. ADD NEW PRECAST MANHOLE SECTION WITH 24" PENETRATION FOR BYPASS TO EQUALIZATION TANK.
 - ROUTE 24" GRAVITY BYPASS TO OPENING IN ROOF. REFER TO 18D-301 FOR TANK CONNECTION DETAIL.
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Consultant

Revision	By	App'd

Issue	By	App'd

Permit/Seal

Client/Project
DOMINION WATER
SANITATION DISTRICT

CHAITHLED BASIN WRF
REFURBISHMENT

11310 CARETAKER RD,
LITTLETON, CO 80125

Project No.: 181301899
File Name: 01899C-WP3-CU200-CU202-CU208

Scale: _____

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			YYYY.MM.DD

Title
PIPING PROFILES

Revision: 19
Drawing No.

C-205

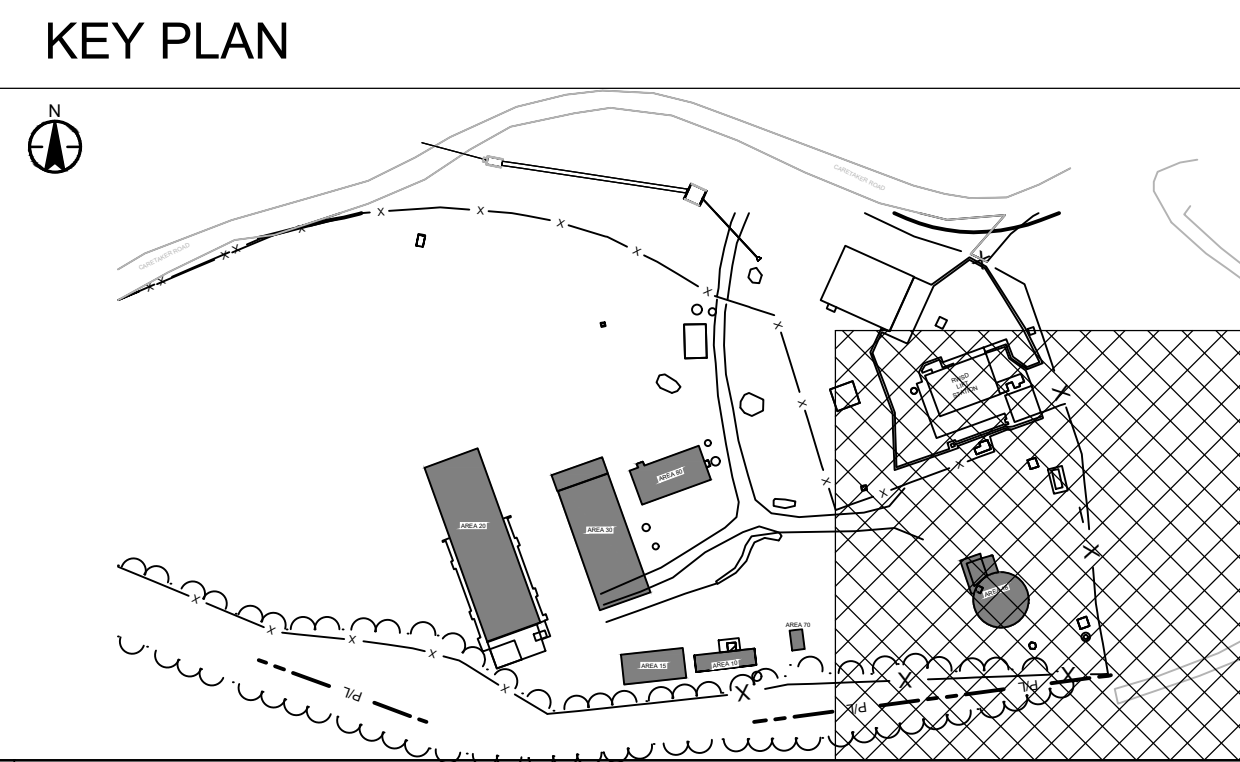
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ASSISTANT DIRECTOR OF DEVELOPMENT REVIEW

DATE

THESE CONSTRUCTION DRAWINGS HAVE BEEN REVIEWED BY DOUGLAS COUNTY FOR LOCATION AND EXTENTS PERMIT ONLY.

ENGINEERING DIVISION ACCEPTANCE BLOCK

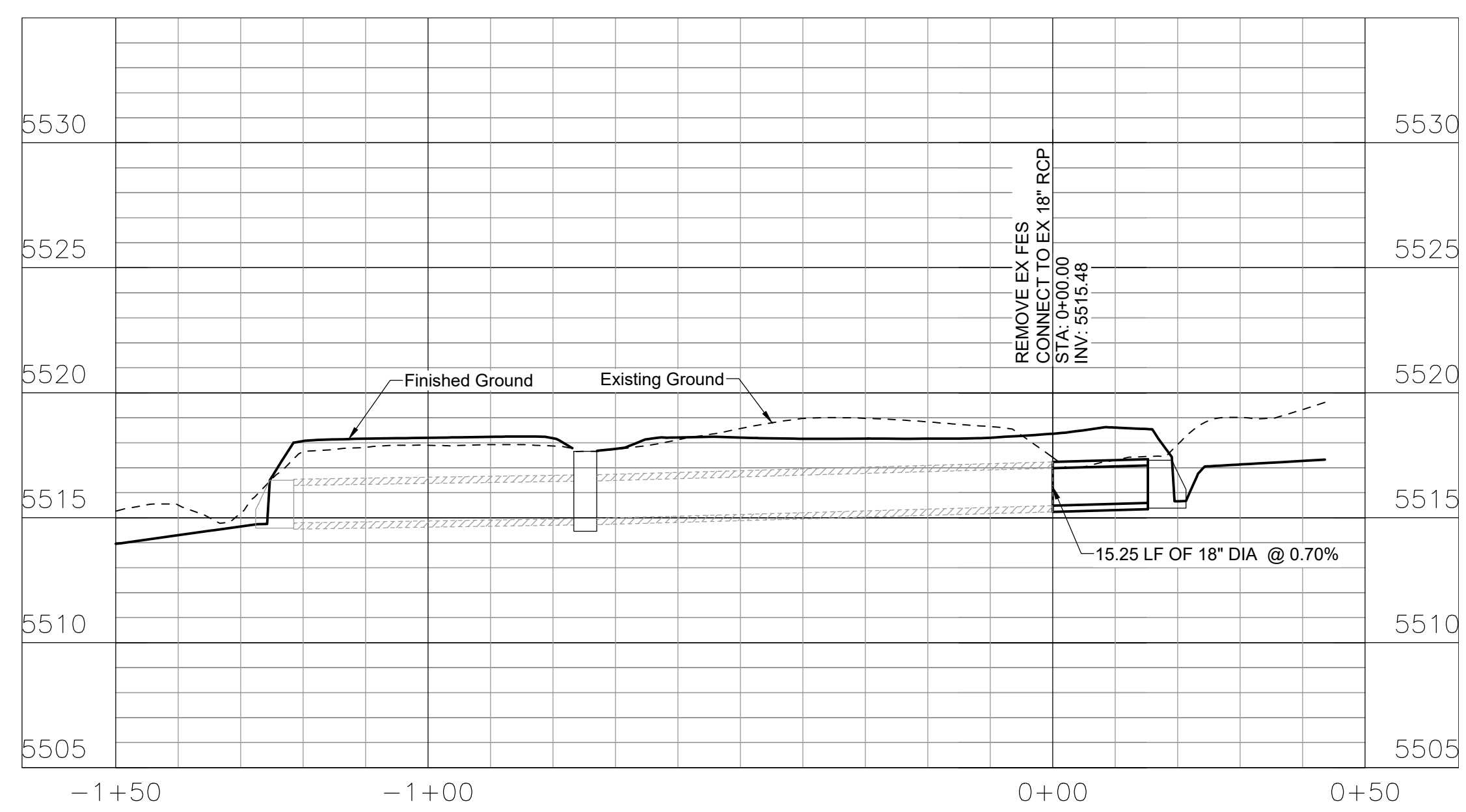


GENERAL SHEET NOTES

1. PRIOR TO THE START OF CONSTRUCTION, THE CONTRACTOR SHALL LOCATE EXISTING UTILITIES IN AND AROUND THE AREAS OF NEW CONSTRUCTION. THE CONTRACTOR SHALL POTHOLE FOR EXISTING UTILITIES PRIOR TO SUBMITTAL OF SHOP DRAWINGS, FOR POINTS OF CONNECTION.
2. ALL UTILITIES SHALL BE PROTECTED IN PLACE UNLESS SHOWN OTHERWISE.
3. SEE G-003 FOR PIPE AND MATERIAL SCHEDULE.

SHEET KEYNOTES

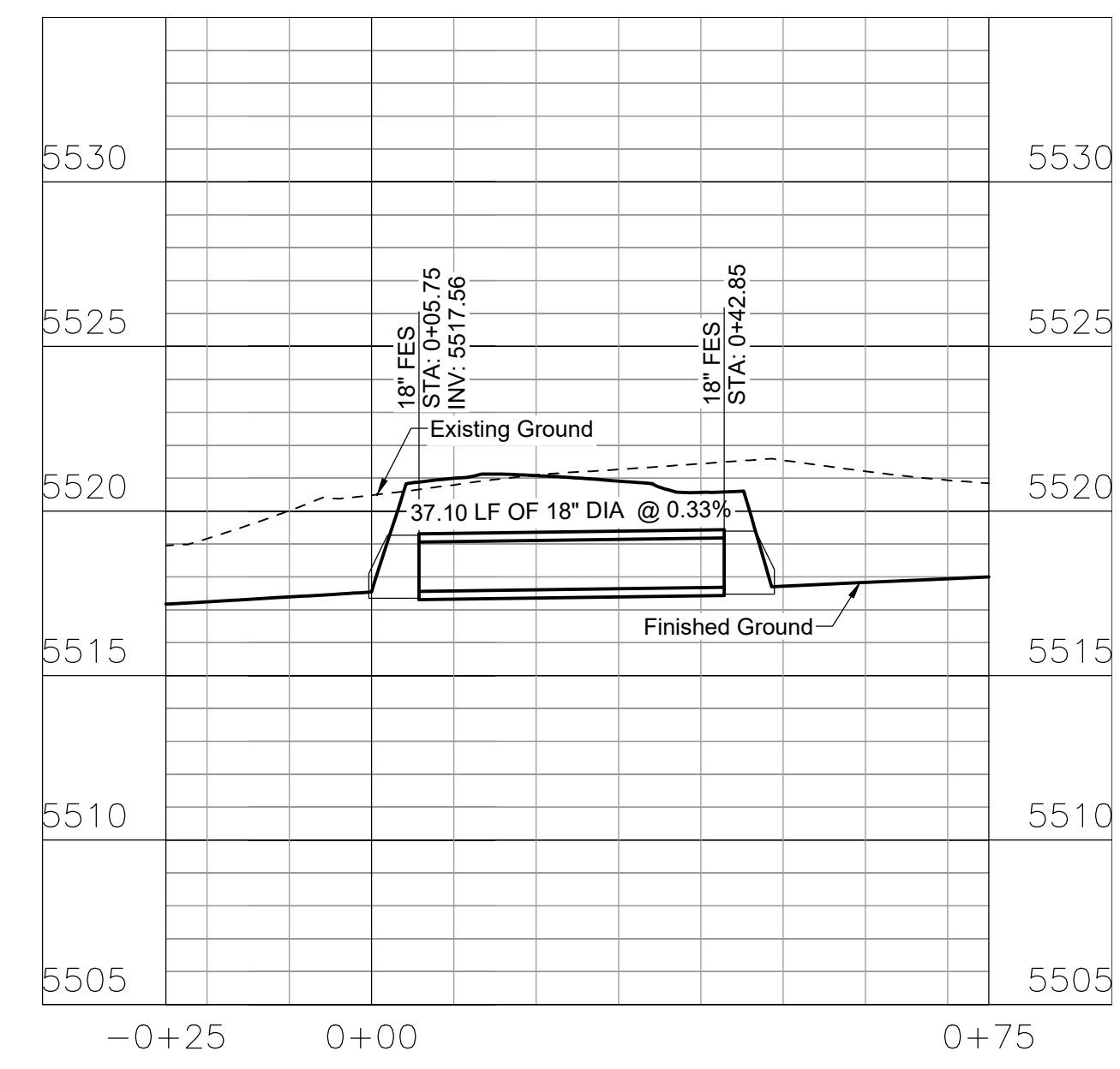
- A. REMOVE COVER AND ECCENTRIC CONE. ADD NEW PRECAST MANHOLE SECTION WITH 24" PENETRATION FOR BYPASS TO EQUALIZATION TANK.
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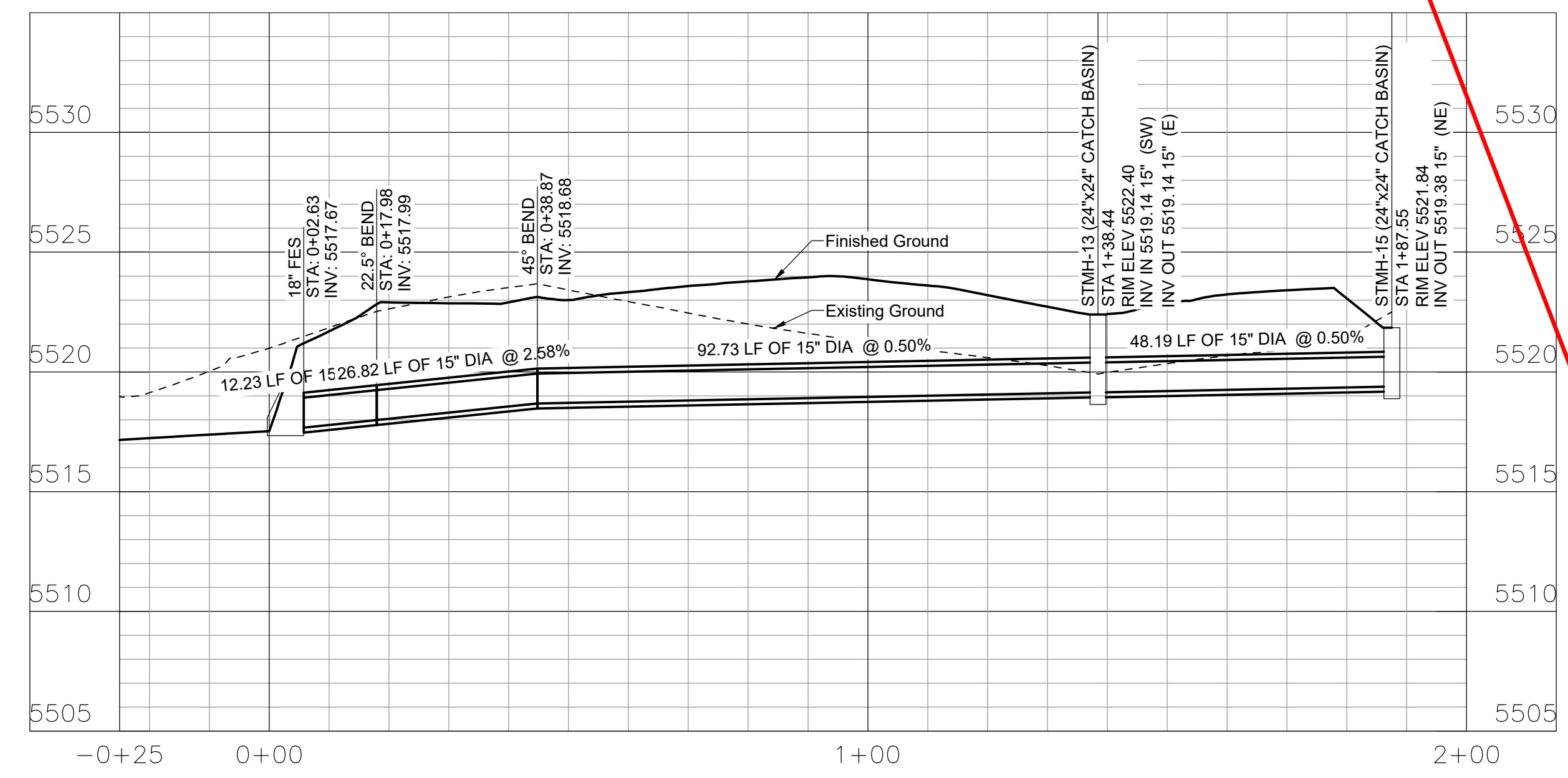
1 EX STORM 01 - STORM 01
C-103 HOR: 1"=20' VERT: 1"=4'

Relocate the Douglas County Acceptance Block to the lower right corner of the sheets (typical comment)

Specify the pipe material (typical comment)



2 STORM 02
C-103 HOR: 1"=20' VERT: 1"=4'



3 STORM 03
C-103 HOR: 1"=20' VERT: 1"=4'



Consultant

Revision	By	Date

Issued	By	Date

Permit/Seal

Client/Project
DOMINION WATER
SANITATION DISTRICT

CHATFIELD BASIN WRF
REFURBISHMENT

11310 CARETAKER RD,
LITTLETON, CO 80125

Project No.: 181301899

Scale: _____

Title
PIPING PROFILE

Revision: 21

Drawing No.

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1 2 3 4 5

D

C

B

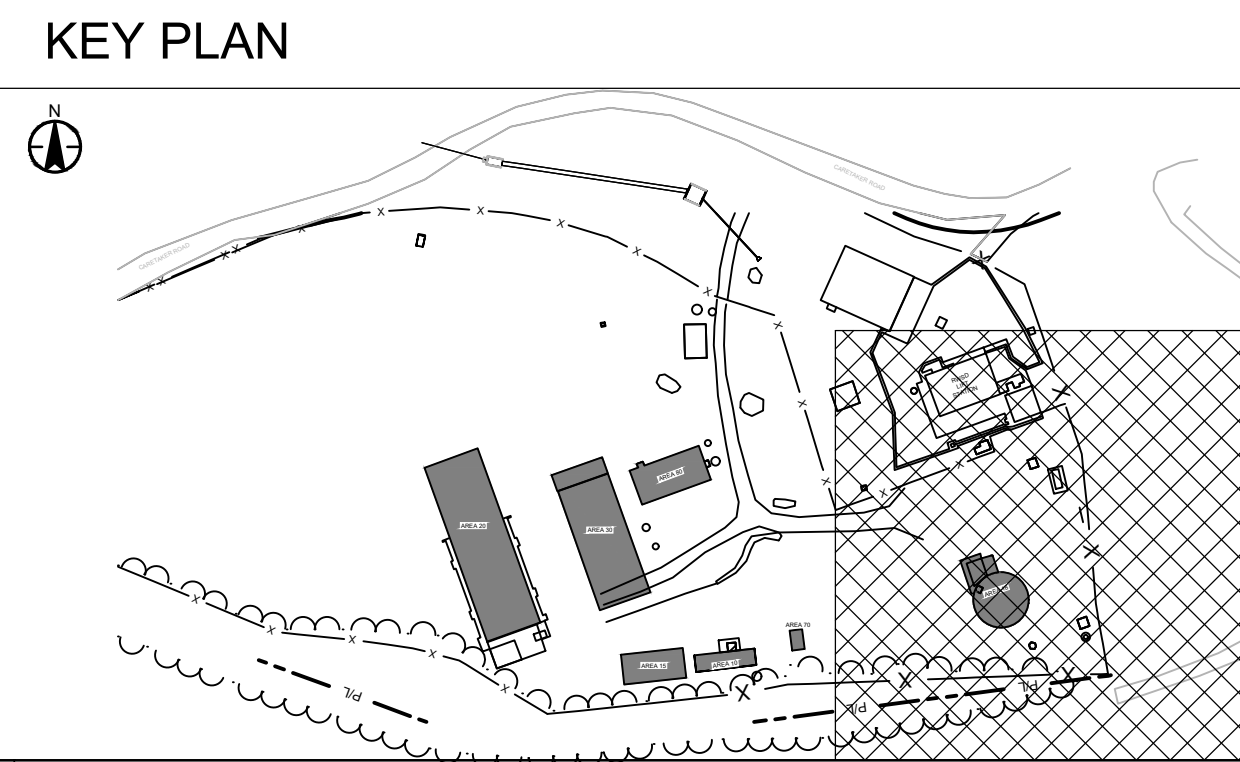
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ASSISTANT DIRECTOR OF DEVELOPMENT REVIEW

DATE

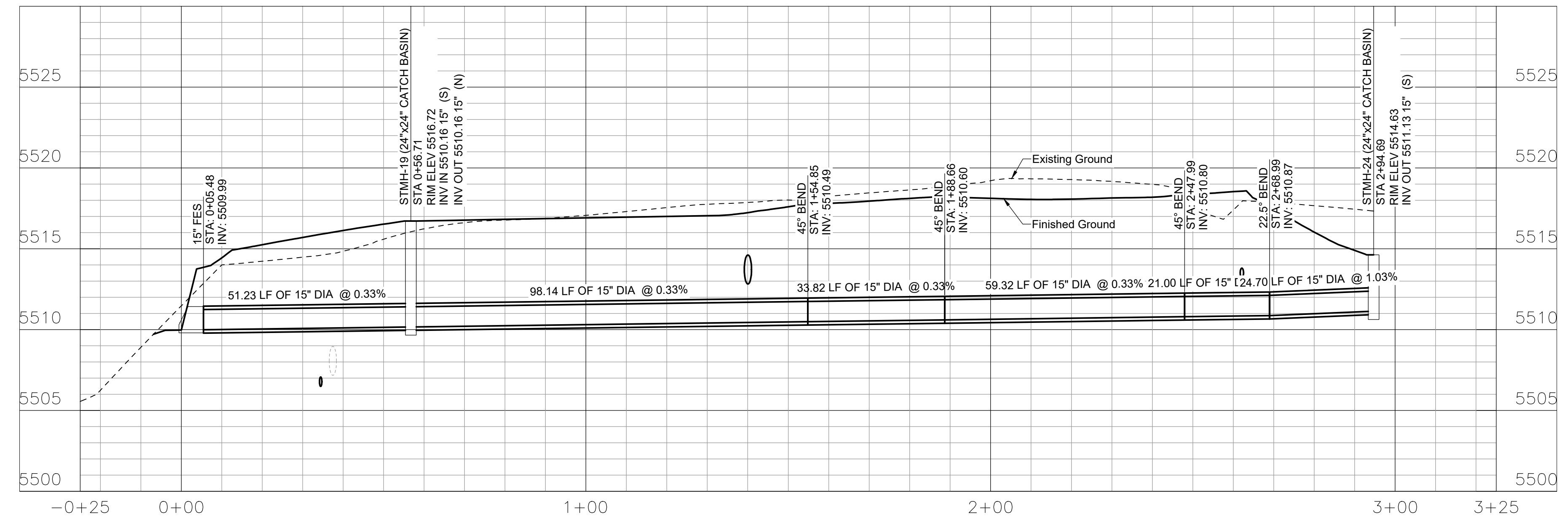
THESE CONSTRUCTION DRAWINGS HAVE BEEN REVIEWED BY DOUGLAS COUNTY FOR LOCATION AND EXTENTS PERMIT ONLY.

ENGINEERING DIVISION ACCEPTANCE BLOCK



- GENERAL SHEET NOTES**
- PRIOR TO THE START OF CONSTRUCTION, THE CONTRACTOR SHALL LOCATE EXISTING UTILITIES IN AND AROUND THE AREAS OF NEW CONSTRUCTION. THE CONTRACTOR SHALL POTHOLE FOR EXISTING UTILITIES PRIOR TO SUBMITTAL OF SHOP DRAWINGS, FOR POINTS OF CONNECTION.
 - ALL UTILITIES SHALL BE PROTECTED IN PLACE UNLESS SHOWN OTHERWISE.
 - SEE G-003 FOR PIPE AND MATERIAL SCHEDULE.

- SHEET KEYNOTES**
- REMOVE COVER AND ECCENTRIC CONE. ADD NEW PRECAST MANHOLE SECTION WITH 24" PENETRATION FOR BYPASS TO EQUALIZATION TANK.
 - ROUTE 24" GRAVITY BYPASS TO OPENING IN ROOF. REFER TO 18D-301 FOR TANK CONNECTION DETAIL.
 - AEROBIC DIGESTER TO BE RE-PURPOSED AS EQUALIZATION (EQ) TANK.
 - REROUTE 6" TANK OVERFLOW TO LIFT STATION OVERFLOW MANHOLE.



1 STORM 04
C-103 HOR: 1"=20' VERT: 1"=4'



Consultant

By: YYY.MM.DD

Appd: YYY.MM.DD

Revision

By: SSC

Appd: YYY.MM.DD

Issued

Permit/Seal

Client/Project
DOMINION WATER
SANITATION DISTRICT

CHAIFIELD BASIN WRF
REFURBISHMENT

11310 CARETAKER RD,
LITTLETON, CO 80125

Project No.: 181301899

File Name: 01899C-WP3-CU200-CU202-CU208

Scale: SCALE

Dwn: Dsgn: Chkd: YYY.MM.DD

Title
PIPING PROFILE

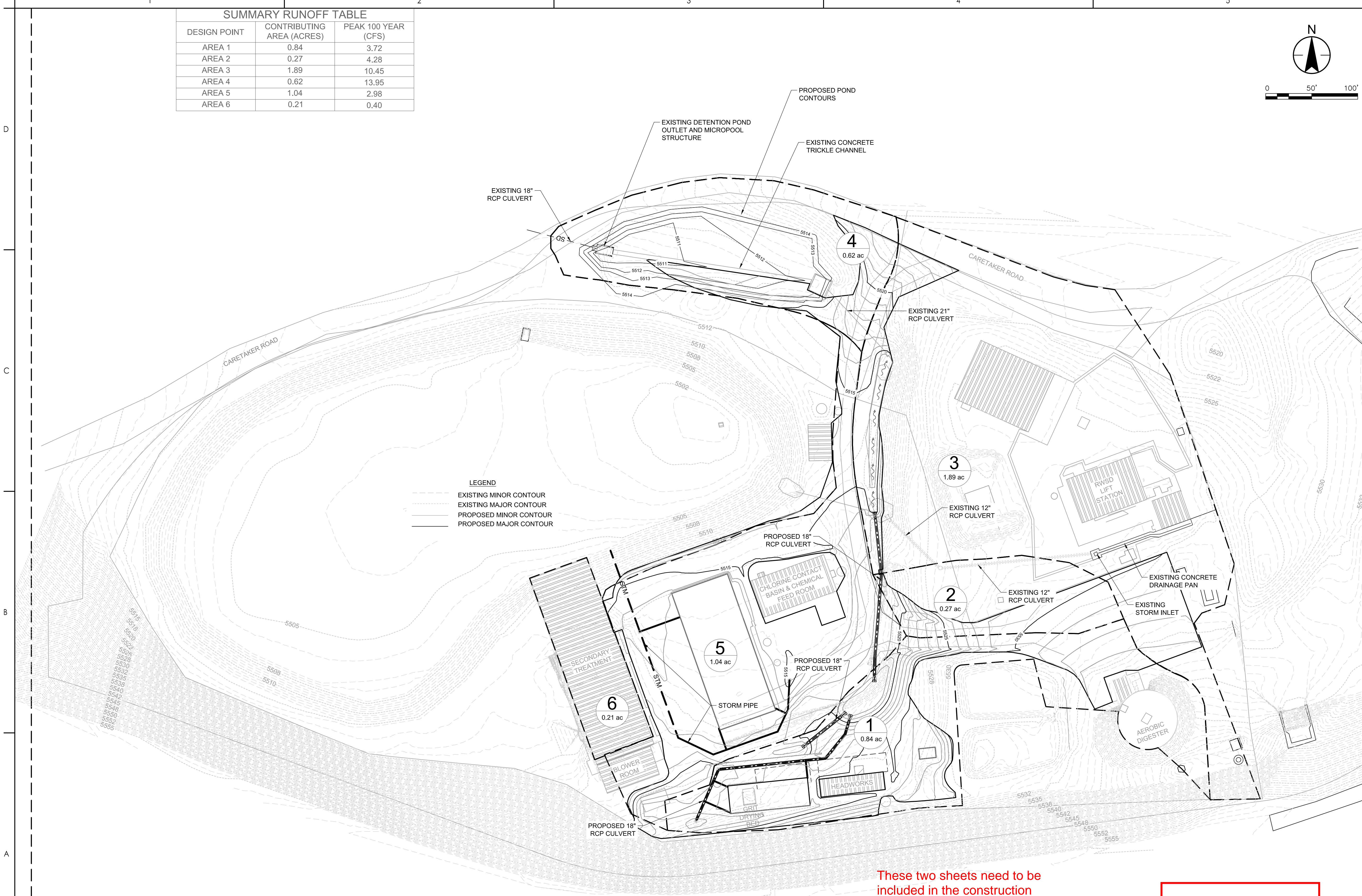
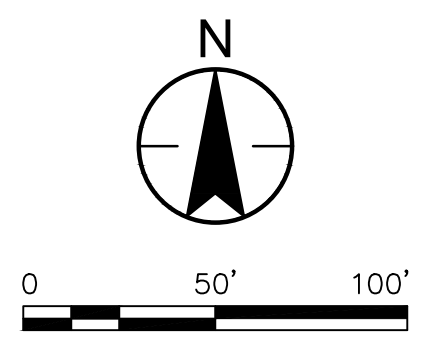
Revision: 22

Drawing No.

C-208

C:\Users\jstevan\OneDrive\Documents\Projects\181301899\01899C-WP3-CU200-CU202-CU208.dwg (181301899_01899C-WP3-CU200-CU202-CU208.dwg) 2025.08.20 2:51:14 PM

SUMMARY RUNOFF TABLE		
DESIGN POINT	CONTRIBUTING AREA (ACRES)	PEAK 100 YEAR (CFS)
AREA 1	0.84	3.72
AREA 2	0.27	4.28
AREA 3	1.89	10.45
AREA 4	0.62	13.95
AREA 5	1.04	2.98
AREA 6	0.21	0.40



LEGEND
 - - - - - EXISTING MINOR CONTOUR
 - - - - - EXISTING MAJOR CONTOUR
 - - - - - PROPOSED MINOR CONTOUR
 - - - - - PROPOSED MAJOR CONTOUR

These two sheets need to be included in the construction plan package

Add the Douglas County Acceptance Block to this sheet

Stantec
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 410 17th Street, Suite 1400
 Denver, CO 80202
 Tel: +1.303.295.1717
 www.stantec.com
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Issued	YYYY.MM.DD

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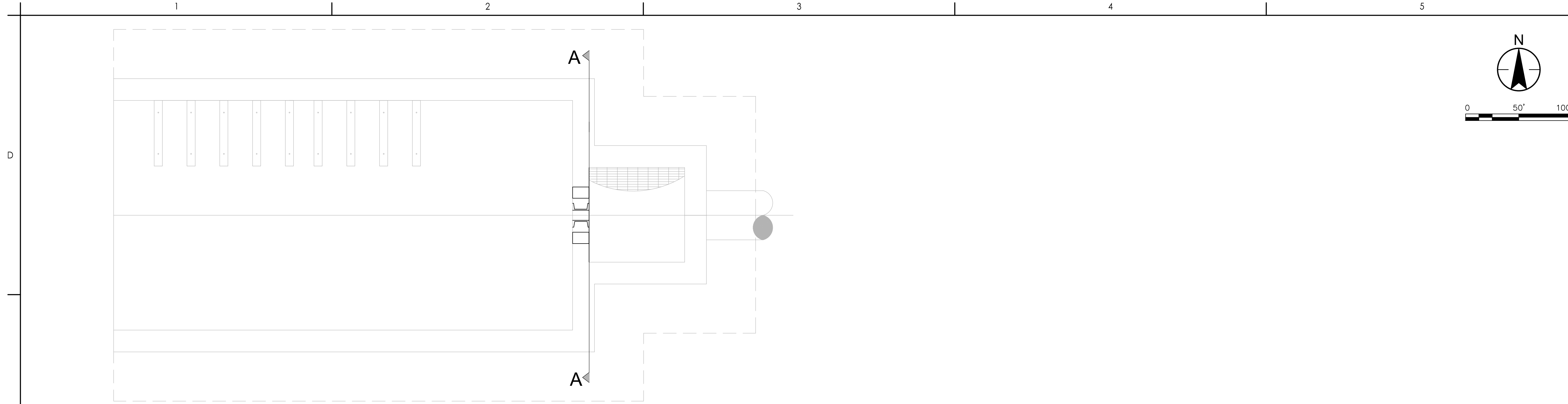
Client/Project
 DOMINION WATER SANITATION DISTRICT
 WATER RECLAMATION FACILITY
 CHATFIELD BASIN

Project No.:	181301899		
File Name:	01899C - DRAINAGE PLAN		
Scale:	SCALE		
EM Dwn.	EM Dsgn.	JC Chkd.	2025.08.18
YYYY.MM.DD	YYYY.MM.DD	YYYY.MM.DD	YYYY.MM.DD
Title DRAINAGE PLAN			
Revision:	Sheet:	1 of 1	
Drawing No.			

C10X

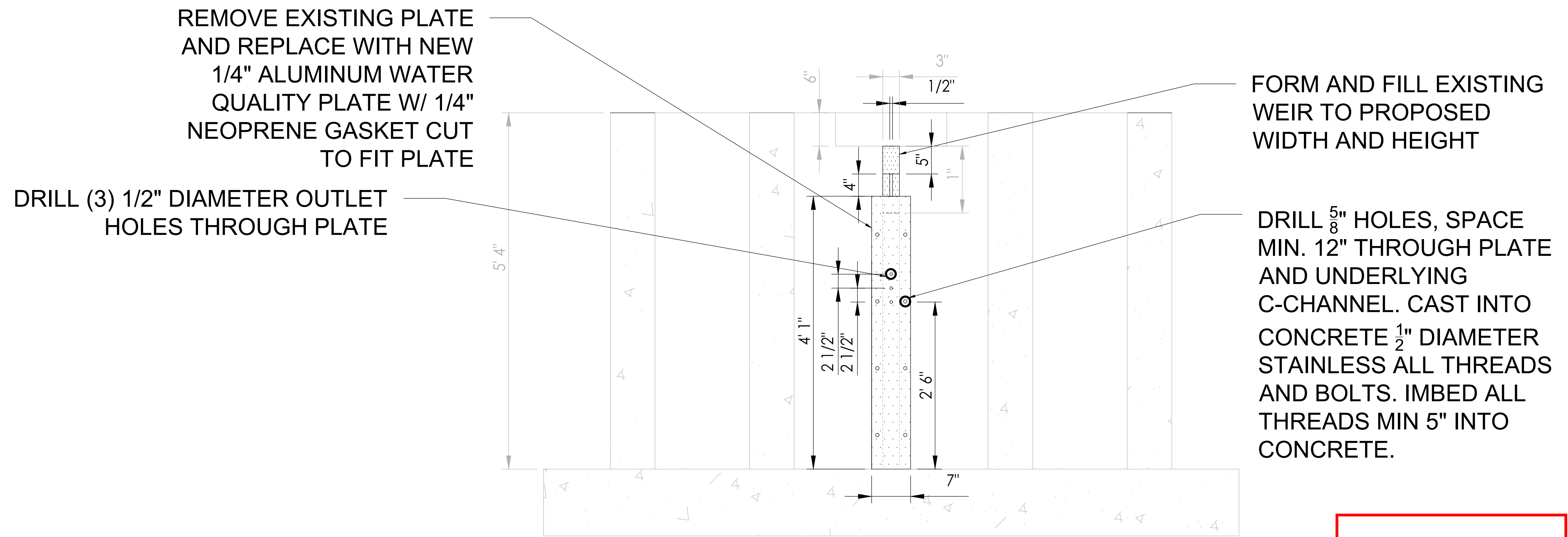
C:\work\projects\document\chatfield\drain\01899c - drainage plan 2025.08.18 11:32:44 AM

ORIGINAL SHEET - ANSI D



WATER QUALITY OUTLET AND MICROPOOL STRUCTURE PLAN VIEW
NTS

1
-



REMOVE EXISTING PLATE
AND REPLACE WITH NEW
1/4" ALUMINUM WATER
QUALITY PLATE W/ 1/4"
NEOPRENE GASKET CUT
TO FIT PLATE

DRILL (3) 1/2" DIAMETER OUTLET
HOLES THROUGH PLATE

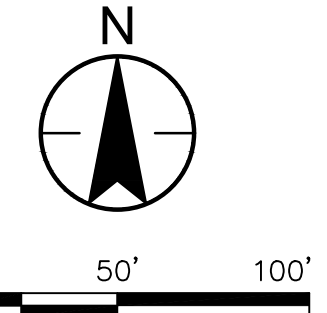
FORM AND FILL EXISTING
WEIR TO PROPOSED
WIDTH AND HEIGHT

DRILL $\frac{5}{8}$ " HOLES, SPACE
MIN. 12" THROUGH PLATE
AND UNDERLYING
C-CHANNEL. CAST INTO
CONCRETE $\frac{1}{2}$ " DIAMETER
STAINLESS ALL THREADS
AND BOLTS. IMBED ALL
THREADS MIN 5" INTO
CONCRETE.

Add the Douglas
County Acceptance
Block to this sheet

WATER QUALITY OUTLET AND MICROPOOL
STRUCTURE MODIFICATION DETAILS
NTS

A
-



Consultant

Revision	By	Appd

Issued	By	Appd

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Client/Project
DOMINION WATER SANITATION
DISTRICT
WATER RECLAMATION FACILITY
CHATFIELD BASIN

Project No.:

File Name: 01899C- DRAINAGE DETAILS

Scale: SCALE

##	Dwn.	Dsgn.	Chkd.	#####

Title
OUTLET STRUCTURE
MODIFICATION DETAILS

Revision: ___ Sheet: 1 of 1
Drawing No.

C10X

Trevor Bedford

From: Michael Gerstner <MGerstner@tstinfrastucture.com>
Sent: Friday, September 26, 2025 11:59 AM
To: Sarah Shepherd; Matthew Collitt; Mason Kiefer; Trevor Bedford
Subject: RE: Douglas County eReferral (Project Number LE2025-018) Is Ready For Review

Follow Up Flag: Follow up
Flag Status: Flagged

Trevor,

Please see the following comment on behalf of Louviers Water and Sanitation District:

"There is no current agreement in place for Louviers "the District" to be served and Dominion Water and Sanitation District (DWSD), and DWSD is not responding to requests for discussion. The statement that Louviers 'does not have reliable water or wastewater services' is neither pertinent to this application and is not accurate. The District would welcome a discussion with the applicant and Douglas County to correct this assertion."

Please let me know if you have any questions.

Thank you,



Michael Gerstner, PE
Principal
TST Infrastructure
5655 S Yosemite St, Suite 101
Greenwood Village, CO 80111
Tel: 303.799.5197
tstinfrastucture.com

From: Sarah Shepherd <sees@ccrider.us>
Sent: Friday, September 19, 2025 11:16 AM
To: Matthew Collitt <mcollitt@louvierswsd.org>; Mason Kiefer <mkiefer@tstinfrastucture.com>; Michael Gerstner <MGerstner@tstinfrastucture.com>
Subject: Fwd: Douglas County eReferral (Project Number LE2025-018) Is Ready For Review

----- Forwarded message -----

From: <tbedford@douglas.co.us>
Date: Fri, Sep 19, 2025 at 10:08 AM
Subject: Douglas County eReferral (Project Number LE2025-018) Is Ready For Review
To: <sees@ccrider.us>

There is an eReferral for your review. Please use the following link to log on to your account:

<https://apps.douglas.co.us/planning/projects/Login.aspx>

Project number LE2025-018, River Canyon Filing 2, 3rd Amendment, Lot 2A-1 - Location and Extent

Dominion Water & Sanitation District requests approval of a Location and Extent for the refurbishment and expansion of the Chatfield Basin Water Reclamation Facility.

This referral will close on Thursday, October 2, 2025.

If you have any questions, please contact me.

Sincerely,

Trevor Bedford, AICP
Planning Services
100 Third Street
Castle Rock, CO 80104
303-660-7460 (main)

--

Sarah E E Shepherd
District/Authority Manager



Chief Executive Officer
Littleton Mailing Address: P.O. Box 359, Littleton, CO 80160
Tele.: 303-482-1002
sees@ccrider.us