



Community Planning & Permitting

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Mailing Address: P.O. Box 471 • Boulder, Colorado 80306 • www.bouldercounty.gov

BOULDER COUNTY COMMISSIONERS PUBLIC HEARING

May 2, 2023 at 1:00 p.m.

All public hearings and meetings will be offered in a hybrid format where attendees can join **through Zoom** or **in-person** at the Boulder County Courthouse, 3rd Floor, 1325 Pearl Street, Boulder.

STAFF RECOMMENDATION

STAFF PLANNER: Abigail Scheuermann, Planner I

Docket LU-23-0003: Prince Lake No. 1 Dam Rehabilitation Project

Request: Limited Impact Special Use review to permit 22,532 cubic yards of non-foundational earthwork for the rehabilitation of Prince Lake No. 1 Dam along North 111th Street.
Location: 2595 North 111th Street, approximately 2,545 feet north of the intersection of North 111th street and Arapahoe Road, Section 26, Township 1N, Range 69W.
Zoning: Agricultural (A)
Applicant: Boulder County Parks and Open Space
Representative: Obadiah Broughton, Boulder County Parks and Open Space
Property Owner: Boulder County

STAFF'S RECOMMENDATION

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SUMMARY

The applicant requested a Limited Impact Special Use review for earthwork and grading in excess of 500 cubic yards, for work related to the rehabilitation of the Prince Lake No. 1 Dam on an approximately 24.34-acre parcel along North 111th Street. The project will include extensive earthwork to modernize existing dam facilities and improve the County's ability to control and operate the reservoir. The project will also address hazard concerns associated with the Prince Lake No. 1 Dam, as the Colorado Division of Water Resources' Dam Safety Branch has increased the dam hazard classification from low to significant. The proposed improvements will address overtopping and flood surge concerns and bring the dam into compliance with Colorado Dam Safety Regulations.

Claire Levy County Commissioner **Marta Loachamin** County Commissioner **Ashley Stolzmann** County Commissioner

This project is expected to aid in the County’s management of the reservoir and ensure continued utilization of the dam for the storage of agricultural irrigation water which supports farm production in Boulder County.

With the recommended conditions, staff finds the proposal can meet the Limited Impact Special Review Criteria in Article 4-601 of the Code and recommends conditional approval of docket **LU-23-0003: Prince Lake No. 1 Dam Rehabilitation Project**.

DISCUSSION

The subject parcels are located approximately 2,545 feet north of the intersection of North 111th street and Arapahoe Road, Section 26, Township 1N, Range 69W. The proposed project area is located at 2595 N. 111th Street (Parcel # 146526000019), a small section of the N. 111th Street right-of-way (ROW) between 2595 N. 111th Street and 0 Flatiron Circle (Parcel #146526227029), a section of the southern portion of 0 Flatiron Circle (Parcel #146526227029), and a section of the Southeast portion of 0 N. 111th Street (Parcel #146527000027). The work proposed in the N. 111th Street ROW and at 0 Flatiron Circle are within the jurisdiction of the Town of Erie. The applicants are required to coordinate with the Town of Erie for any permits and approvals necessary for the portion of the project to be completed within their jurisdiction. 2595 N. 111th Street (Parcel #146526000019) and 0 N. 111th Street (Parcel #146527000027) are located within unincorporated Boulder County. The parcels are owned by Boulder County and managed by the County’s Parks and Open Space department.



Figure 1. Parcel boundaries for 2595 N. 111th Street (Parcel # 146526000019) and 0 N. 111th Street (Parcel #146527000027).



Figure 2. Parcel boundaries for 0 Flatiron Circle (Parcel #146526227029). Yellow oval at southern end of parcel shows the approximate location of work to be completed on parcel and in ROW. Both the ROW and the parcel are in the jurisdiction of the Town of Erie.

The Prince Lake No. 1 Reservoir is used for storage of agricultural irrigation waters, which service nearby farms. It has been used for this purpose since its construction in 1879. The County purchased the property in 2000.

The subject parcels contain multiple resource areas identified in the Boulder County Comprehensive Plan. These resource areas include the following:

- Wetlands
- Riparian Areas
- Agricultural Land of National Importance

Boulder County Parks and Open Space is proposing to improve facilities at the reservoir and mitigate the potential for future hazards through the following improvements:

- Reinforcing and raising the dam height;
- Enlarging and armoring the emergency spillway;
- Improving and protecting the storm drainage flow-route from the emergency spillway across N. 111th Street;
- Raising and protecting the dam embankment with rip rap and a toe drain; and

- Modernizing and enlarging the outlet works.

Prince Lake No. 1 Dam Rehabilitation Project – Site Plan

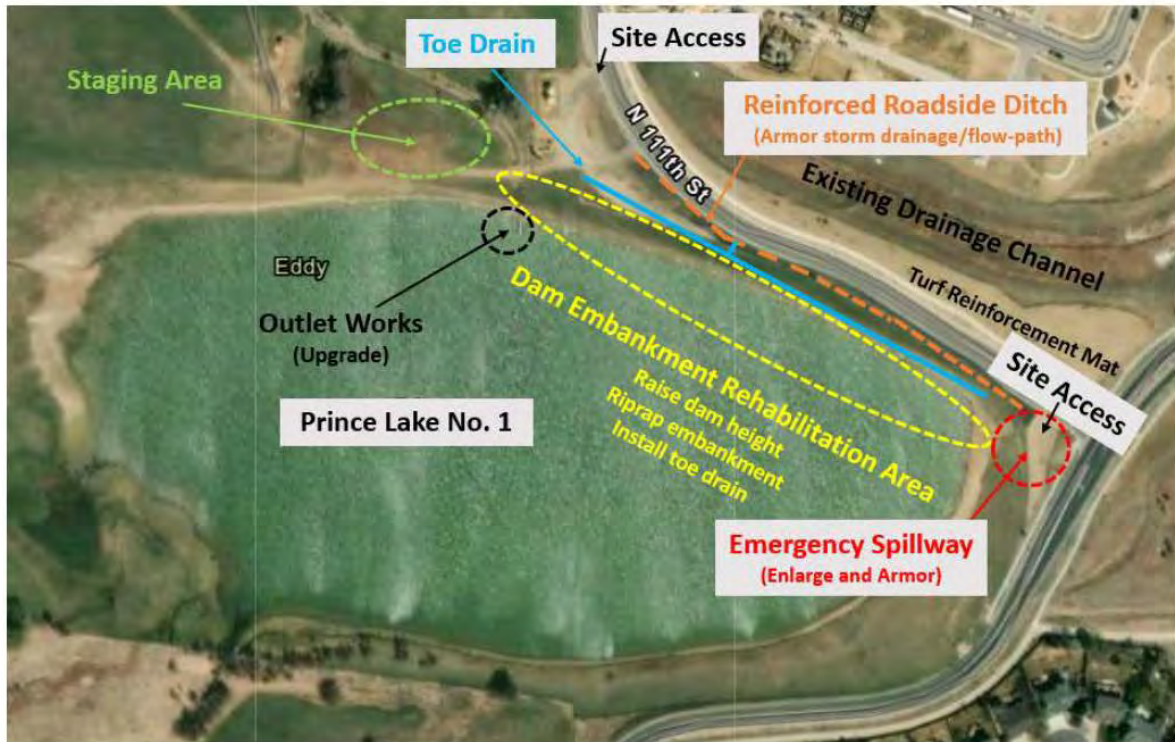


Figure 3. An aerial view of the parcel demonstrating the location of the various aspects of the project.

The project will involve approximately 22,532 cubic yards of total earthwork, including 6,000 cubic yards of cut and 16,532 cubic yards of fill. Cut material from the existing dam will be used on site for fill. The remaining 10,532 cubic yards of fill proposed will be transported in from off-site. A predominant aspect of the project is the raising of the dam embankment and enlarging of the existing spillway. The existing dam has a height of 11 feet, and the proposed earthwork will raise the dam height by approximately 1-foot. Rip rap will be placed along the upstream face of the dam. The existing spillway will also be enlarged to have an approximately 90-foot bottom width. This area will be lined with 18-inch-thick rip rap with 9-inch-thick riprap bedding placed underneath.

The proposal also includes the replacement of existing outlet works. The new outlet pipe will be installed, and embankment material will be replaced and compacted. The new outlet piping will be 18-inches in diameter and encased in reinforced concrete material, which will lie atop a 4.5-foot-wide concrete mud map. An existing inlet structure will be upgraded as well and will control the proposed outlet works upstream utilizing an 18-inch inclined slide gate.

Installation of a toe drain is included in the proposal to collect and filter seepage towards the toe of the dam. The toe drain will collect and discharge this seepage towards the Town of Erie’s storm sewer and to the existing drainage channel to the east of N. 111th Street.

The staging area for the project is proposed to the northwest of the dam and the existing outlet, as identified in the application materials. This area is located near the site access point off of N. 111th Street and to the west of existing oil and gas facilities. If necessary, an area to the east of the emergency spillway may also be utilized as a staging area. Preliminary erosion control methods are identified in the application materials and will be finalized on plans provided at permitting. All

disturbed areas will be revegetated with native species.

Construction is anticipated to have a duration of approximately 8 months. The applicants have noted that ideally construction will occur during fall and winter months when irrigation water is not needed for agricultural production.

The applicant is coordinating with the Town of Erie to obtain all necessary permits and clearances for construction proposed along the N. 111th Street ROW and 0 Flatiron Circle (Parcel #146526227029).

REFERRAL RESPONSES

This application was referred to the typical agencies, departments, and adjacent property owners. All responses received are attached and summarized below.

Boulder County Development Review Team – Access & Engineering: This team reviewed the proposal and responded that legal access to the subject property had been demonstrated via N. 111th Street, a paved Town of Erie owned and maintained right-of-way (ROW). The Team noted that an additional construction access is proposed at Flatiron Meadows Boulevard and recommended that this access be located as far south as possible to reduce potential for traffic impacts. The Team noted that all necessary approvals and permits from the Town of Erie for construction access and for improvements proposed along N. 111th street must be demonstrated at permitting. The Access & Engineering team also noted that off-site hauling hours shall be limited to between 8:30 AM and 4:00 PM to limit traffic impacts. The applicants must also provide information on hauling trips, routes and vehicle types used for the project. They included that an Oversized/Overweight permit from the Boulder County Public Works Department may be necessary for the use of oversized vehicles on the County Transportation System. Lastly, the Team noted that a Boulder County Stormwater Quality Permit (SWQP) is required for the work occurring on the reservoir site. This permit will be submitted with any building or grading permit applications.

Boulder County Parks & Open Space – Natural Resource Planner: The Natural Resource Planner reviewed the application materials and noted that no significant natural resource impacts are anticipated as a result of this proposal, as the area of construction has been previously disturbed and there are limited resources of concern in the area of proposed construction. They had some additional questions for the applicants regarding specifics of proposed materials to be used in construction and regarding where proposed fill will come from. They request that the questions and clarifications included in the referral be addressed by the applicant. They also noted that a revegetation plan which includes native grass species must be used in areas of disturbance. They recommended the applicant remove Russian-olive trees along the south shore of the reservoir. Lastly, they included that all equipment transported to the site must be cleaned to remove soil and attendant weed seeds. Equipment that may come into contact with reservoir water must be cleaned to remove aquatic nuisance species in accordance with State of Colorado ANS regulations. This equipment must be cleaned with either steam (heat) or chemical cleaning, as opposed to more standard power washing.

Boulder County Conservation Easement Program: Staff from the Boulder County Conservation Easement team reviewed the application materials and stated that the proposal should not impact the conservation values of the Horst Estate NUPUD Conservation Easement or the Nervig Conservation Easement.

State of Colorado Division of Water Resources: This state agency reviewed the application materials and provided comment. The division noted that proposed grading activities that result in the diversion, collection, or storage of stormwater would require a plan for augmentation. Additionally, any dewatering activities would require a well permit or notice of intent through the Division of Water Resources office. They recommend that the applicants consult with the Colorado Division of

Water Resources District 6 Water Commissioner prior to commencement of construction activities to ensure compliance with their requirements.

Xcel Energy: This agency reviewed the application materials and stated that the Public Service Company of Colorado owns and operates existing underground electric distribution facilities in the area of proposed reinforcement to the roadside ditch. They noted that proper clearance must be maintained to ensure ground cover in this area is not modified from original depths. They recommend that the applicant contact Colorado 811 before commencing excavation. Lastly, they recommend the applicants use caution and hand digging when excavating within 18-inches of each side of marked utility facilities.

Adjacent Property Owners: Notices were sent to all property owners within a 1,500-foot radius of the subject parcels. Staff received responses from 5 members of the public. One (1) requested additional information on the scope of work for the project and inquired about plans for revegetation to any areas of disturbance. One (1) requested information on the proposed length of the project, how construction will impact irrigation needs, and potential for an expedited construction process. They also requested additional information from the applicant on plans to mitigate harm to a Bald Eagle nest in the N. 111th Street area, as well as plans to mitigate impacts to traffic along N. 111th Street. One (1) noted that the storage of irrigation water in the reservoir is utilized by neighboring farm properties and that two private parties have irrigation water storage in Prince Lake No. 1. Two (2) requested additional clarification on the scope of the project and where to find information on participation in the public hearing.

Agencies that responded with no conflict: Boulder County Building Safety and Inspection Services Team

Agencies that did not submit a response: Boulder County Long Range Planning; Assessor; County Attorney; Office of Sustainability, Climate Action and Resilience; Boulder County Public Health – Environmental Health and Water Quality; Sheriff, Treasurer; City of Lafayette Community Development Department Planning Division; Town of Erie Community Development Department Planning Division; Louisville Planning Department; Boulder Valley and Longmont Conservation Districts; Colorado Department of Public Health & Environment; US Army Corps of Engineers Denver Regulatory Office; Mountain View Fire Protection District

LIMITED IMPACT SPECIAL REVIEW CRITERIA

The Community Planning & Permitting staff has reviewed the proposal for earthwork and grading in excess of 500 cubic yards pursuant to the Limited Impact Special Use Review criteria per Section 4-601.A of the Code, and finds the following:

- (1) ***Complies with the minimum zoning requirements of the zoning district in which the use is to be established, and will also comply with all other applicable requirements;***

The subject parcels are located in the Agricultural zoning district.

The project is being reviewed under the Limited Impact Special Use Review criteria because the proposed project includes earthwork and grading in excess of 500 cubic yards. A grading permit/building permit will be required.

Therefore, as conditioned, staff finds this criterion can be met.

- (2) ***Will be compatible with the surrounding area. In determining compatibility, the Board should consider the location of structures and other improvements on the site; the size, height and massing of the structures; the number and arrangement of structures; the***

design of structures and other site features; the proposed removal or addition of vegetation; the extent of site disturbance, including, but not limited to, any grading and changes to natural topography; and the nature and intensity of the activities that will take place on the site. In determining the surrounding area, the Board should consider the unique location and environment of the proposed use; assess the relevant area that the use is expected to impact; and take note of important features in the area including, but not limited to, scenic vistas, historic townsites and rural communities, mountainous terrain, agricultural lands and activities, sensitive environmental areas, and the characteristics of nearby development and neighborhoods;

For the purposes of this Limited Impact Special Use Review, staff considered the applicable neighborhood to be the properties within 1,500 feet of the subject parcels. The project area itself is adjacent to protected agricultural and open space land to the west and is near residential development on the northern and eastern side of N. 111th Street. The areas of residential development are located within the jurisdiction of the Town of Erie.

Staff does not anticipate the proposed project to result in any impacts which would be out of character with the defined neighborhood. While the proposed project does involve significant amounts of earthwork and grading on-site, which will result in changes to the existing topography and vegetation, these changes are anticipated to address hazard concerns related to dam overtopping and aid in the County's ability to control reservoir waters for storage of agricultural irrigation water. The proposed project will result in some short-term impacts to the area, though it has been determined that these are outweighed by the long-term benefits. Additionally, no new structures are proposed as part of this project.

Therefore, staff finds this criterion is met.

(3) *Will be in accordance with the Boulder County Comprehensive Plan;*

The Boulder County Comprehensive Plan and other resource inventories identified the following designations on the subject parcels: Agricultural Lands of National Importance, as well as Wetland and Riparian Areas. Staff does not anticipate significant impacts to these designated areas as a result of the proposal. Some adjacent agricultural lands to the parcel are designated as significant agricultural lands, however the Natural Resource Planner noted in their referral response dated February 24th, 2023 that these areas have been altered due to stormwater drainage systems or are to remain in production and will not be altered as a result of this proposal. Wetland and Riparian areas are also identified on the parcel and in surrounding areas, however some of these areas have already been developed. The riparian areas surrounding the reservoir shorelines are to remain and are likely to become better established with more regulated control of reservoir waters.

Staff finds that the proposal will support the Comprehensive Plan as it will modernize and secure Dam facilities. This will ensure continued use of the Prince Lake Reservoir as storage for agricultural irrigation water, supporting agricultural production in the County.

Therefore, staff finds this criterion is met.

(4) *Will not result in an over-intensive use of land or excessive depletion of natural resources. In evaluating the intensity of the use, the Board should consider the extent of the proposed development in relation to parcel size and the natural landscape/topography; the area of impermeable surface; the amount of blasting, grading or other alteration of the natural topography; the elimination or disruption of agricultural lands; the effect on significant natural areas and environmental resources; the disturbance of plant and animal habitat,*

and wildlife migration corridors; the relationship of the proposed development to natural hazards; and available mitigation measures such as the preservation of open lands, the addition or restoration of natural features and screening, the reduction or arrangement of structures and land disturbance, and the use of sustainable construction techniques, resource use, and transportation management.

Staff anticipates the proposed work will not result in an over-intensive use of land or an excessive depletion of natural resources. The proposed earthwork will aid in regulation of the reservoir, ensure compliance with the Colorado Division of Water Resources' Dam Safety Branch standards, and limit potential for dam overtopping and failure.

Per materials submitted by the applicant, revegetation will include native species approved by Parks and Open Space Plant Ecology Staff. The Natural Resource Planner identified several follow up questions for the applicants on Page 2 (Page B8 in this packet) of their referral response dated February 24, 2023. The Natural Resource Planner asks that the applicant provide responses to the questions and clarifications included in the Boulder County Parks and Open Space Referral Response. Prior to permit application submittal, the applicant must address all questions outlined in this referral letter. All equipment must be cleaned to remove soil and attendant weed seeds prior to transportation to the site. All straw and/or mulch used must be certified weed-free.

Based on the application materials submitted and the recommended conditions of approval, staff finds that the proposed work will not result in an over-intensive use of land or an excessive depletion of natural resources.

Therefore, as conditioned, staff finds this criterion can be met.

(5) *Will not have a material adverse effect on community capital improvement programs;*

There is no indication the proposal will have an adverse effect on community capital improvement programs, and no referral agency has responded with such a concern.

Therefore, staff finds this criterion is met.

(6) *Will not require a level of community facilities and services greater than that which is available;*

Staff does not anticipate the proposal will have an adverse effect on community facilities and services, and no agencies submitted a response voicing any concerns about community facilities or services.

Therefore, staff finds this criterion is met.

(7) *Will support a multimodal transportation system and not result in significant negative impacts to the transportation system or traffic hazards;*

The primary accesses for the subject property are located at N. 111th Street, a paved Town of Erie owned and maintained right-of-way (ROW). Legal Access has been demonstrated via adjacency to this public ROW. A section of N. 111th Street will be briefly impacted during the portion of the project to be completed along N. 111th Street. The applicants will coordinate with the Town of Erie to prepare a traffic control plan to minimize traffic impacts to the area. The applicants must demonstrate all necessary permits and approvals for construction and access within the Town of Erie Right-of-Way and within parcels under the Town of Erie's jurisdiction. The applicants must also provide information on

hauling activity and limit hauling hours to between 8:30 AM and 4:00 PM to minimize traffic impacts.

Staff does not anticipate any changes or long-term negative impacts to the existing transportation system.

Therefore, as conditioned, staff finds this criterion can be met.

(8) *Will not cause significant air, odor, water, or noise pollution;*

Staff does not anticipate that the proposal will cause significant long-term air, odor, or water pollution with the recommended conditions of approval under criterion 4 to restore the project area following construction.

The area of disturbance is located on the Prince Lake No. 1 Reservoir Site; therefore, a Boulder County Stormwater Quality Permit (SWQP) is required. An application for a SWQP must be submitted with the grading permit application and the SWQP must be obtained prior to any work beginning on the project. The applicant is subject to all other applicable permitting requirements which may include, but are not limited to, a stormwater permit for construction activities and/or for construction dewatering from the State of Colorado.

To further protect identified natural resources within the project area, staff recommends requiring the following conditions of approval:

- a. As required by the Boulder County Storm Drainage Criteria Manual, biodegradable hydraulic fluids must be used in all equipment or machinery operating in surface waters.
- b. All machinery must be cleaned to remove aquatic nuisance species (ANS) and weed seeds in accordance with State of Colorado ANS regulations.

Therefore, as conditioned, staff finds this criterion can be met.

(9) *Will be adequately buffered or screened to mitigate any undue visual impacts of the use;*

The project area is visible from neighboring development, though any negative visual impacts of the project are expected to be temporary and limited to the length of construction. These temporary impacts are necessary to achieve the long-term benefits anticipated from the proposed rehabilitation of the dam. The proposal is expected to raise the height of the dam embankment by approximately one-foot, though this minor increase is not anticipated to significantly impact visibility to adjacent property owners due to the distance of the proposed area of disturbance to surrounding development.

Revegetation of the area as required under criterion 4 above will ensure there are no long-term undue visual impacts.

Therefore, as conditioned in Criterion 4 above, staff finds this criterion can be met.

(10) *Will not otherwise be detrimental to the health, safety, or welfare of the present or future inhabitants of Boulder County;*

The proposed rehabilitation of the dam will not be detrimental to the health, safety, or welfare of present or future inhabitants of Boulder County. No departments or agencies have responded with any comments or concerns related to this criterion.

Therefore, staff finds this criterion is met.

- (11) *Will establish an appropriate balance between current and future economic, environmental, and societal needs by minimizing the consumption and inefficient use of energy, materials, minerals, water, land, and other finite resources;*

The proposed rehabilitation will not result in overconsumption or inefficient use of energy, materials, minerals, water, land, and other finite resources. No departments or agencies have responded with any comments or concerns related to this criterion.

Therefore, staff finds this criterion is met.

- (12) *Will not result in unreasonable risk of harm to people or property – both onsite and in the surrounding area – from natural hazards. Development or activity associated with the use must avoid natural hazards, including those on the subject property and those originating off-site with a reasonable likelihood of affecting the subject property. Natural hazards include, without limitation, expansive soils or claystone, subsiding soils, soil creep areas, or questionable soils where the safe-sustaining power of the soils is in doubt; landslides, mudslides, mudfalls, debris fans, unstable slopes, and rockfalls; flash flooding corridors, alluvial fans, floodways, floodplains, and flood-prone areas; and avalanche corridors; all as identified in the Comprehensive Plan Geologic Hazard and Constraint Areas Map or through the Special Review or Limited Impact Special Review process using the best available information. Best available information includes, without limitation, updated topographic or geologic data, Colorado Geologic Survey landslide or earth/debris flow data, interim floodplain mapping data, and creek planning studies.*

Staff does not anticipate any unreasonable risk of harm to people or property – both onsite and in the surrounding area – from natural hazards as a result of this proposal. The proposed rehabilitation of the dam will minimize risk of dam overtopping and failure.

Therefore, staff finds this criterion is met.

- (13) *The proposed use shall not alter historic drainage patterns and/or flow rates unless the associated development includes acceptable mitigation measures to compensate for anticipated drainage impacts. The best available information should be used to evaluate these impacts, including without limitation the Boulder County Storm Drainage Criteria Manual, hydrologic evaluations to determine peak flows, floodplain mapping studies, updated topographic data, Colorado Geologic Survey landslide, earth/debris flow data, and creek planning studies, all as applicable given the context of the subject property and the application.*

There are no changes proposed that will alter historic drainage patterns and/or flow rates. No referral agencies have identified any concerns related to this Criterion.

Therefore, staff finds this criterion is met.

RECOMMENDATION

Staff has determined that the proposal can meet all the applicable criteria of the Boulder County Land Use Code for Limited Impact Special Use Review. Therefore, staff recommends that the Board of County Commissioners *conditionally approve docket LU-23-0003: Prince Lake No. 1 Dam Rehabilitation Project* with the following conditions:

1. ***At the time of Grading Permit application submittal***, limits of disturbance must be shown on plans submitted for permitting.
2. ***Prior to earthwork commencing***, limits of disturbance must be clearly identified in the field. Areas of existing vegetation that are to be protected should be delineated in the field so that heavy machinery is prevented from entering the areas and disturbance is avoided. This is often accomplished with orange construction fencing, rather than silt fencing. The former is less expensive, easier to install, and reusable. If on-the-ground delineation is too extensive, a suitable alternative could be proposed. If individual mature trees are to be protected, the field technique to be used shall be included in the final construction notes.
3. ***At the time of Grading Permit application submittal***, the applicant must submit for review and approval by Community Planning & Permitting, a Revegetation Plan that includes native grass and planting species to be used, mapped delineation of all disturbance areas (this includes construction staging areas and access), and locations of silt fence or erosion control logs down slope of all areas, as necessary and subject to active grading requirements. A complete list of graminoids, forbs, shrubs and trees must be approved before permitting. All plant species must include scientific names.
4. The development is subject to the requirements of the Boulder County Building Safety and Inspection Services Team and adopted County Building Codes including but not limited to, building and grading permits, design wind and snow loads, ignition-resistant construction and defensible space, observation reports, and plan review.
5. ***At building or grading permit submittal***, the applicant must address the outstanding questions identified in the referral response from the Boulder County Parks and Open Space Natural Resource Planner.
6. ***At building or grading permit submittal***, the applicant must demonstrate that all necessary approvals and permits for the construction access at Flatiron Meadows Boulevard have been obtained.
7. ***At building or grading permit submittal***, the applicant must demonstrate that all necessary approvals and permits for construction in the Town of Erie right-of-way have been obtained.
8. ***At building or grading permit submittal***, the applicant must provide an acceptable haul route map. The map must indicate the type and weight of trucks to be used and the location and weight allowances for all minor and major bridge structures traversed. Hours of hauling on Boulder County Roads shall be from 8:30 AM to 4:00 PM to limit impacts on vehicular traffic. The applicants must adhere to any construction and hauling restrictions required by the Town of Erie. Be advised that an Oversize/Overweight permit may be required from the Boulder County Public Works Department for oversize vehicles.
9. ***At building or grading permit submittal***, the applicant must submit a Stormwater Quality Permit with the building permit application A Boulder County Stormwater Quality Permit (SWQP) is required for the work that occurs in unincorporated Boulder County on the reservoir site. The SWQP application shall be submitted with any building or grading permit applications and obtained prior to any work beginning on this project. The applicant must work with the Town of Erie to obtain all appropriate approvals and permits related to stormwater in the Town of Erie. Boulder County and the Town of Erie will coordinate stormwater permit monitoring during construction. The Public Works Department MS4 Stormwater Inspector invites the applicant to review the information on the Boulder County

Stormwater Quality Permit website:

<https://www.bouldercounty.org/transportation/permits/stormwater-quality-permit/>

10. *During construction*, prior to transporting equipment to the site, all machinery must be cleaned to remove soil/mud and attendant weed seeds.
11. *During construction*, biodegradable hydraulic fluids must be used in all equipment and machinery operating in surface waters; all other applicable requirements in the SDCM must be observed.
12. *During construction*, all equipment must be cleaned and disinfected in accordance with state Division of Parks and Wildlife protocols to prevent aquatic invasive species and noxious weeds before entering the construction site.
13. *During construction and revegetation*, all straw and/or mulch used must be certified weed-free.
14. The applicants shall be subject to the terms, conditions, and commitments of record and in the file for docket **LU-23-0003: Prince Lake No. 1 Dam Rehabilitation Project.**



Boulder County Land Use Department

Courthouse Annex Building
2045 13th Street • PO Box 471 • Boulder, Colorado 80302
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Office Hours: Mon., Wed., Thurs., Fri. 8 a.m. to 4:30 p.m.
Tuesday 10 a.m. to 4:30 p.m.

Shaded Areas for Staff Use Only

Intake Stamp

Planning Application Form

The Land Use Department maintains a submittal schedule for accepting applications. Planning applications are accepted on Mondays, by appointment only. Please call 303-441-3930 to schedule a submittal appointment.

Project Number		Project Name			
<input type="checkbox"/> Appeal <input type="checkbox"/> Correction Plat <input type="checkbox"/> Exemption Plat <input type="checkbox"/> Final Plat <input checked="" type="checkbox"/> Limited Impact Special Use <input type="checkbox"/> Limited Impact Special Use Waiver <input type="checkbox"/> Location and Extent		<input type="checkbox"/> Modification of Site Plan Review <input type="checkbox"/> Modification of Special Use <input type="checkbox"/> Preliminary Plan <input type="checkbox"/> Resubdivision (Replat) <input type="checkbox"/> Rezoning		<input type="checkbox"/> Road Name Change <input type="checkbox"/> Road/Easement Vacation <input type="checkbox"/> Site Plan Review <input type="checkbox"/> Site Plan Review Waiver <input type="checkbox"/> Sketch Plan <input type="checkbox"/> Special Use/SSDP	<input type="checkbox"/> Special Use (Oil & Gas development) <input type="checkbox"/> State Interest Review (1041) <input type="checkbox"/> Subdivision Exemption <input type="checkbox"/> Variance <input type="checkbox"/> Other:
Location(s)/Street Address(es) 0 N.111th Street between Erie Parkway and Arapahoe Road;					
Boulder County Parcels 146527000027, 146526000019; HT Flatiron LP Parcel 146526227029; Town of Erie N.111th Street ROW					
Subdivision Name TR, NBR 450,460,440,820,BRNSVLL, LAF					
Lot(s)	Block(s)	Section(s) 26	Township(s) 1N	Range(s) 69	
Area in Acres 6	Existing Zoning A - Ag.	Existing Use of Property Agriculture/Open Space		Number of Proposed Lots NA	
Proposed Water Supply NA		Proposed Sewage Disposal Method NA			

Applicants:

Applicant/Property Owner Boulder County Parks & Open Space Dept.		Email obroughton@bouldercounty.org		
Mailing Address 5201 St. Vrain Road				
City Longmont	State CO	Zip Code 80503	Phone 303-918-2606	
Applicant/Property Owner/Agent/Consultant Obadiah Broughton, Project Planner, Boulder County		Email obroughton@bouldercounty.org		
Mailing Address 5201 St Vrain Road				
City Longmont	State CO	Zip Code 80503	Phone	
Agent/Consultant		Email		
Mailing Address				
City	State	Zip Code	Phone	

Certification (Please refer to the Regulations and Application Submittal Package for complete application requirements.)

I certify that I am signing this Application Form as an owner of record of the property included in the Application. I certify that the information and exhibits I have submitted are true and correct to the best of my knowledge. I understand that all materials required by Boulder County must be submitted prior to having this matter processed. I understand that public hearings or meetings may be required. I understand that I must sign an Agreement of Payment for Application processing fees, and that additional fees or materials may be required as a result of considerations which may arise in the processing of this docket. I understand that the road, school, and park dedications may be required as a condition of approval.

I understand that I am consenting to allow the County Staff involved in this application or their designees to enter onto and inspect the subject property at any reasonable time, without obtaining any prior consent.

All landowners are required to sign application. If additional space is needed, attach additional sheet signed and dated.

Signature of Property Owner <i>Therese Glowacki</i>	Printed Name Therese Glowacki; Director	Date January 12, 2023
Signature of Property Owner	Printed Name	Date

The Land Use Director may waive the landowner signature requirement for good cause, under the applicable provisions of the Land Use Code.



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The Land Use Department maintains a submittal schedule for accepting applications. Planning applications are accepted on Mondays, by appointment only. Please call 303-441-3930 to schedule a submittal appointment.

Project Number		Project Name		
<input type="checkbox"/> Appeal <input type="checkbox"/> Correction Plat <input type="checkbox"/> Exemption Plat <input type="checkbox"/> Final Plat <input checked="" type="checkbox"/> Limited Impact Special Use <input type="checkbox"/> Limited Impact Special Use Waiver <input type="checkbox"/> Location and Extent		<input type="checkbox"/> Modification of Site Plan Review <input type="checkbox"/> Modification of Special Use <input type="checkbox"/> Preliminary Plan <input type="checkbox"/> Resubdivision (Replat) <input type="checkbox"/> Rezoning		<input type="checkbox"/> Road Name Change <input type="checkbox"/> Road/Easement Vacation <input type="checkbox"/> Site Plan Review <input type="checkbox"/> Site Plan Review Waiver <input type="checkbox"/> Sketch Plan <input type="checkbox"/> Special Use/SSDP
		<input type="checkbox"/> Special Use (Oil & Gas development) <input type="checkbox"/> State Interest Review (1041) <input type="checkbox"/> Subdivision Exemption <input type="checkbox"/> Variance <input type="checkbox"/> Other:		
Location(s)/Street Address(es) 0 N.111th Street between Erie Parkway and Arapahoe Road				
Boulder County Parcels 146527000027, 146526000019; HT Flatiron LP Parcel 146526227029; Town of Erie N.111th Street ROW				
Subdivision Name TR, NBR 450,460,440,820,BRNSVLL, LAF				
Lot(s)	Block(s)	Section(s) 26	Township(s) 1N	Range(s) 69
Area in Acres 6	Existing Zoning A - Ag.	Existing Use of Property Agriculture/Open Space		Number of Proposed Lots NA
Proposed Water Supply NA		Proposed Sewage Disposal Method NA		

Applicants:


Applicant/Property Owner Boulder County Parks & Open Space Dept.		Email obroughton@bouldercounty.org		
Mailing Address 5201 St. Vrain Road				
City Longmont	State CO	Zip Code 80503	Phone 303-918-2606	
Applicant/Property Owner/Agent/Consultant Obadiah Broughton, Project Planner, Boulder County		Email obroughton@bouldercounty.org		
Mailing Address 5201 St Vrain Road				
City Longmont	State CO	Zip Code 80503	Phone	
Agent/Consultant		Email		
Mailing Address				
City	State	Zip Code	Phone	

Certification (Please refer to the Regulations and Application Submittal Package for complete application requirements.)

I certify that I am signing this Application Form as an owner of record of the property included in the Application. I certify that the information and exhibits I have submitted are true and correct to the best of my knowledge. I understand that all materials required by Boulder County must be submitted prior to having this matter processed. I understand that public hearings or meetings may be required. I understand that I must sign an Agreement of Payment for Application processing fees, and that additional fees or materials may be required as a result of considerations which may arise in the processing of this docket. I understand that the road, school, and park dedications may be required as a condition of approval.

I understand that I am consenting to allow the County Staff involved in this application or their designees to enter onto and inspect the subject property at any reasonable time, without obtaining any prior consent.

All landowners are required to sign application. If additional space is needed, attach additional sheet signed and dated.

Signature of Property Owner 	Printed Name Todd Fessenden	Date 12/20/22
Signature of Property Owner	Printed Name	Date

The Land Use Director may waive the landowner signature requirement for good cause, under the applicable provisions of the Land Use Code.



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Vicinity

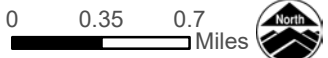
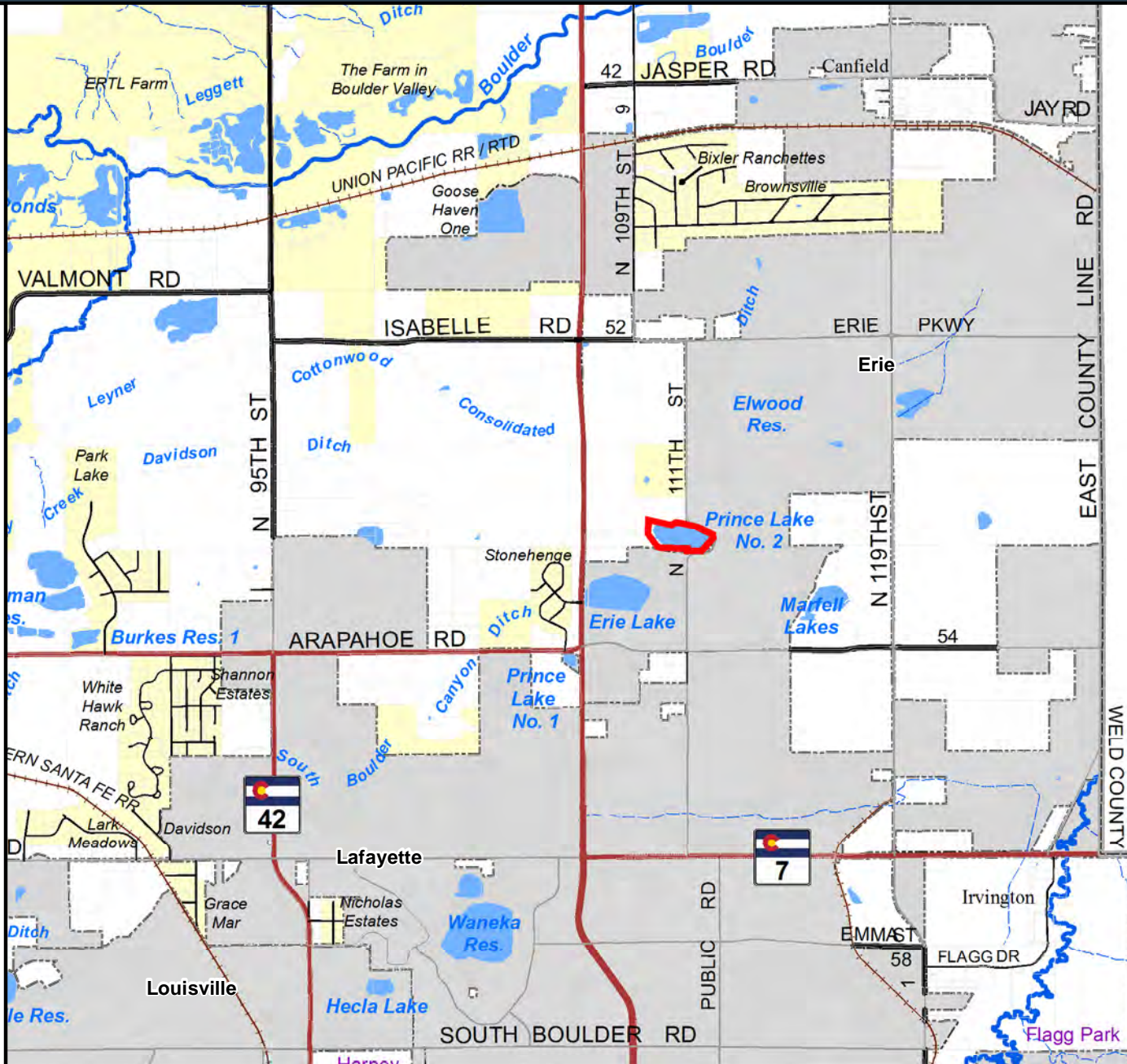
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Subject Parcel

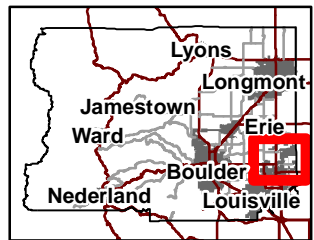
Municipalities

Subdivisions

Subdivisions



Area of Detail Date: 8/25/2022



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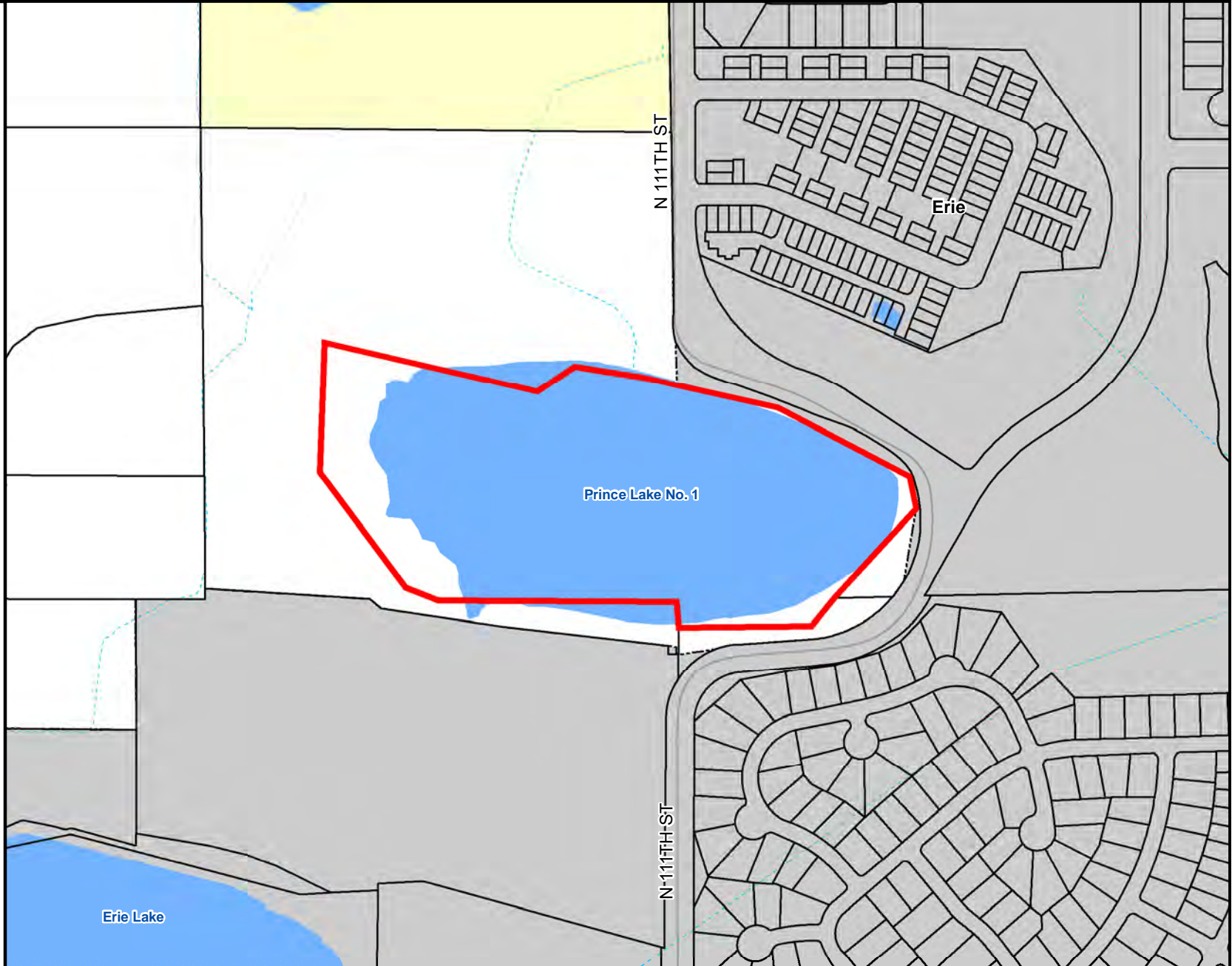
Location

0 N 111TH ST, 14652600019

Subject Parcel

Subdivisions

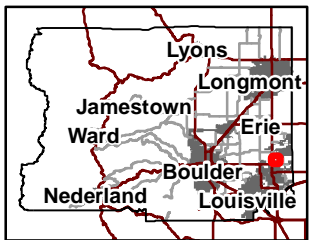
Subdivisions



0 0.035 0.07 Miles



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Aerial

0 N 111TH ST, 146526000019

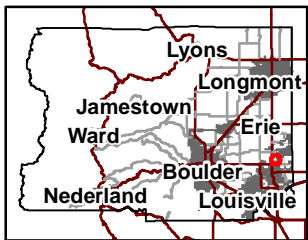
 Subject Parcel



0 0.015 0.03 Miles



Area of Detail Date: 8/25/2022



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Aerial

0 N 111TH ST, 14652600019

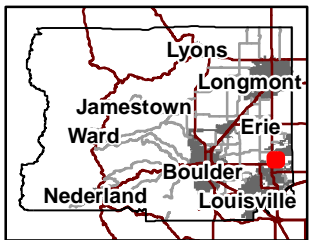
 Subject Parcel



0 0.05 0.1 Miles



Area of Detail Date: 8/25/2022



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Comprehensive Plan

0 N 111TH ST, 14652600019

Subject Parcel

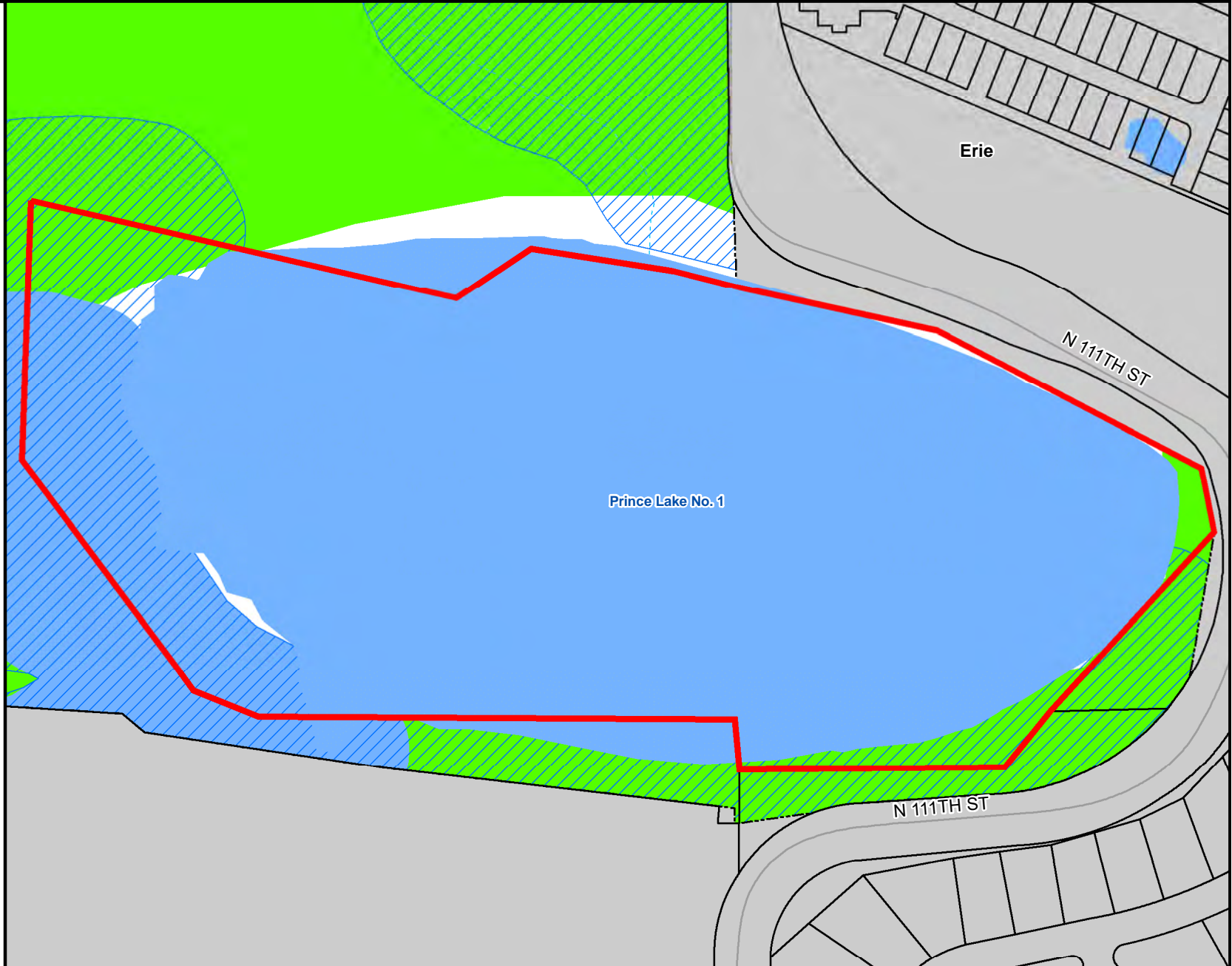
Riparian Areas

Wetlands

Significant Agricultural Land

Ag of National Importance

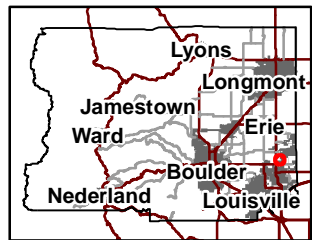
Ag of Statewide Importance



0 0.015 0.03 Miles



Area of Detail Date: 8/25/2022



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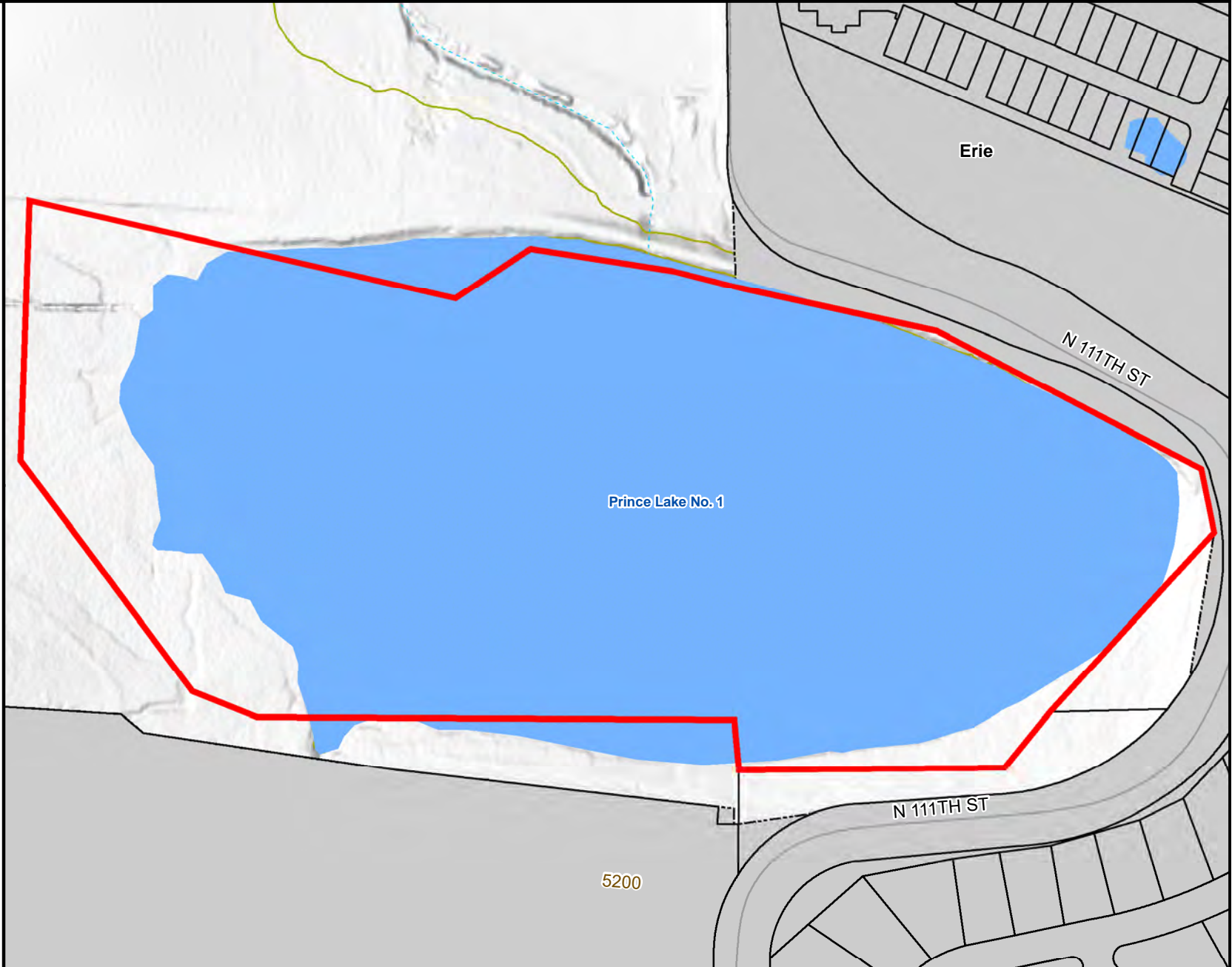
Community Planning & Permitting

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Elevation Contours

0 N 111TH ST, 14652600019

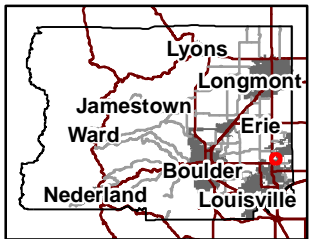
- Subject Parcel
- Contours 40'
- Contours 20'



0 0.015 0.03 Miles



Area of Detail Date: 8/25/2022



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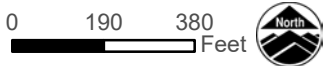
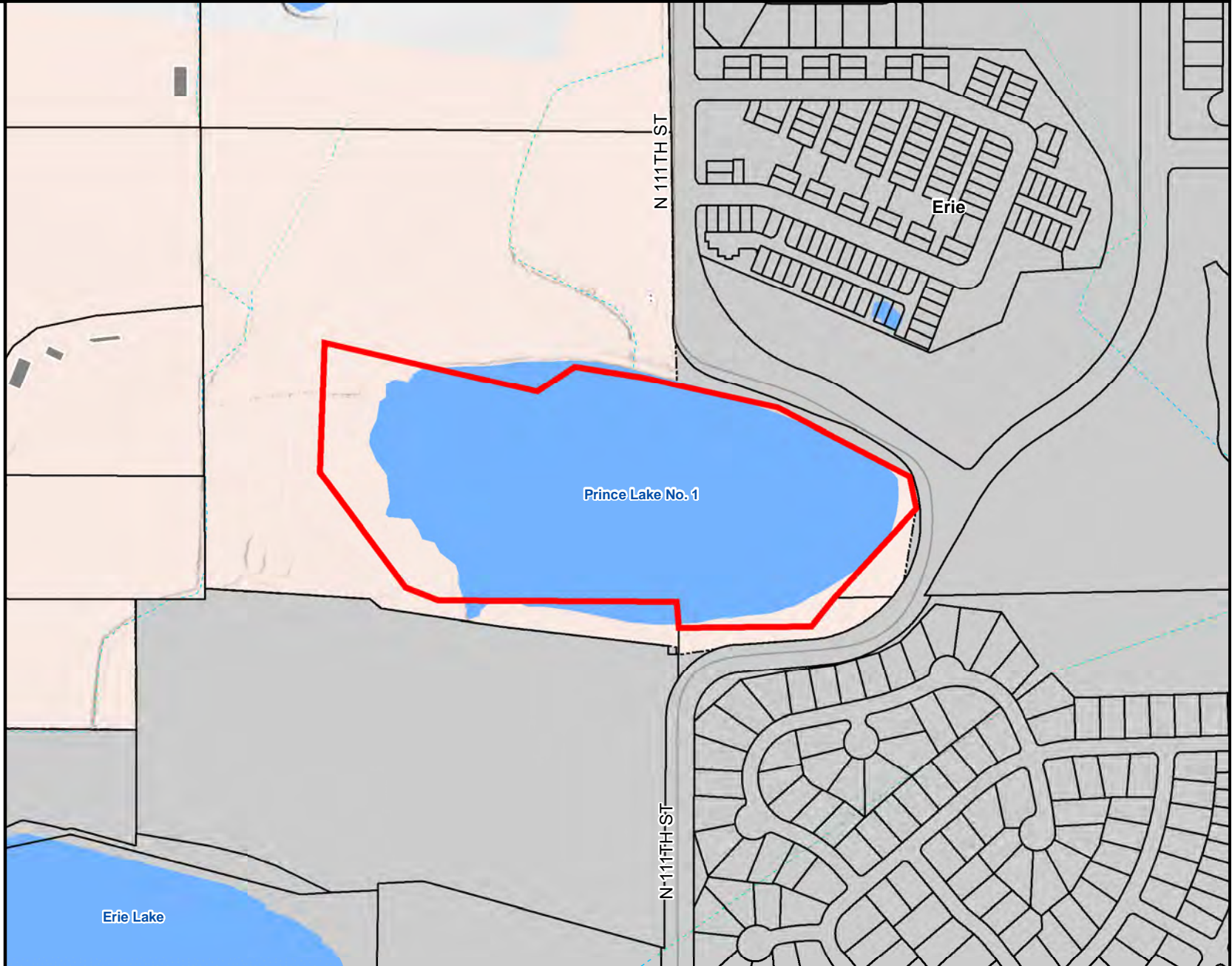
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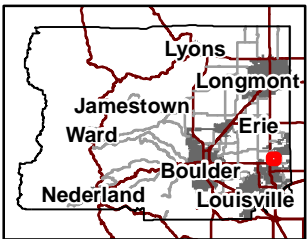
Geologic Hazards

0 N 111TH ST, 14652600019

- Subject Parcel
- Moderate Swelling Soil Potential



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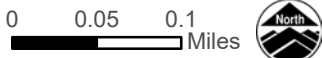
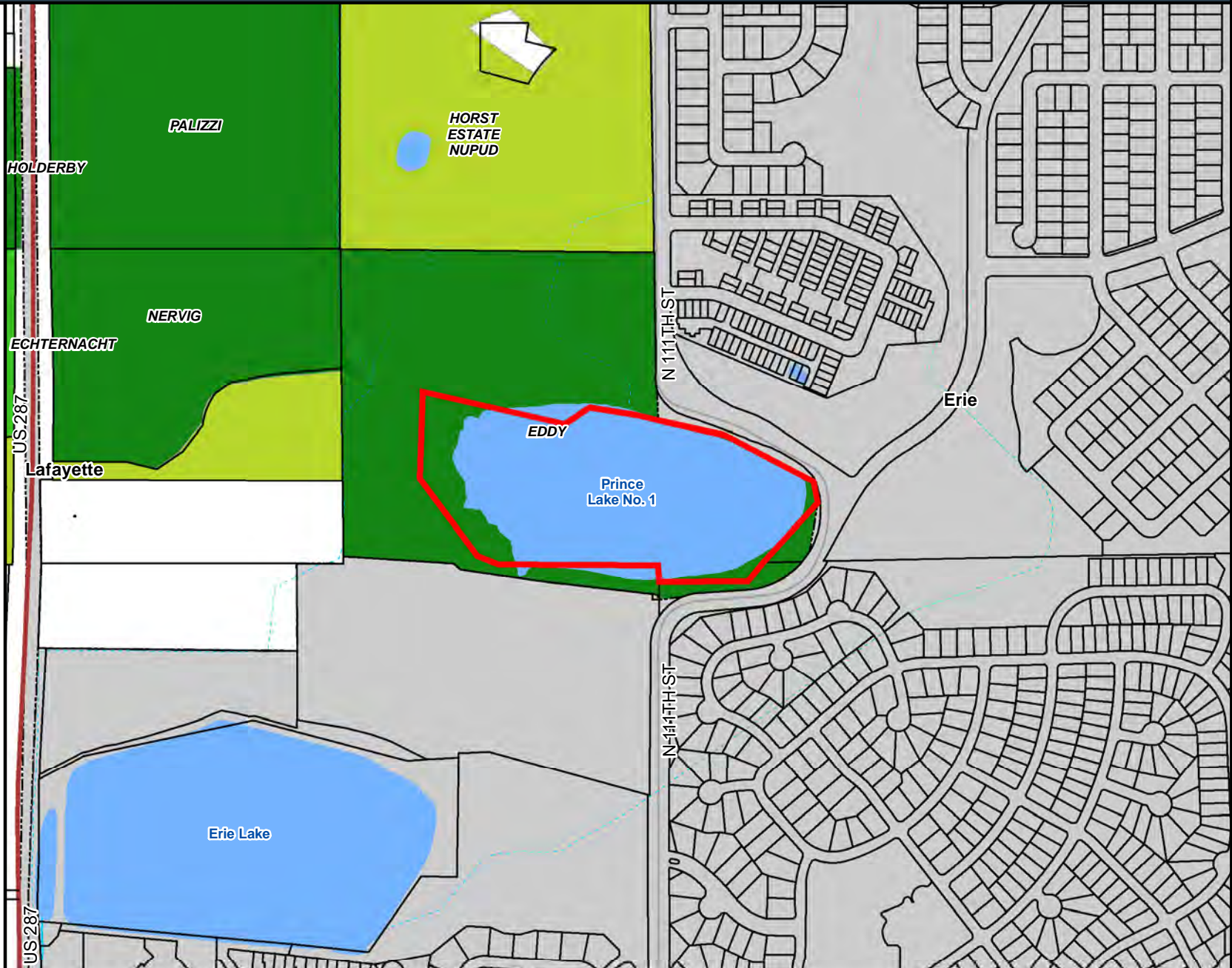
Public Lands & CEs

0 N 111TH ST, 14652600019

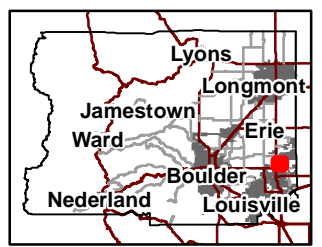
Subject Parcel

Boulder County Open Space

- County Open Space
- Joint County/Municipal Open Space
- County Conservation Easement



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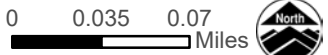
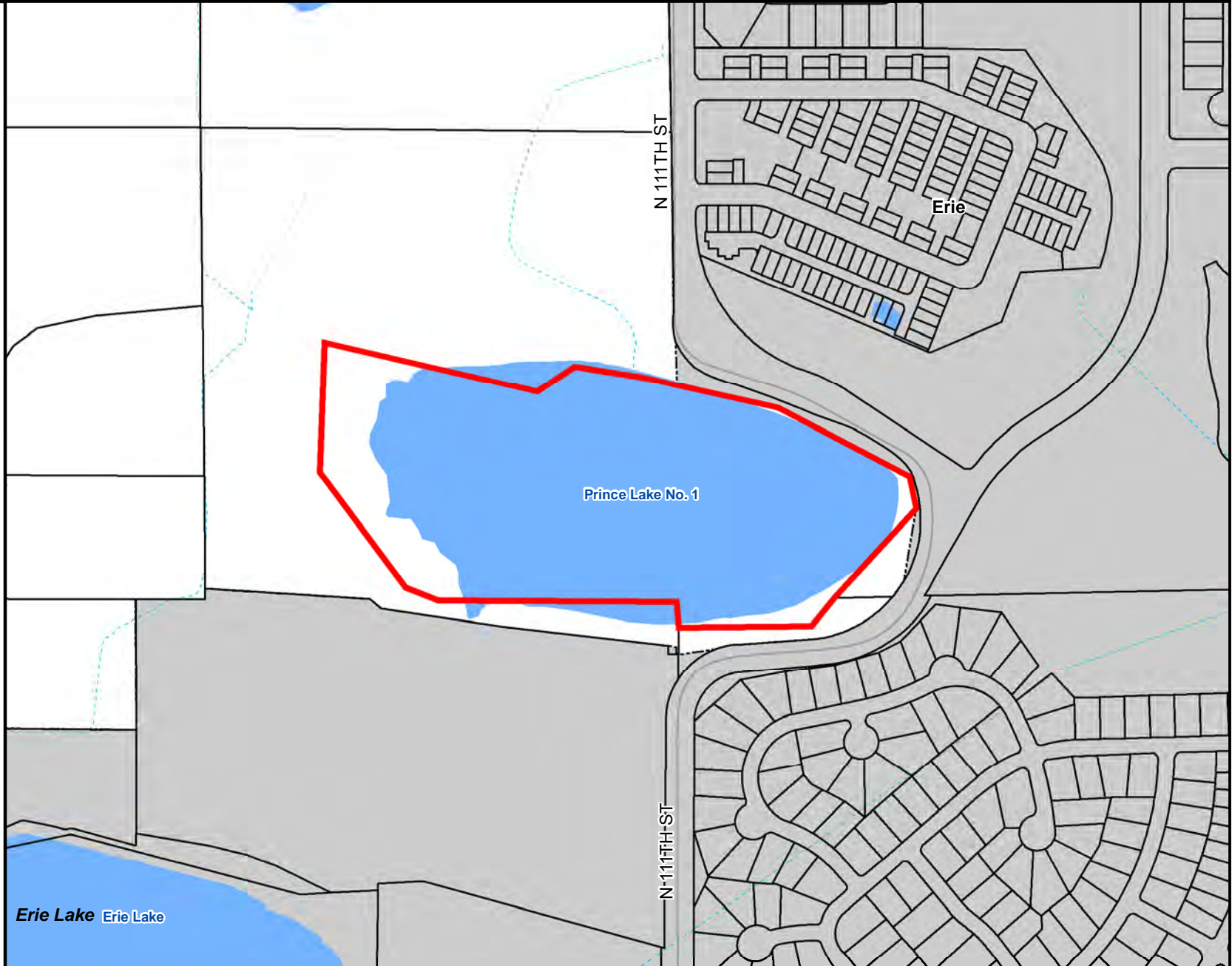
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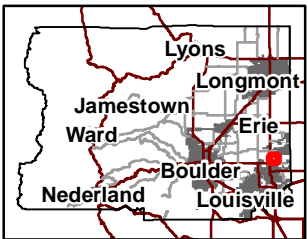
Planning Areas

0 N 111TH ST, 14652600019

-  Subject Parcel
-  Municipal Watersheds



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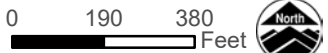
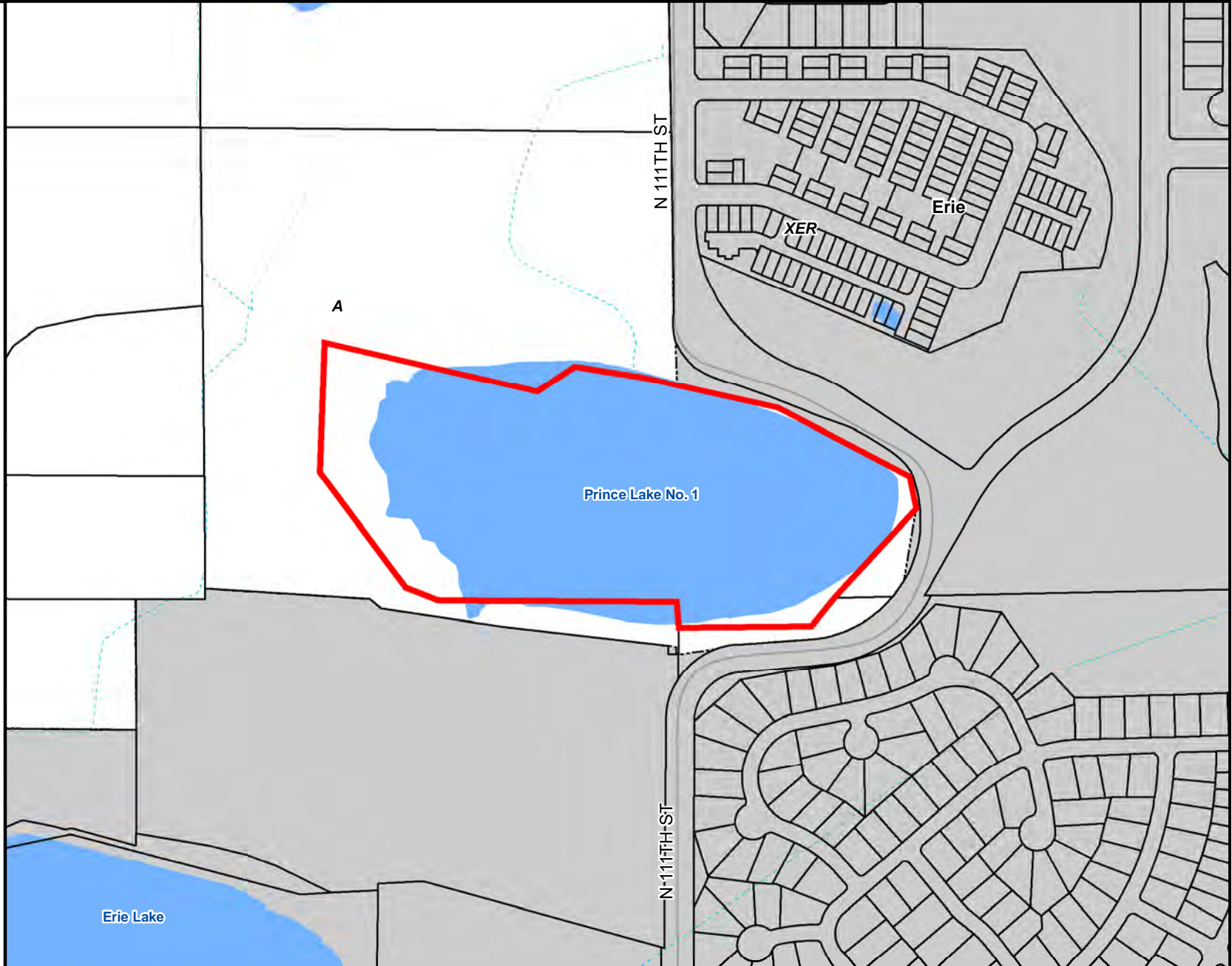
Zoning

0 N 111TH ST, 146526000019

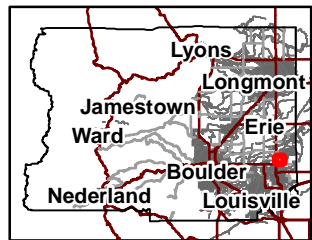
Subject Parcel

Zoning Districts

Agricultural



Area of Detail Date: 8/25/2022



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Limited Impact Special Use Review Fact Sheet

Project Identification

Project Name: Prince Lake No. 1Dam Rehabilitation Project
Property Address/Location: 0 N.111th Street between Erie Parkway and Arapahoe Road
Current Owner: Boulder County Parks & Open Space
Size of Property in Acres: 50.67 Acres Parcel 146527000027 (29.21 ac) & Parcel 146526000019 (21.46 ac)

The applicant(s) is/are required to complete each section of this Limited Impact Special Use Review Fact Sheet even if the information is duplicated elsewhere in the application. Completed Fact Sheets reduce the application review time which helps expediate the Director's Determination. Please make duplicates of this Limited Impact Special Use Review Fact Sheet if the project involves more than two structures.

Determining Floor Area

If an existing wall(s) and/or roof(s) are removed and a new wall(s)/roof(s) are constructed, the associated floor area due to the new wall(s)/roof(s) are considered new construction and must be included in the calculation of floor area for the Limited Impact Special Use Review and shown on this Fact Sheet.

Structure #1 Information

Type of Structure: (e.g. residence, studio, barn, etc.)		N/A	
Total Existing Floor Area: (Finished + Unfinished square feet including garage if attached.)		sq. ft.	Deconstruction: sq. ft.
Are new floor areas being proposed where demolition will occur? <input type="checkbox"/> Yes (include the new floor area square footage in the table below) <input type="checkbox"/> No			
Proposed Floor Area (New Construction Only)			
	Finished	Unfinished	Total
Basement:	sq. ft.	sq. ft.	sq. ft.
First Floor:	sq. ft.	sq. ft.	sq. ft.
Second Floor:	sq. ft.	sq. ft.	sq. ft.
Garage: <input type="checkbox"/> Detached <input type="checkbox"/> Attached	sq. ft.	sq. ft.	sq. ft.
Covered Deck:	sq. ft.	sq. ft.	sq. ft.
Total:	sq. ft.	sq. ft.	sq. ft.
			Height (above existing grade)
			Exterior Wall Material
			Exterior Wall Color
			Roofing Material
			Roofing Color
			Total Bedrooms

Structure #2 Information

Type of Structure: (e.g. residence, studio, barn, etc.)		N/A	
Total Existing Floor Area: (Finished + Unfinished square feet including garage if attached.)		sq. ft.	Deconstruction: sq. ft.
Are new floor areas being proposed where demolition will occur? <input type="checkbox"/> Yes (include the new floor area square footage in the table below) <input type="checkbox"/> No			
Proposed Floor Area (New Construction Only)			
	Finished	Unfinished	Total
Basement:	sq. ft.	sq. ft.	sq. ft.
First Floor:	sq. ft.	sq. ft.	sq. ft.
Second Floor:	sq. ft.	sq. ft.	sq. ft.
Garage: <input type="checkbox"/> Detached <input type="checkbox"/> Attached	sq. ft.	sq. ft.	sq. ft.
Covered Deck:	sq. ft.	sq. ft.	sq. ft.
Total:	sq. ft.	sq. ft.	sq. ft.
			Height (above existing grade)
			Exterior Wall Material
			Exterior Wall Color
			Roofing Material
			Roofing Color
			Total Bedrooms

Grading Calculation

Cut and fill calculations are necessary to evaluate the disturbance of a project and to verify whether or not a Limited Impact Special Use Review (LISR) is required. A Limited Impact Special Use Review is required when grading for a project involves more than 500 cubic yards (minus normal cut/fill and backfill contained within the foundation footprint).

If grading totals are close to the 500 yard trigger, additional information may be required, such as a grading plan stamped by a Colorado Registered Professional Engineer.

Earth Work and Grading

This worksheet is to help you accurately determine the amount of grading for the property in accordance with the Boulder County Land Use Code. Please fill in all applicable boxes.

Note: Applicant(s) must fill in the shaded boxes even though foundation work does not contribute toward the 500 cubic yard trigger requiring Limited Impact Special Use Review. Also, all areas of earthwork must be represented on the site plan.

Earth Work and Grading Worksheet:

	Cut	Fill	Subtotal
Driveway and Parking Areas			
Berm(s)			
Other Grading	6,000 CY	16,532 CY	22,532 CY
Subtotal	6,000 CY	16,532 CY	22,532 CY <small>Box 1</small>

* If the total in Box 1 is greater than 500 cubic yards, then a Limited Impact Special Review is required.

	Cut	Fill	Total
Foundation			
Material cut from foundation excavation that will be removed from the property			

Excess Material will be Transported to the Following Location:

Excess Materials Transport Location:
Cut material from existing dam will be used on site for fill. No excess material will be generated.

Is Your Property Gated and Locked?

Note: If county personnel cannot access the property, it could cause delays in reviewing your application.

Certification

I certify that the information submitted is complete and correct. I agree to clearly identify the property (if not already addressed) and stake the location of the improvements on the site within four days of submitting this application. I understand that the intent of the Site Plan Review process is to address the impacts of location and type of structures, and that modifications may be required. Site work will not be done prior to issuance of a Grading or Building Permit.

Signature Obadiah Broughton; BCPOS Project Coordinator/Planner <i>Obadiah Broughton</i>	Date 1/10/2023
--	-------------------

Prince Lake No. 1 Dam Rehabilitation Project Development Narrative for LISU Review

January 17, 2023

PROJECT PROPONENTS

Boulder County Parks & Open Space (land owner)

Town of Erie (landowner)

HT Flatiron LP (landowner)

PROJECT OVERVIEW

The Prince Lake No. 1 Dam Rehabilitation project is in unincorporated Boulder County immediately west of the Town of Erie. It is located just east of Highway 287 on N. 111th Street between Erie Parkway and Arapahoe Road. The project is located primarily on Boulder County's Eddy Open Space, with a portion of the project occurring in the Town of Erie's Right-of-Way (ROW) along N.111th Street, and parcel of land east of the N.111th Street owned by HT Flatiron LP.

Boulder County Parks & Open Space (County) is implementing dam improvements to the County's Prince Lake No. 1 reservoir's dam, known as the Prince Lake No.1 Dam, to modernize the facility, to improve the County's ability to operate the reservoir, and to ensure agricultural water can continue to be stored in the reservoir by bringing the reservoir into compliance with newly applicable Colorado Dam Safety Regulations. The county purchased the property in 2000 and the earthen dam was originally constructed in 1879 to store irrigation water. The Hazard Classification of the dam was recently increased by the Colorado Division of Water Resources' Dam Safety Branch from Low Hazard to Significant Hazard. In addition to improving our ability to operate the reservoir, the project will reduce hazards by addressing items raised by the Dam Safety Branch when they increased the hazard class of the dam in 2017. The primary hazard is a flood surge that would result from an overtopping of the dam that would create a breaching failure of the dam. Construction of this project will dramatically reduce the potential for an overtopping event that would result in dam failure and a flood surge downstream.

As noted above, Prince Lake No. 1 Dam is in unincorporated Boulder County and west of and adjacent to the Town of Erie. To the north and east of the dam, and immediately downstream of the dam, is the Flatirons Meadows subdivision with the Town of Erie city limits. The dam and the subdivision are separated by N.111th Street and a large drainage channel designed to route flood flows around and through the subdivision and into a large detention basin. Along the northern boundary of the subdivision lies Erie Parkway, a primary travel route that runs east-west between Erie and points west including State Highway 287, a primary highway in Boulder County that runs north-south. Lands north of Erie Parkway lie in unincorporated Boulder County.

Attachment A

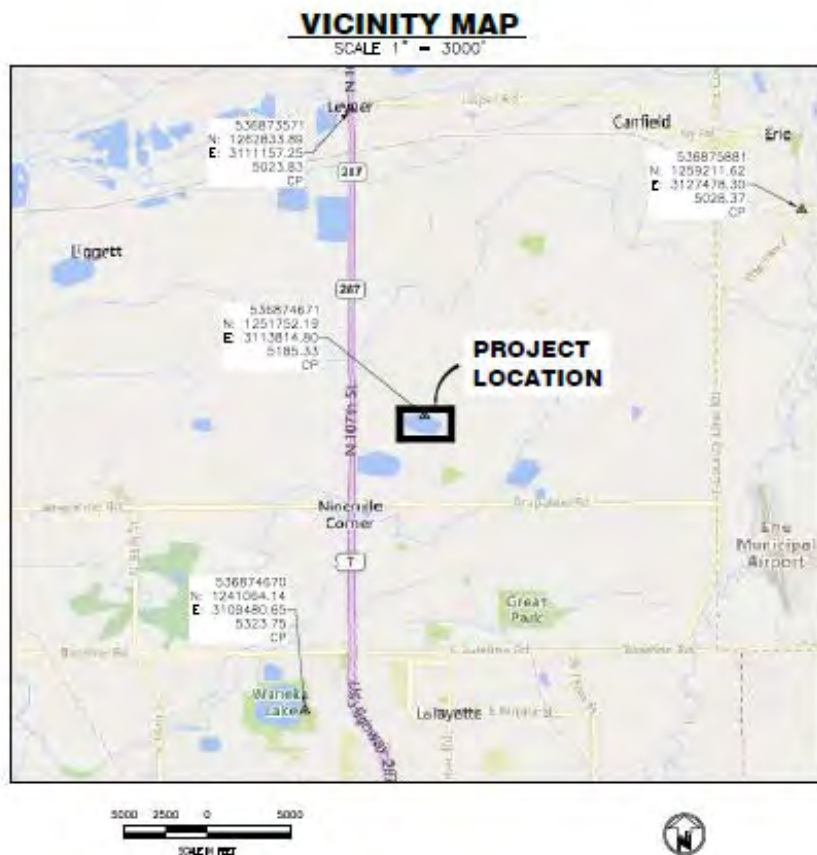
The Prince Lake No. 1 reservoir stores County-owned irrigation water rights received from the South Boulder Canon Ditch and provides irrigation water for agricultural operations on County owned open space north and west of the reservoir. After completion of this project, the reservoir's Normal Storage Capacity will be 82 ac-ft, with a Maximum Storage Capacity 153 ac-ft.

The primary project components include:

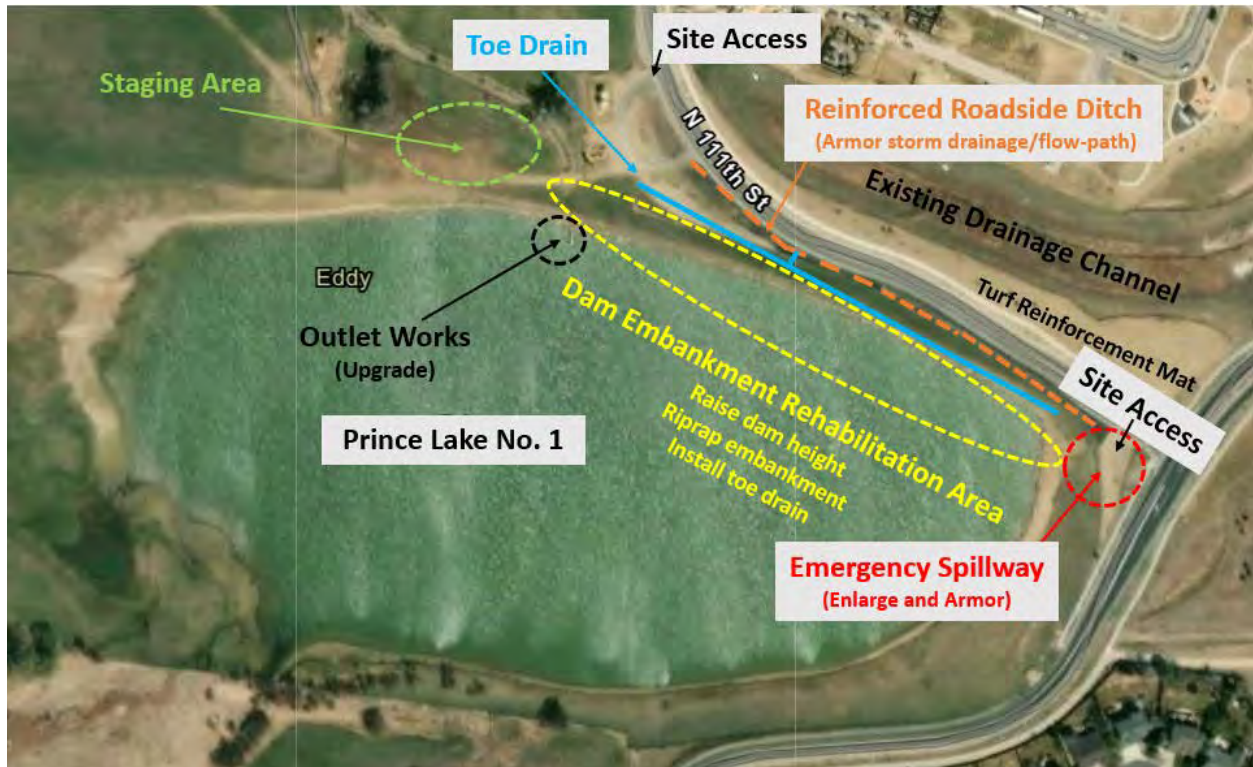
- Reinforcing and raising the dam height;
- Enlarging and armoring the emergency spillway;
- Improving and protecting the storm drainage flow-route from the emergency spillway to the subdivision's recently constructed drainageway;
- Raising and protecting the dam embankment with riprap and a toe drain; and
- Modernizing and enlarging the outlet works.

Rehabilitating the dam with these mitigations will greatly reduce the potential for catastrophic failure and/or breaching of the dam resulting from a piping failure or overtopping. With these mitigations in place, the potential for failure due to a large storm event will decrease from a 2% AEP (Annual Exceedance Probability) to 0.1% AEP.

PROJECT LOCATION



GENERAL SITE PLAN



- Prince Lake No. 1 reservoir is located within the Eddy Open Space on Parcels 14652700027 and 14652600019
- N.111th Street is in the Town of Erie’s city limits. Work will be performed on the roadside ditch in the Town’s ROW.
- HT Flatiron LP owns Parcel 146526227029 which includes a large drainage channel. Additional slope protection matting will be installed downstream of N.111th Street on this parcel.

PROJECT GOALS

Specific goals of this project include:

- Modernize operability of reservoir for water storage and delivery in support of current agricultural use;
- Ensure water storage right is retained by improving dam to comply with Dam Safety regulations that are applicable to new hazard classification;
- Increase stability of embankment with rehabilitation of upstream embankment and addition of toe drain to downstream side;
- Reduce potential for overtopping by increasing freeboard and increasing size of emergency spillway;
- Reduce potential for piping failure by replacing outlet works and installing toe drain; and

- Formalize and stabilize storm-water flow path between emergency spillway and Erie’s newly-constructed drainageway channel.

PROJECT DESCRIPTION

Project components

- **DAM EMBANKMENT:** Raise the dam crest one foot and establish safe slopes to provide three feet of freeboard between the spillway crest and dam crest elevation. The revised dam crest elevation will be 5,186.0 feet. Provide slope protection with 18-inch-thick 9-inch D50 riprap.
- **SPILLWAY:** Construct a 90-foot wide spillway capable of passing the runoff from the 0.1% AEP (Annual Exceedance Probability) design storm through the reservoir with 1 foot of residual freeboard. Provide spillway protection with 18-inch-thick 9-inch D50 riprap. Provide additional slope protection downstream of N.111th Street with High Performance Turf Reinforcement Mat (TRM).
- **OUTLET WORKS:** Replace the existing 12-inch diameter Corrugated Metal Pipe (CMP) low-level outlet pipe with a new 18-inch diameter concrete-encased Polyvinyl Chloride (PVC) pipe and a new slide gate to regulate reservoir water levels.
- **TOE DRAIN:** Install a toe drain along the downstream toe of the dam to filter and collect seepage through the embankment.

Dam Embankment and Spillway

The dam embankment is an existing earthen dam that has a jurisdictional height of 11 feet. The existing dam was constructed in 1893, and the embankment was presumably constructed as a farm pond using onsite borrow materials. The existing dam crest provides 2 feet of freeboard, and the dam crest will be raised one foot to provide 3 feet of freeboard. The 1-foot raise will consist of material similar to the material already in the existing embankment, i.e., clayey to silty sand. The final dam crest will have a 2% slope back towards the reservoir water level, and the downstream edge of the dam crest will have a final elevation of 5,186.0 feet.

The following summarizes key components of the enlarged dam embankment:

- The existing dam crest will be raised from its current elevation of 5,185 feet to a new crest elevation of 5,186 feet. This raise will provide 3 feet of normal freeboard, while also providing storage capacity adequate to store the 80.4 ac-ft of decreed storage rights.
- The slope of the upstream dam face will be 3H:1V
- Slope of the downstream dam face will range from 2H:1V for the top 1-foot vertical dam raise, and the downstream slope will range from 2H:1V to 3H:1V for the existing slope to remain below the dam raise.

Riprap will also be placed along the upstream face of the dam embankment. It will be placed from elevation 5,178.0 to 5,184.3 feet based on the wave runup and wind setup analysis.

The existing spillway is undersized and has an adverse slope. The new spillway will be enlarged and have a 90-foot bottom width with side slopes of 3H:1V. The spillway will be lined with 18-inch thick riprap with median diameter of 9 inches, and a 9-inch thick layer of riprap bedding will be placed beneath the riprap.

On the rare occasions when the re-enforced spillway is activated, flows up to 100 cfs will be conveyed south down N. 111th Street to a sag point in the road where they will be conveyed under and over the road. From the spillway, the flow will be conveyed in the road side ditch and swale and up to the road crown of N. 111th. Flows in excess of 100cfs would crest the road crown and flow across the road embankment and into existing drainage channel north of N. 111th Street. A high-performance turf reinforcement mat (TRM) will be installed east of N. 111th Street to protect from erosive forces caused by spillway flows cresting over N. 111th Street. Riprap will be placed along the downstream toe of the dam to protect the toe of the dam from erosion associated with spillway discharge that will be conveyed along the south side of N.111th Street. The armoring of road-side ditch and swale will occur with an 18-inch thick strip of riprap with median diameter of 9 inches.

Outlet Works

Replacement of the existing outlet works will occur by excavating down through the embankment to remove the existing 12-inch diameter CMP outlet pipe. The new outlet pipe would then be installed, and the embankment material replaced and compacted. The new outlet will consist of 18-inch diameter DR 32.5 PVC pipe encased in reinforced concrete that will lie on top of a 4.5-foot wide concrete mud matt. The proposed outlet works will be controlled upstream with an 18-inch inclined slide gate installed on a new inlet structure.

Toe Drain

A toe drain will be installed at the downstream toe of the dam. It will be located upstream of the recently constructed sanitary sewer inlet and gravel pack where seepage has been observed. The intent of the toe drain is to collect and filter seepage at the downstream toe of the dam that is currently daylighting at the storm sewer inlet downstream of the dam. A perforated 8-inch diameter pipe will be installed along the downstream toe of the dam, and the toe drain will discharge to the Town of Erie's storm sewer and recently constructed sewer inlet structure which in turn drains into the existing drainage channel east of N.111th Street.

CONSTRUCTION RELATED REQUIREMENTS

Dewatering

The reservoir will need to be dewatered prior to initiating construction. The water level was approximately 5,182 feet during the September 2021 survey, which corresponds to approximately 70 ac-ft based on the elevation-area-capacity table for the existing dam. It is assumed approximately 50 to 55 ac-ft of the 66 ac-ft currently in storage can be gravity released via the existing outlet pipe and ditch. The other 10 to 16 ac-ft of stored water will need to be pumped from the lake and discharged to the downstream outlet ditch. Groundwater may also need to be dewatered prior to and during construction. The need for substantial groundwater dewatering is anticipated to be minimal. Some pumping of groundwater from the bottom of the toe drain excavation will likely be required for toe drain installation.

Site Access

Site access will be from N.111th Street at the existing gate location near the oil and gas facilities, which is directly east of the discharge point for the existing and proposed low-level outlet structure. Additional site access to the east side of the project site will be from Flatirons Meadows Blvd. Staging area for construction equipment and materials will be to the northwest of the existing dam and outlet structure. See above and see the Proposed Site Plan Sheet of the Construction Drawings for proposed site access and staging area locations.

Earthwork and Imported Material

Earthwork and imported materials are summarized in Table 1 below. In total, 22,532 CY of grading is proposed. Cut of 6,000 CY of material is planned and Fill of 16,532 CY of material is planned. 3,650 CY of un-classified fill material will need to be imported to the site to build up the dam embankment. This amount has been incorporated into the Fill quantity in Table 1. Depending on the characteristics of a nearby County stream restoration project this fill material may be imported from there. If not, the selected construction contractor will locate and import the required fill material. 6,000 CY of riprap and riprap bedding will be imported and placed for slope and embankment protection. Concrete, filter and drain sand, and topsoil will also be imported to the project site.

Table 1, Earthwork Summary

Cut, cubic yards	Fill, cubic yards	Total, cubic yards
6,000	16,532	22,532

Imported Materials, Staging, Refueling, and Hauling Routes

Aggregates, concrete, outlet and drain pipe and water control-related infrastructure will be imported for this project. Table 2 (Summary of Imported Material) outlines construction material that will be delivered to the site. Imported aggregate materials (approx. 10,532 CY) will come into the project area to the project site via the access points on N.111th Street. Proposed site access and staging area locations are included on the Site Plan Sheet of the Construction Drawings. Final access, haul routes, staging, and refueling areas will be confirmed by the contractor at the time of the grading permit application. The entire project footprint is located outside of the 100-year floodplain.

Table 2, Summary of Imported Materials

Aggregate Material (included in Earthwork calcs)	Other Materials
<ul style="list-style-type: none"> • Un-classified fill (3,650 CY) • Riprap (4,000 CY) • Riprap bedding (2,000 CY) • Filter and toe drain sand (280 CY) • Concrete (35 CY) • Topsoil (567 CY) 	<ul style="list-style-type: none"> • Diversion Head-gate (1) • Trash Rack (1) • 18" Outlet Pipe (44 LF) • 8" Drain Pipe (775 LF) • 12" Drain Pipe (13 LF)

Erosion Control

Erosion control will follow Best Management Practices such as erosion control installation to prevent soil migration into waterways including around areas of ground disturbance, materials staging, and equipment staging. Vehicle Tracking Control (VTC) pads will be placed at the site access points shown in the Proposed Site Plan Sheet of the Construction Drawings. Soil control logs will be placed along N. 111th Street and Flatirons Meadows Blvd to mitigate soil runoff to nearby roads. Soil control logs will also be placed along the northern boundary of the staging area to mitigate soil runoff to the outlet ditch north of the site. VTC and soil control logs will be constructed according to MHFD details and maintained throughout the construction period. Final erosion control plans will be finalized in coordination with the construction contractor at the time of the grading permit and stormwater permit application.

Revegetation

All areas disturbed during construction will be revegetated with native seed per specifications approved by Parks and Open Space Plant Ecology staff. Native grass will be reseeded within the limits of disturbance where other restorative features are not installed (e.g., riprap). Hay/straw mulch will be placed in revegetation areas with slopes less than 3H:1V, and coir mat will be placed in revegetation areas with slopes steeper than 3H:1V. The revegetation plan is included on the proposed Site Restoration Sheet of the of the Construction Drawings. The final revegetation plan will be submitted with Final Construction Drawings at the time of the grading permit application.

Construction Timing

It is anticipated that active construction will have a duration of approximately 8 months. Ideally, construction will occur primarily during fall and wintertime when agricultural water is not needed. Assuming grant funding and all permits can be secured, we plan to start construction in Fall of 2023.

ADDITIONAL CONSIDERATIONS/REVIEW CRITERIA

The Boulder County Comprehensive Plan has two designations that cover the project area. The following discussion outlines the designations and the compatibility of the project with those designations.

Riparian Area/Wetlands- this project will enhance all of the values associated with these designations by creating a stable, resilient reservoir and dam. Updating this dam and outlet works, resilient to future

flooding, will ensure the continued viability to the existing riparian and wetland vegetation. Additionally, the construction footprint will avoid all mapped wetlands

Agricultural Lands of National, State, and Local Importance – The Prince Lake No. 1 reservoir provides agricultural water to the Eddy and Palizzi Open Space properties. These lands remain in agricultural production and are designated as having National and State Importance. Updating this dam and outlet works, resilient to future flooding, will ensure the continued viability of these lands preserved for this purpose through the county’s open space program.

STATUS OF PERMITS

The project team is coordinating with multiple state and federal agencies to obtain appropriate permits.

- **US Army Corps of Engineers (USACE)** – Non-Jurisdictional Determination from USACE. The USACE determined that Prince Reservoir No. 1 is not waters of the United States and does not meet the definition of waters of the United States. Therefore, a permit is not required under Section 404 for the discharge of fill material (see attached).
- **Federal Emergency Management Agency (FEMA) NEPA** - Potentially receiving a FEMA HMGP grant to fund construction. If awarded, NEPA compliance would be required.
- **Right-of-Way (ROW) Permit, Town of Erie** - Coordination with the Town of Erie’s Public Works department is ongoing. A ROW permit to work in the Town’s ROW will be obtained prior to construction.
- **Stormwater Permit, Town of Erie and Boulder County** - Coordination with the Town of Erie’s Public Works department is ongoing. A Stormwater permit to work in the Town’s ROW will be obtained prior to construction. The Town has suggested working together with County stormwater staff in order to take a coordinated approach to monitoring during construction.
- **Boulder County Permits** - Boulder County related construction permits will be acquired prior to construction.
- **Colorado Department of Public Health and Environment (CDPHE)** - CDPHE Stormwater General Permit for Construction Activities and a CDPHE Construction Dewatering Permit will be acquired prior to construction.

PHOTOS OF EXISTING CONDITIONS



Prince Lake No. 1 dam embankment taken from spillway way looking along N. 111th Street. Embankment height to be increased by 1 foot and rubble embankment material to be replaced with standard riprap.



Staff pointing toward riprap at existing spillway. Spillway to be modernized and increased to 90-foot width. This area will also serve a one of the staging areas. N.111th Street visible on right side of photo.

Attachment A



(Left) Road side swale along toe of dam and adjacent to N. 111th Street. Riprap will be installed in swale and toe drain installed in vicinity of fence



(Above) Storm sewer inlet located along road side swale. Toe drain will connect into storm system at this location.



(Above) Bottom of recently-constructed drainage channel adjacent to N.111th St. PPDam embankment seen in background. Bare earth above silt fence is the planned location for the Turf Reinforcement Mat.

Attachment A



(Left) Bridge access to gate that opens outlet for discharging water from reservoir. New outlet works are planned for this location.



(Above) Downstream end of current outlet pipe to be replaced.



(Above) Ditch that conveys water to agriculture operations after leaving outlet. Planned staging area is located to the left of the ditch. Oil & gas facility seen on right.

Prince Lake No. 1 Dam Rehabilitation Project – Site Plan



PRINCE LAKE NO. 1 CONSTRUCTION PLANS BOULDER COUNTY, COLORADO

DAM I.D.: 060209, WATER DIVISION 1, WATER DISTRICT 6

DECEMBER, 2022

OWNER: BOULDER COUNTY PARKS AND OPEN SPACE DEPARTMENT
5201 ST. VRAIN ROAD
LONGMONT, CO 80503
(303) 413-7077

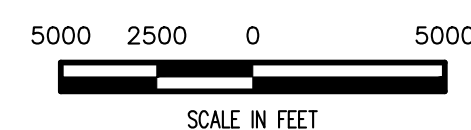
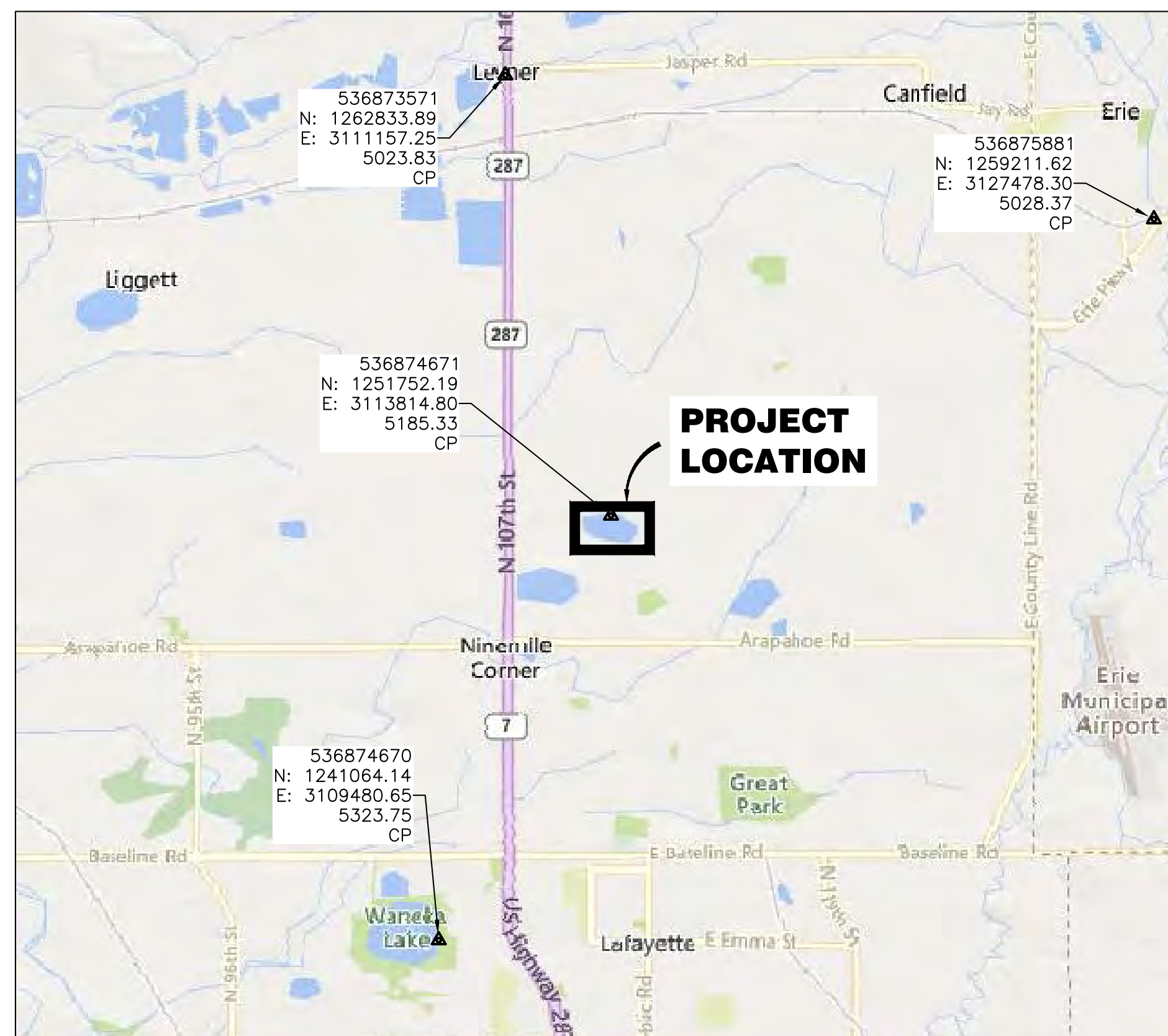
ENGINEER: APPLGATE GROUP, INC.
1490 W. 121st AVENUE
SUITE 100
DENVER, CO 80234
(303) 452-6611

GEOTECH: CESARE, INC.
7108 S. ALTON WAY
CENTENNIAL, CO 80112
(303) 220-0300

SURVEYOR: ASCENT GEOMATICS SOLUTIONS
8620 WOLFF CT
WESTMINSTER, CO 80031
(303) 928-7128

VICINITY MAP

SCALE 1" = 3000'



These plans have been prepared by me or under my direct supervision.

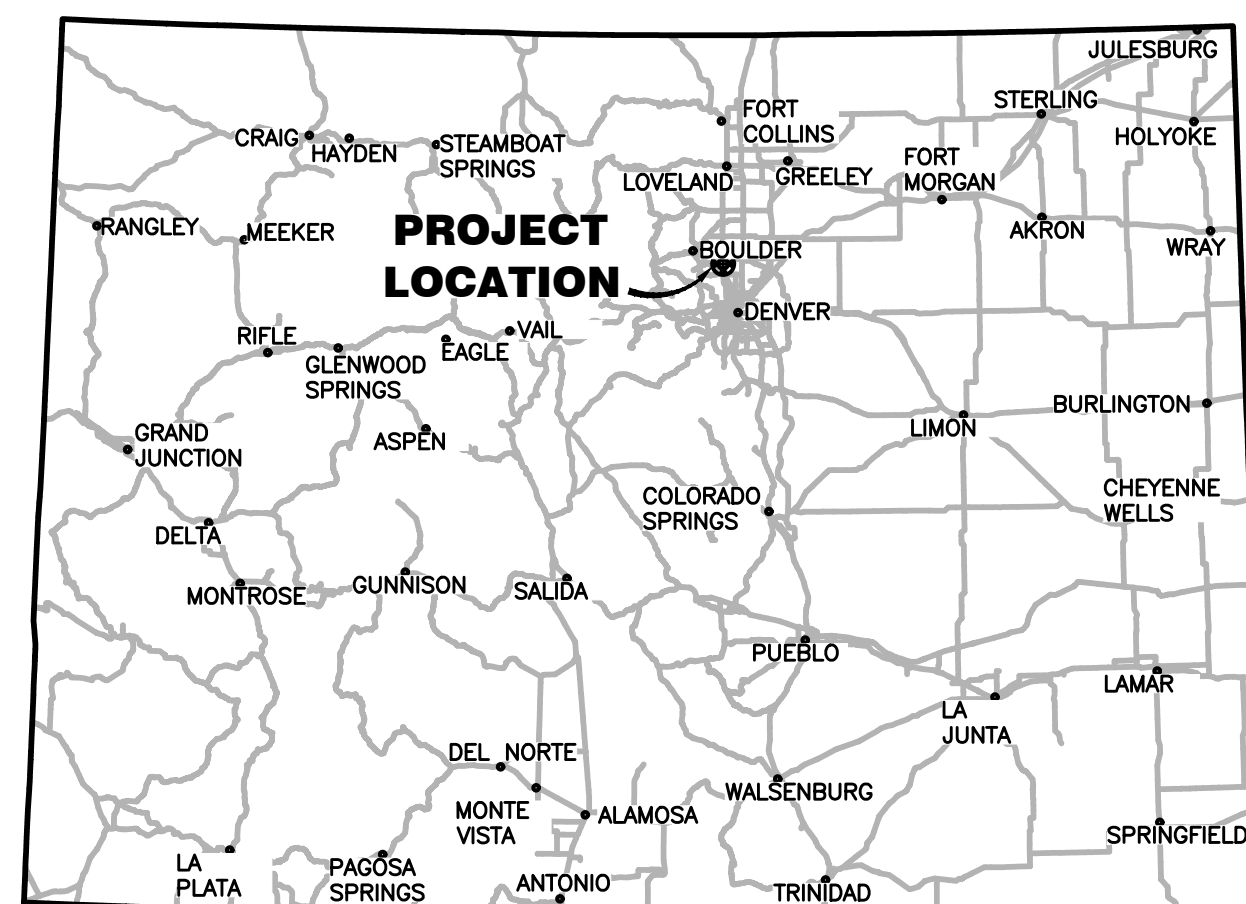
Steven A. Smith
Colorado P.E. No. 43364

Approved on the ____ day of _____, 20____
State Engineer

By: _____
John Hunyadi, Chief, Colorado Dam Safety
Colorado P.E. 42709

These plans represent the AS-CONSTRUCTED conditions of _____ Dam to the best of my knowledge and judgment, based in part on information furnished by others, as of the ____ day of _____, 20__.

Steven A. Smith
Colorado P.E. No. 43364



LOCATION MAP

NOT TO SCALE



**100% DESIGN
FOR
BCPOS REVIEW**

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**PRINCE LAKE No 1 DAM
REHABILITATION
COVER SHEET**

**BOULDER COUNTY PARKS AND
OPEN SPACE DEPARTMENT**

NO	DATE	BY	CHK'D	DESCRIPTION

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 Job No: 21-129
 Drawn: LD/TH
 Design: SS
 Checked: TD
 Scale: As Noted

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Of: **21**

Filing No. **C-**

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 BORING LOCATION See Boring Location Plan
 DRILLING COMPANY/RJG Odell Drilling/CME-55
 DRILLING METHOD 7.5in. Diameter HSA
 HAMMER SYSTEM Automatic Hammer

PROJECT NUMBER 21.3065
 BORING ELEVATION 5185ft.
 CESARE REP. J. Edwards
 DATE STARTED 10/13/2021
 DATE COMPLETED 10/13/2021

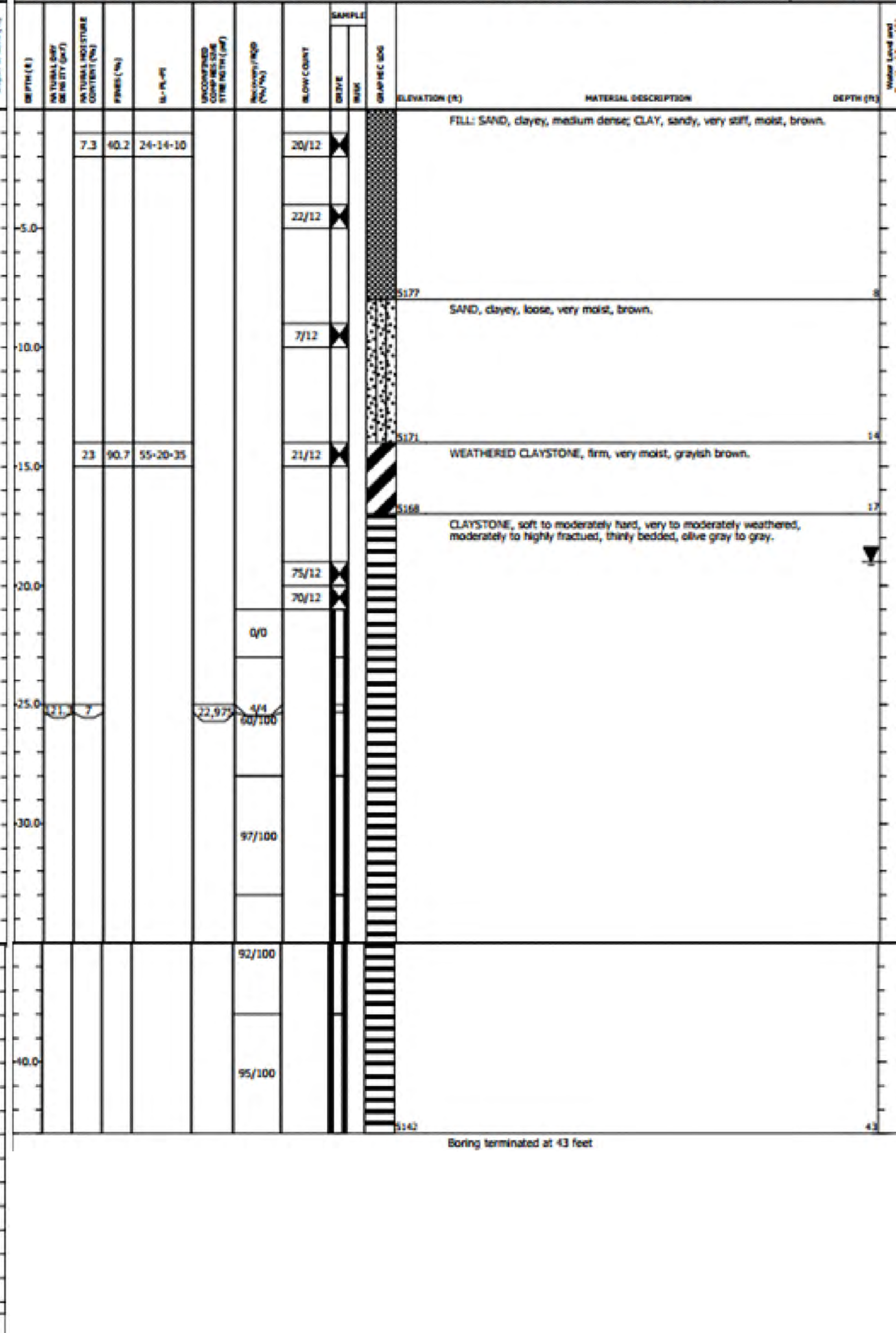
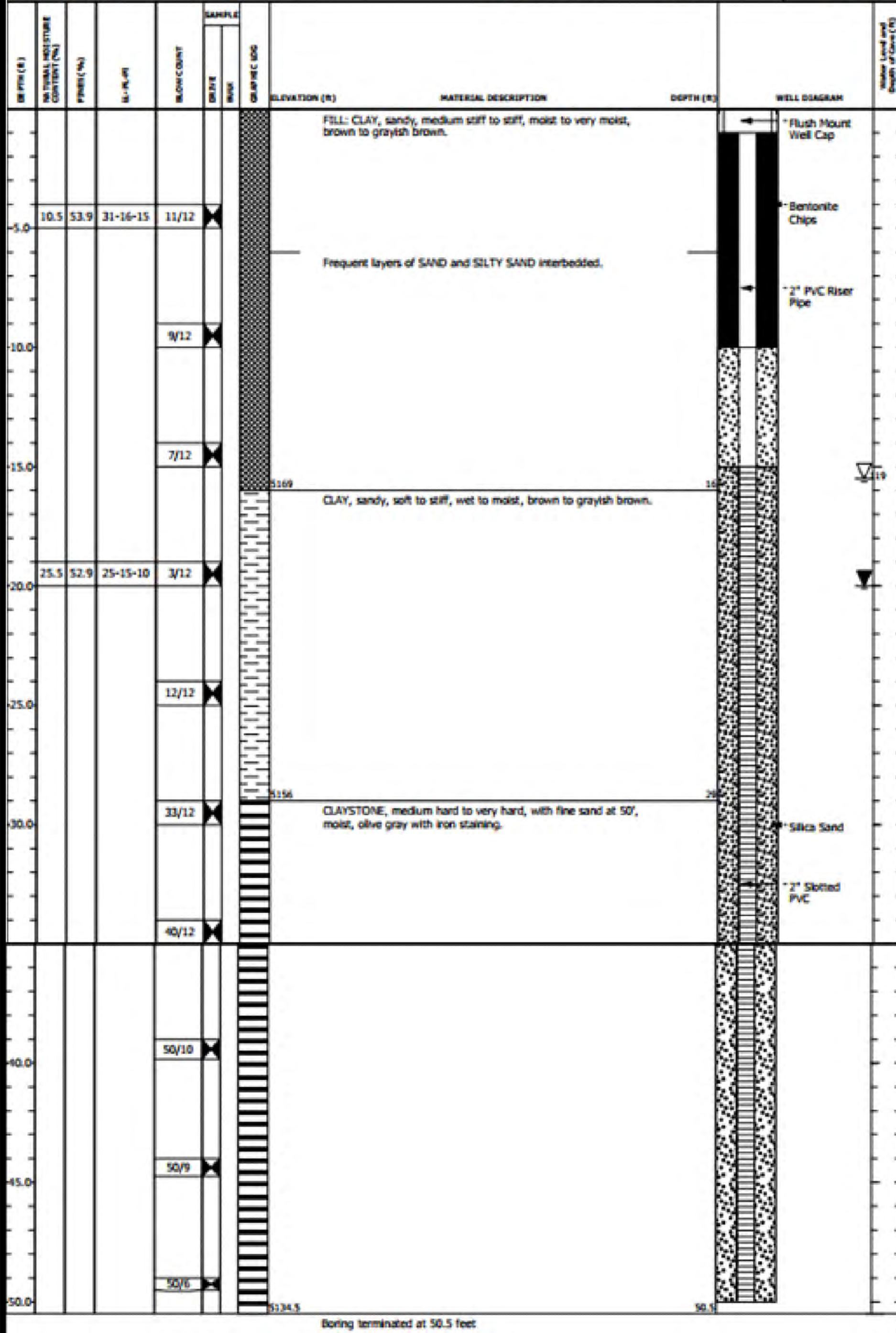
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 Page 1 of 2

PROJECT NAME Prince Lake No. 1
 BORING LOCATION See Boring Location Plan
 DRILLING COMPANY/RJG Dakota Drilling/Diedrich 120
 DRILLING METHOD 7.5in. Diameter HSA
 HAMMER SYSTEM Rope & Cathead

PROJECT NUMBER 21.3065
 BORING ELEVATION 5185ft.
 CESARE REP. J. Edwards
 DATE STARTED 10/25/2021
 DATE COMPLETED 10/25/2021

B-5
 Page 1 of 2

LEGEND
 WATER LEVEL AT TIME OF DRILLING
 WATER LEVEL # DAYS AFTER DRILLING
 DEPTH OF CAVE # DAYS AFTER DRILLING
 DEPTH OF REFUSAL
 MODIFIED CALIFORNIA SAMPLER
 ROCK CORE
 SPLIT SPOON



GRAPHIC DESCRIPTION:
 FILL as described in material description
 SAND, silty (SM) or SAND, clayey (SC) or SAND clayey to silty (SC to SM)
 CLAY, sandy (CL)
 SAND, silty, clayey (SC-SM)
 WEATHERED CLAYSTONE
 INTERBEDDED CLAYSTONE and SANDSTONE
 SANDSTONE
 CLAYSTONE

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PRINCE LAKE No 1 DAM REHABILITATION
GEOTECHNICAL DATA

BOULDER COUNTY PARKS AND OPEN SPACE DEPARTMENT

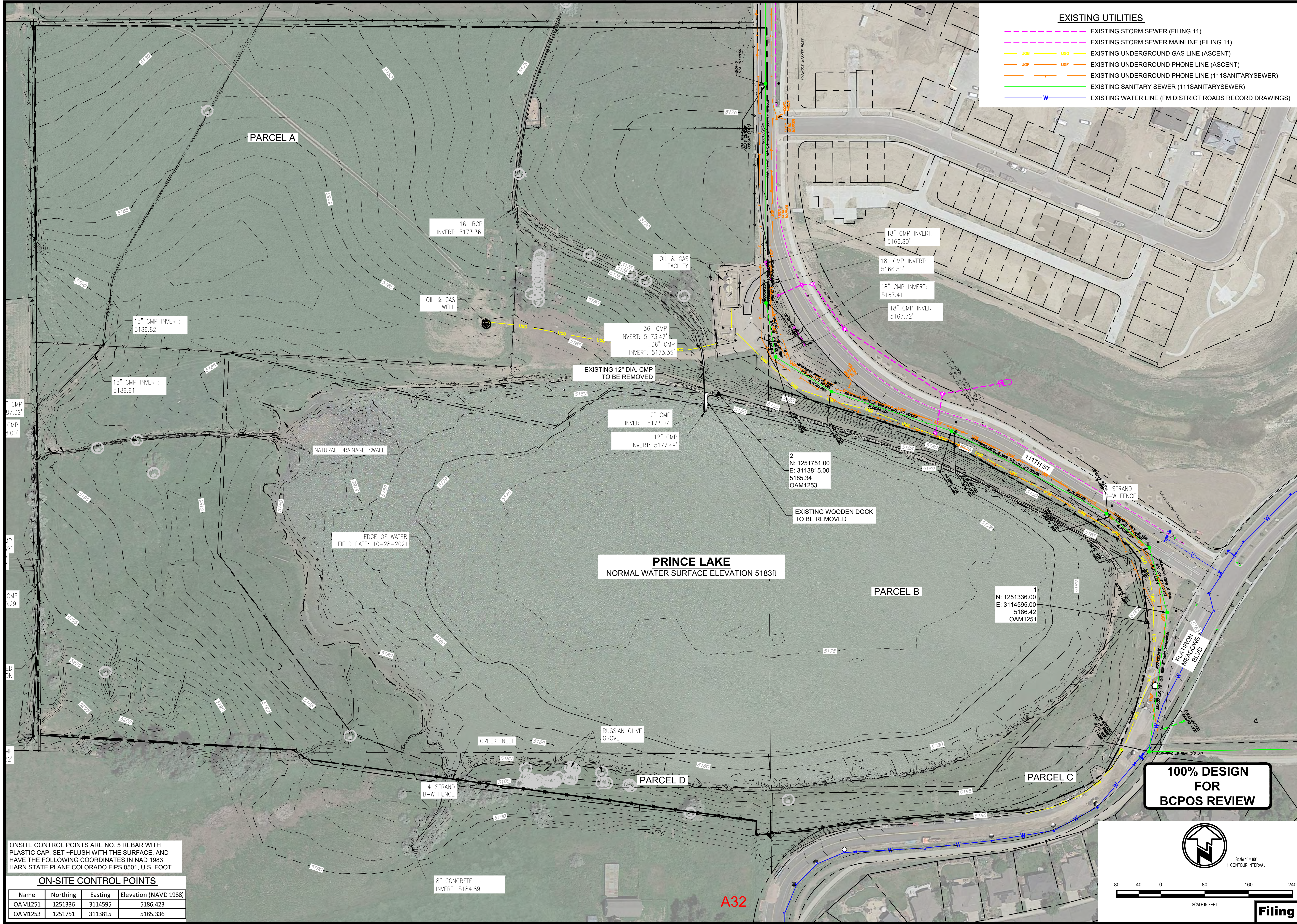
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Sheet: **5** of **21**

Filing No. **C-**



EXISTING UTILITIES

- EXISTING STORM SEWER (FILING 11)
- EXISTING STORM SEWER MAINLINE (FILING 11)
- EXISTING UNDERGROUND GAS LINE (ASCENT)
- EXISTING UNDERGROUND PHONE LINE (ASCENT)
- EXISTING UNDERGROUND PHONE LINE (111 SANITARYSEWER)
- EXISTING SANITARY SEWER (111 SANITARYSEWER)
- EXISTING WATER LINE (FM DISTRICT ROADS RECORD DRAWINGS)

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PRINCE LAKE No 1 DAM REHABILITATION
EXISTING SITE PLAN

BOULDER COUNTY PARKS AND OPEN SPACE DEPARTMENT

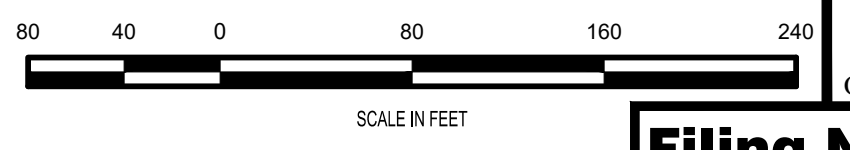
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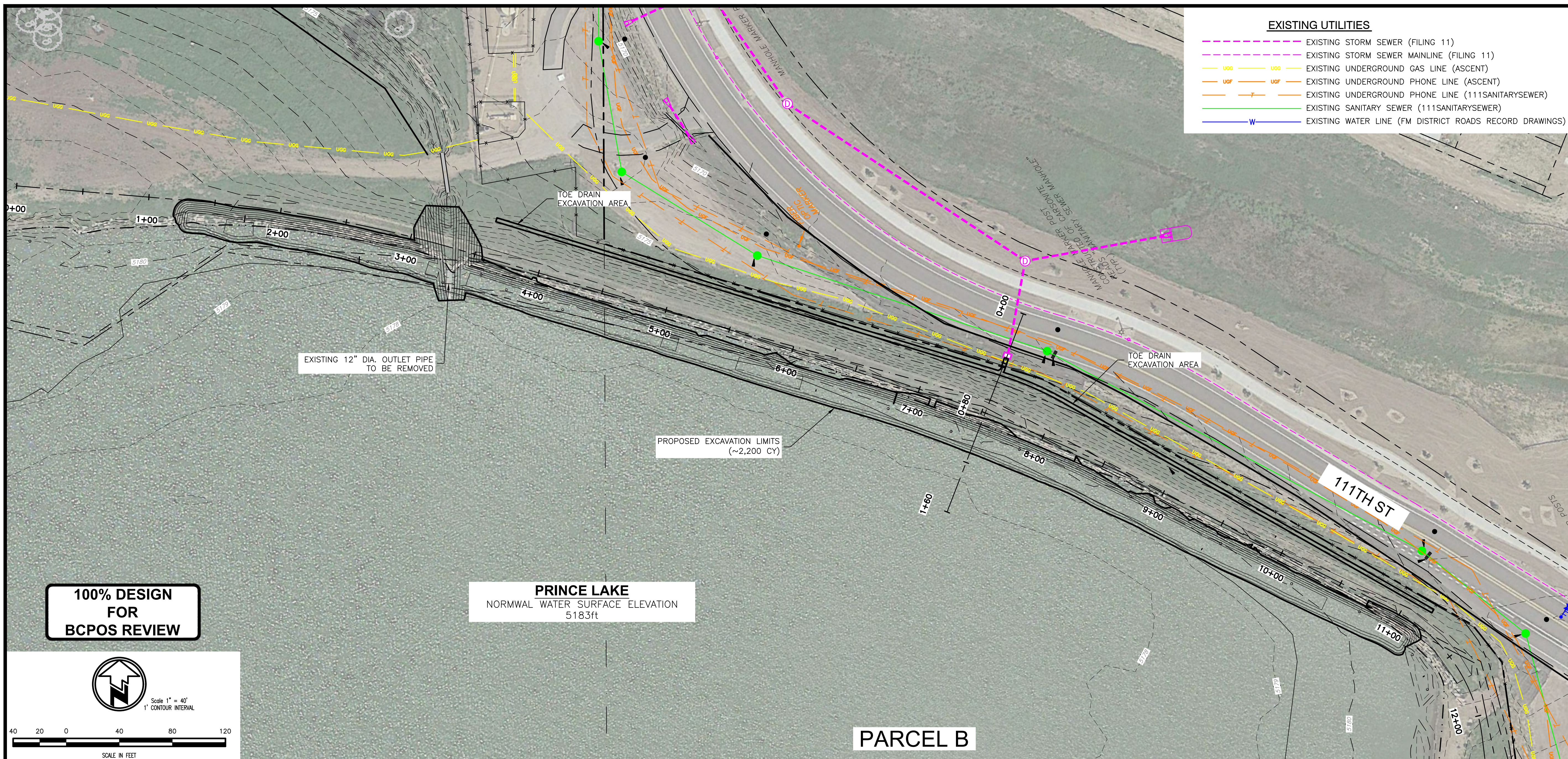
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ON-SITE CONTROL POINTS

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OAM1253	1251751	3113815	5185.336

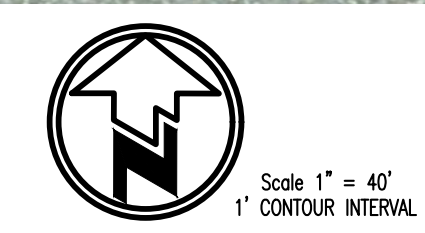
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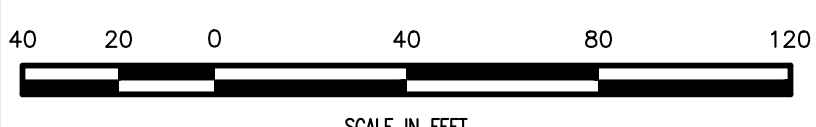


- EXISTING UTILITIES**
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 - EXISTING STORM SEWER MAINLINE (FILING 11)
 - UGG EXISTING UNDERGROUND GAS LINE (ASCENT)
 - UGF EXISTING UNDERGROUND PHONE LINE (ASCENT)
 - EXISTING UNDERGROUND PHONE LINE (111SANITARYSEWER)
 - EXISTING SANITARY SEWER (111SANITARYSEWER)
 - W EXISTING WATER LINE (FM DISTRICT ROADS RECORD DRAWINGS)

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Scale 1" = 40'
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PRINCE LAKE
NORMWAL WATER SURFACE ELEVATION
5183ft

PARCEL B

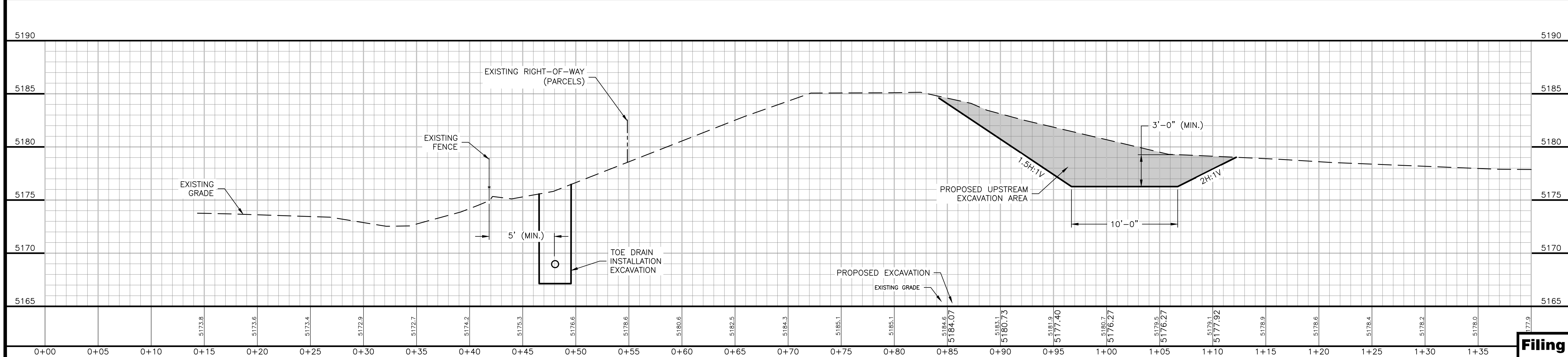
Applegate Group, Inc.
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PRINCE LAKE No 1 DAM REHABILITATION
EXCAVATION PLAN

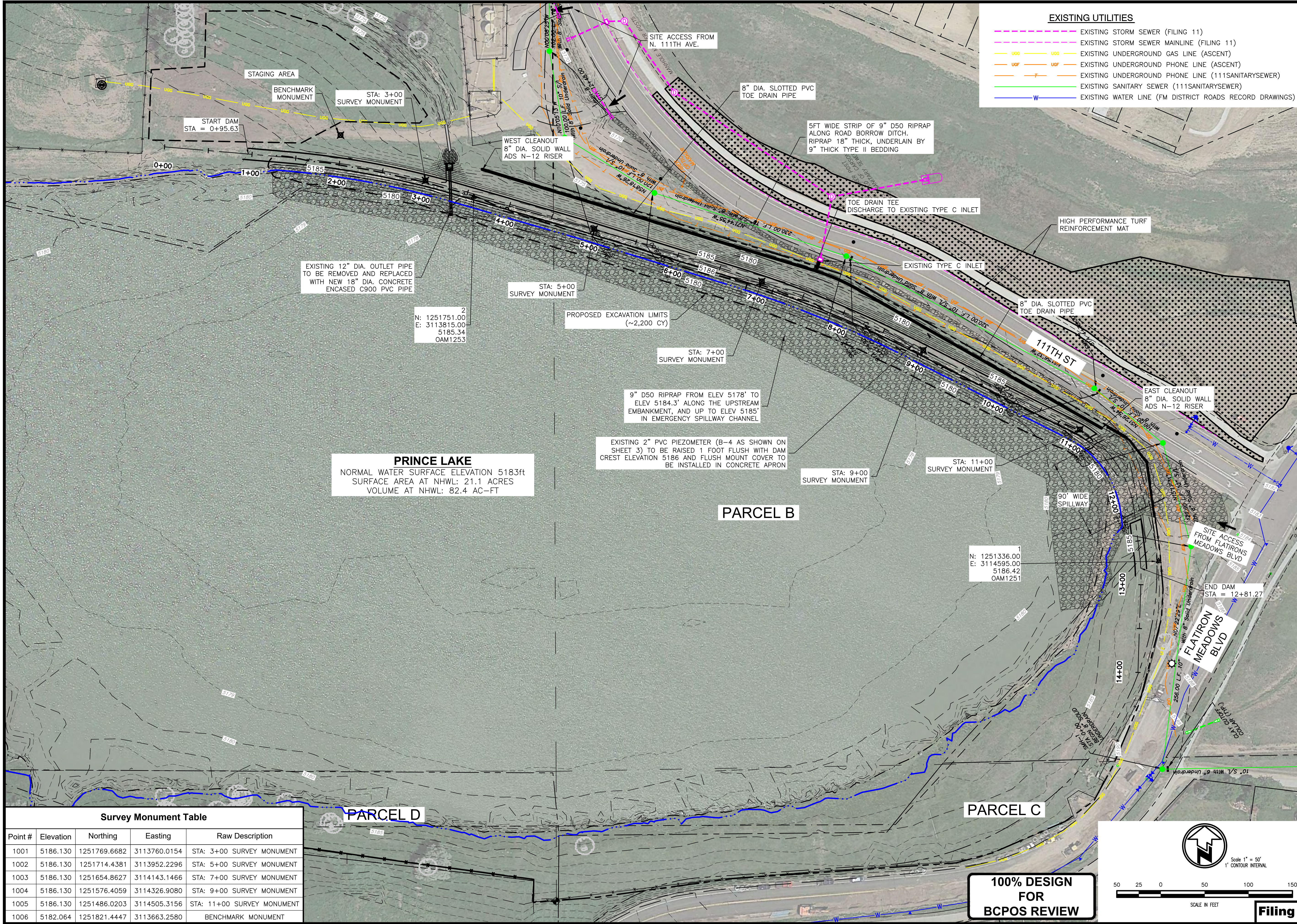
BOULDER COUNTY PARKS AND OPEN SPACE DEPARTMENT

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- EXISTING SANITARY SEWER (111SANITARYSEWER)
- EXISTING WATER LINE (FM DISTRICT ROADS RECORD DRAWINGS)

PRINCE LAKE
 NORMAL WATER SURFACE ELEVATION 5183ft
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 VOLUME AT NHWL: 82.4 AC-FT

PARCEL B

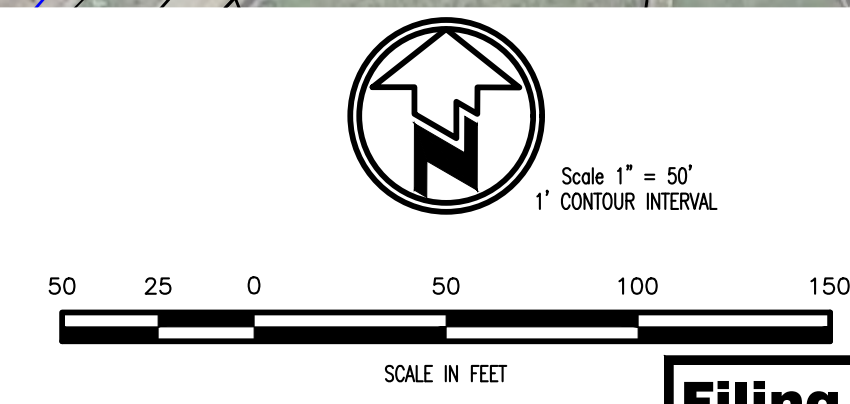
PARCEL C

PARCEL D

Survey Monument Table

Point #	Elevation	Northing	Easting	Raw Description
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1002	5186.130	1251714.4381	3113952.2296	STA: 5+00 SURVEY MONUMENT
1003	5186.130	1251654.8627	3114143.1466	STA: 7+00 SURVEY MONUMENT
1004	5186.130	1251576.4059	3114326.9080	STA: 9+00 SURVEY MONUMENT
1005	5186.130	1251486.0203	3114505.3156	STA: 11+00 SURVEY MONUMENT
1006	5182.064	1251821.4447	3113663.2580	BENCHMARK MONUMENT

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PRINCE LAKE NO 1 DAM REHABILITATION
PROPOSED SITE PLAN

BOULDER COUNTY PARKS AND OPEN SPACE DEPARTMENT

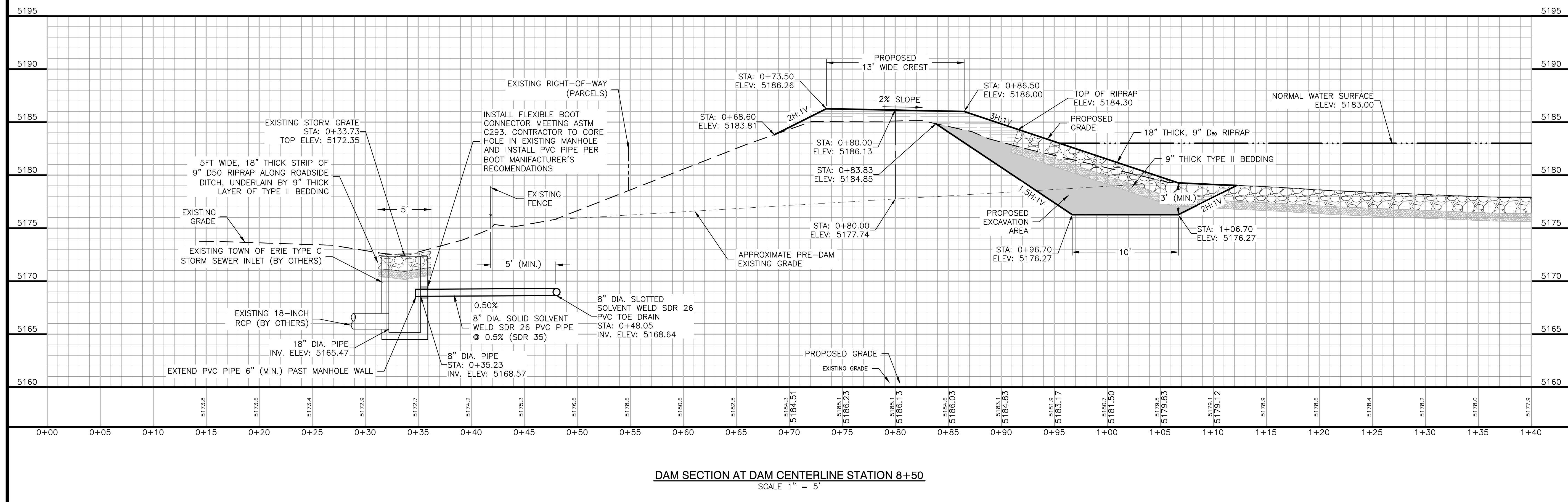
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PRINCE LAKE No 1 DAM REHABILITATION
MAXIMUM DAM SECTION

BOULDER COUNTY PARKS AND OPEN SPACE DEPARTMENT



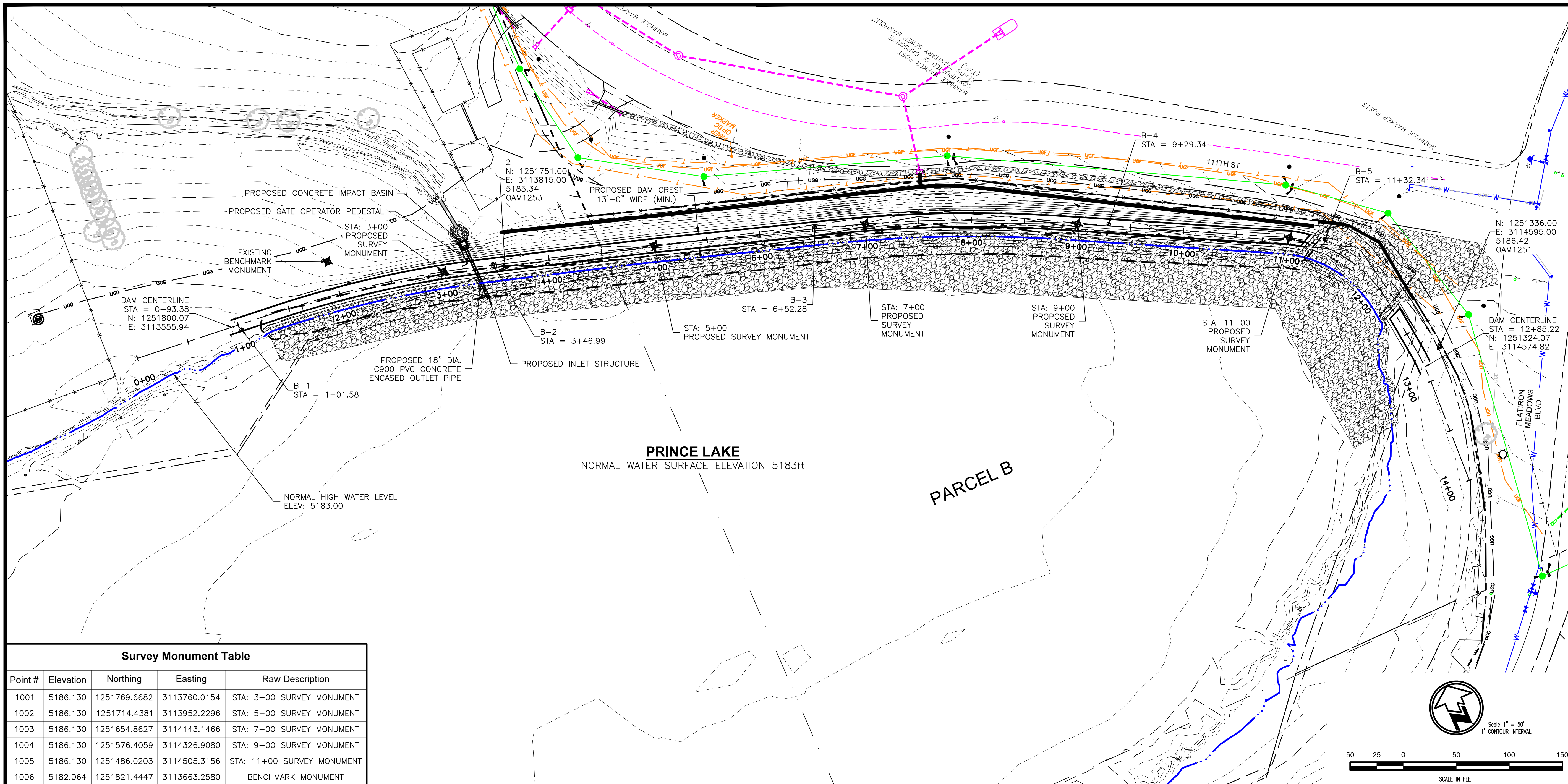
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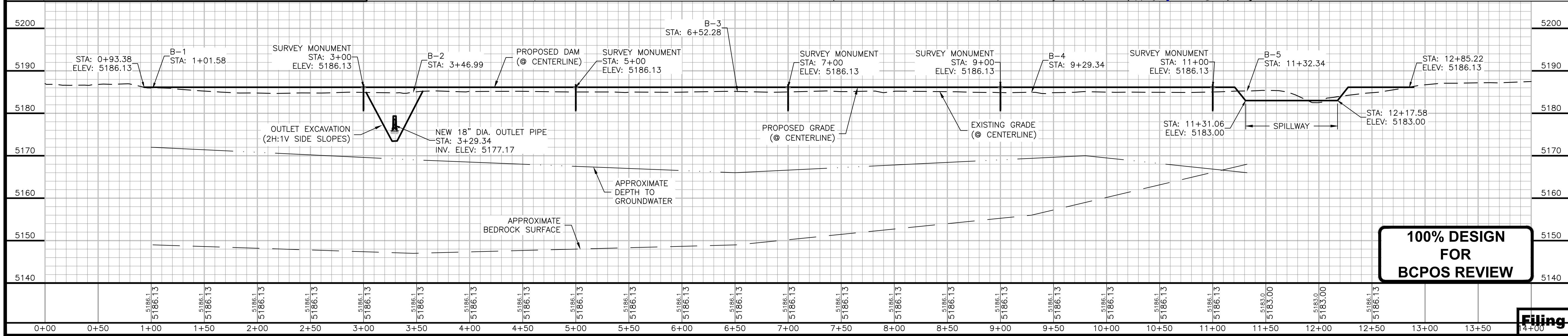
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Survey Monument Table

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1002	5186.130	1251714.4381	3113952.2296	STA: 5+00 SURVEY MONUMENT
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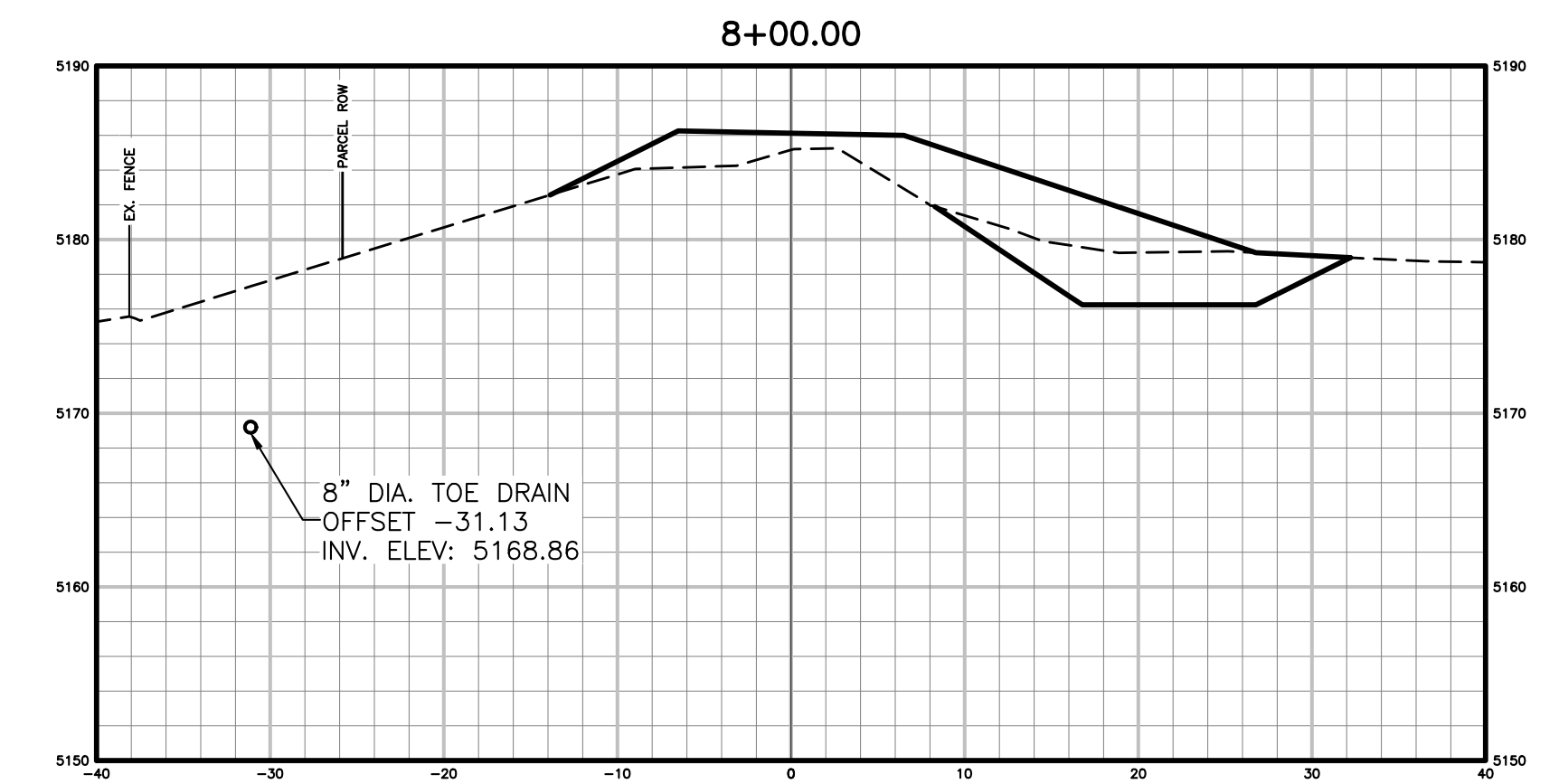
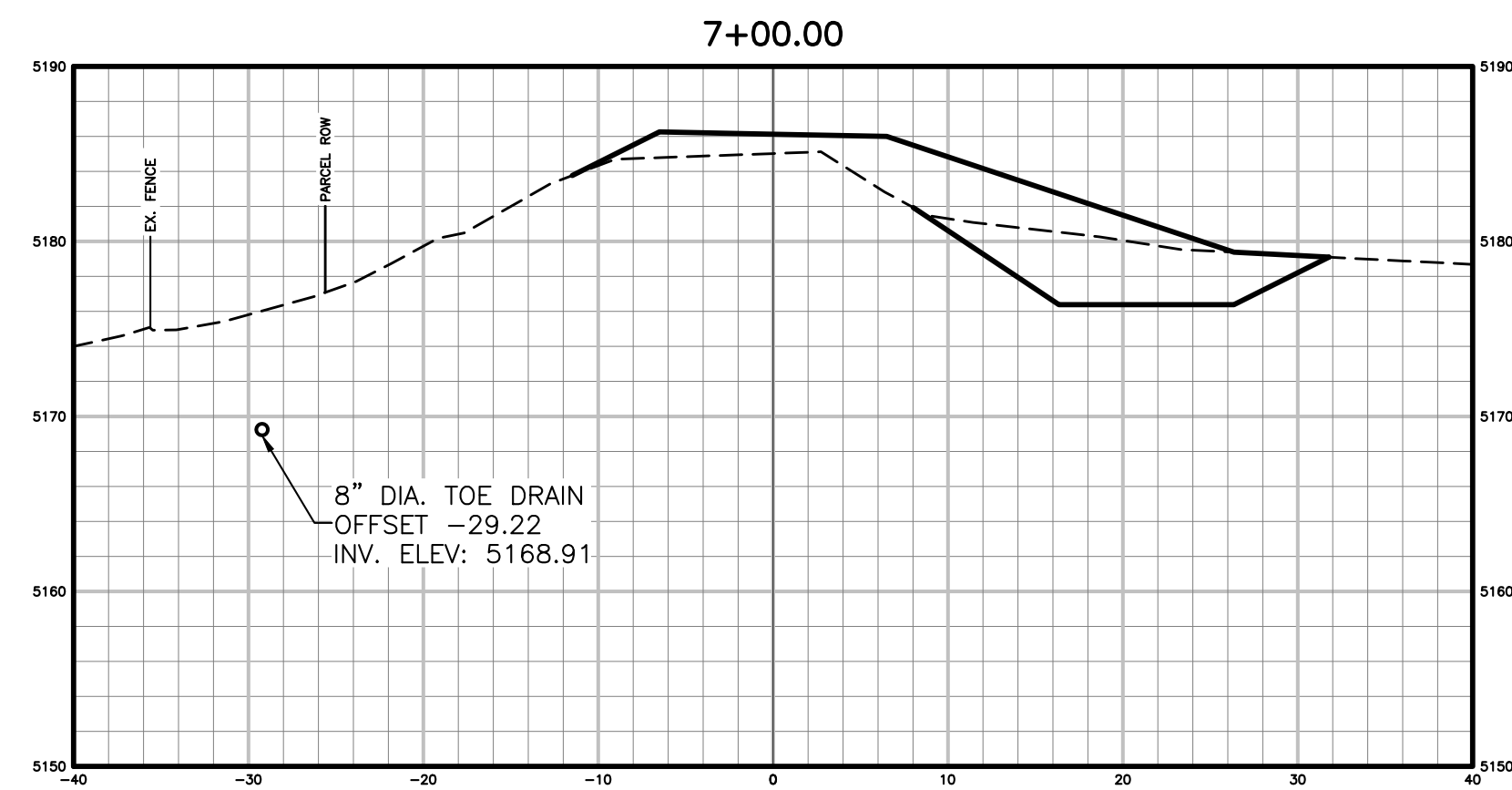
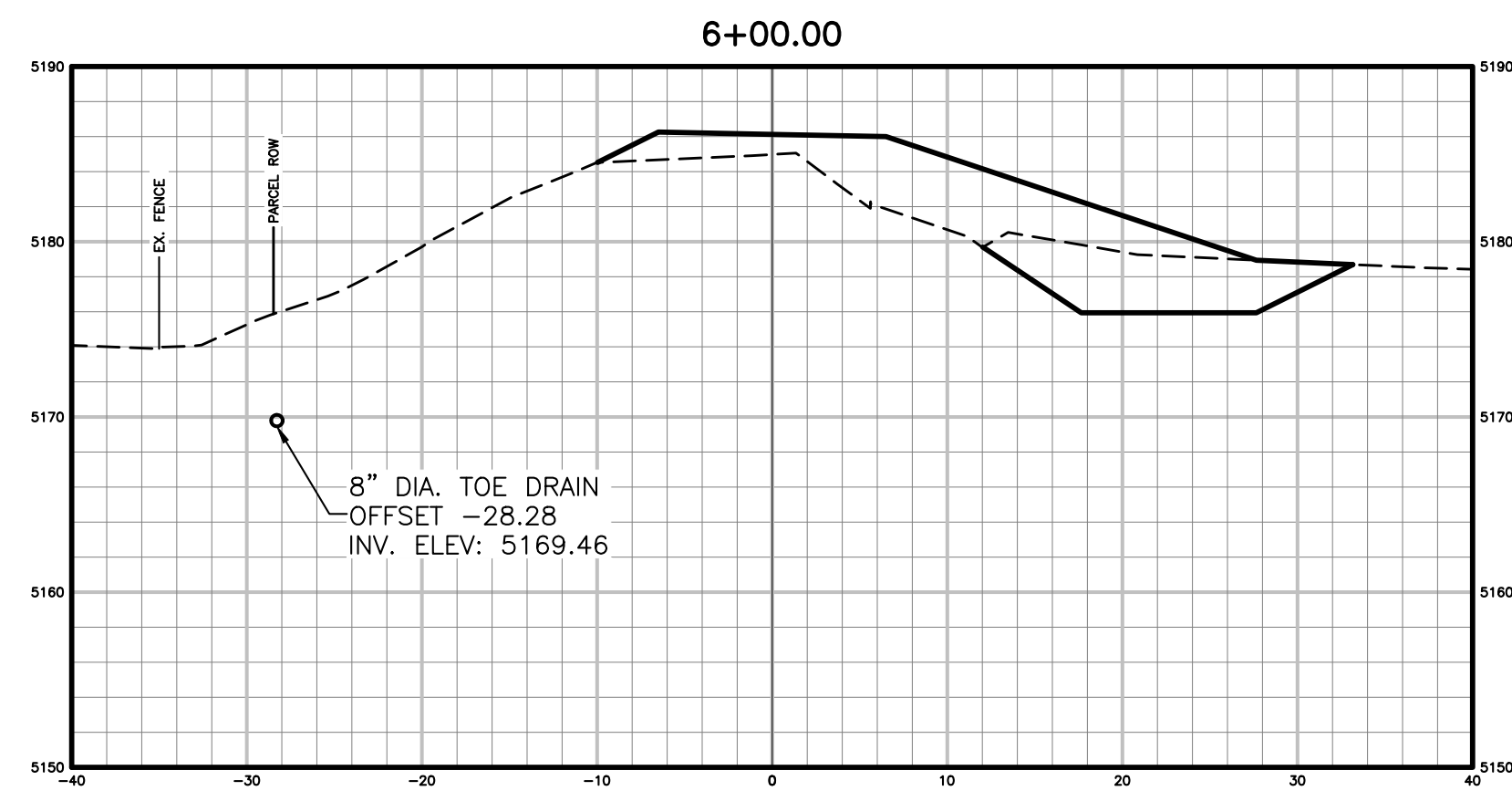
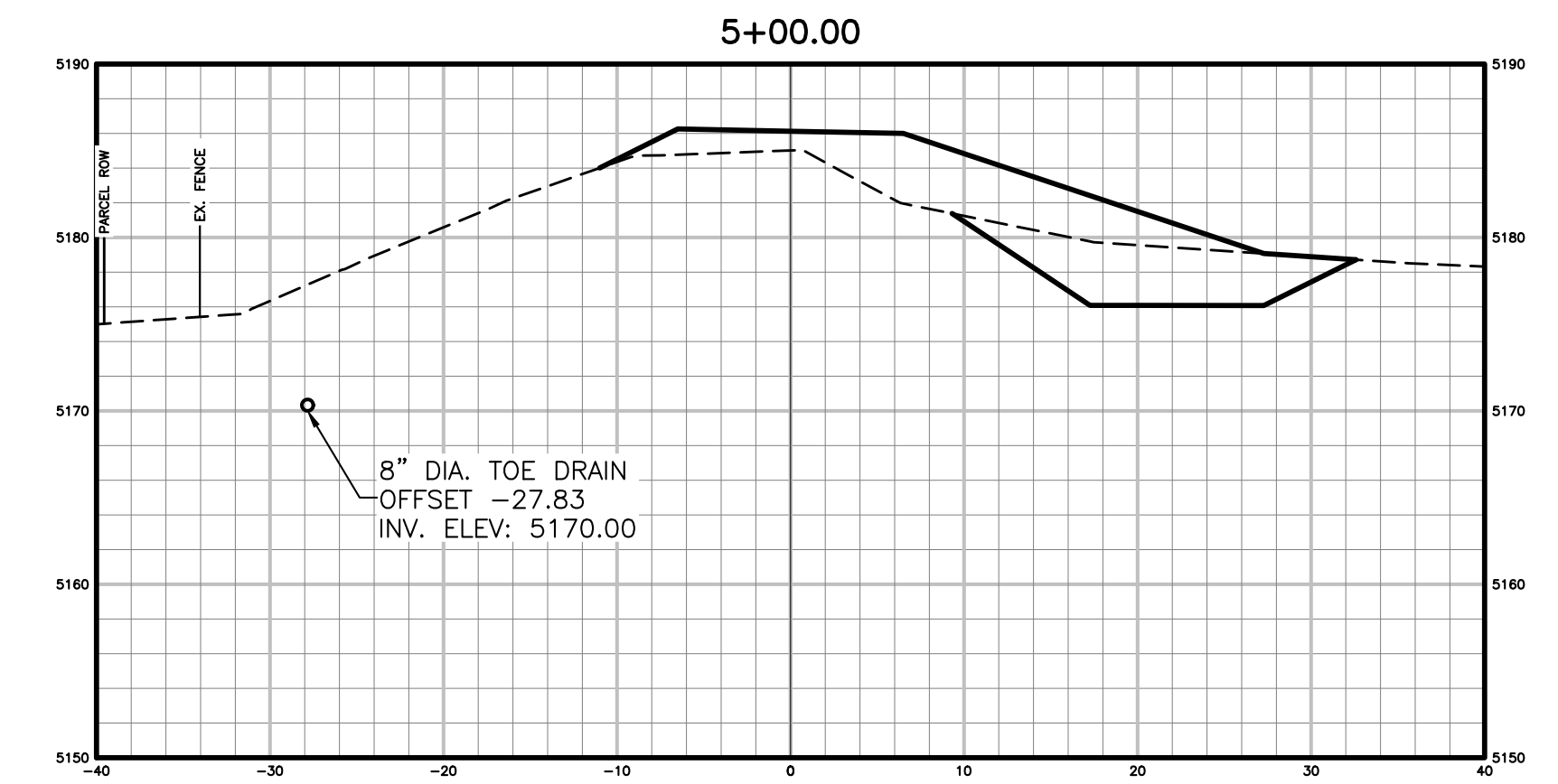
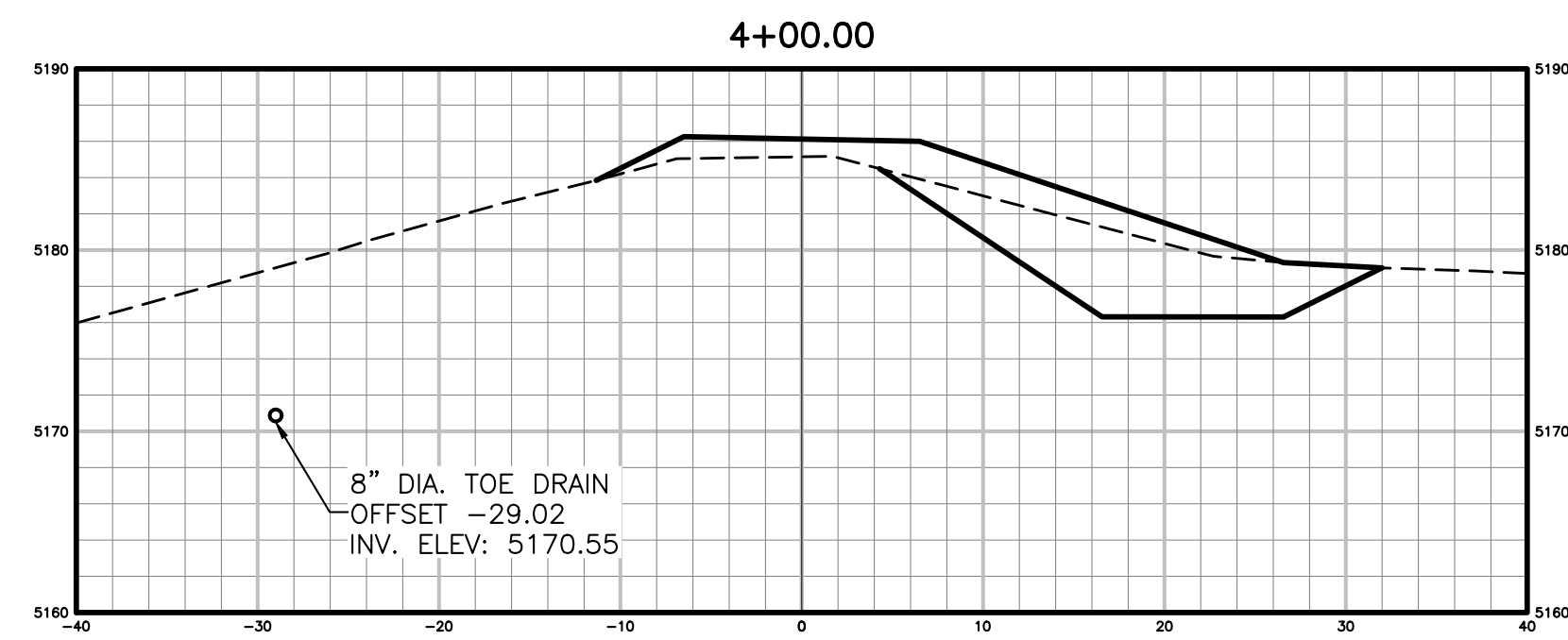
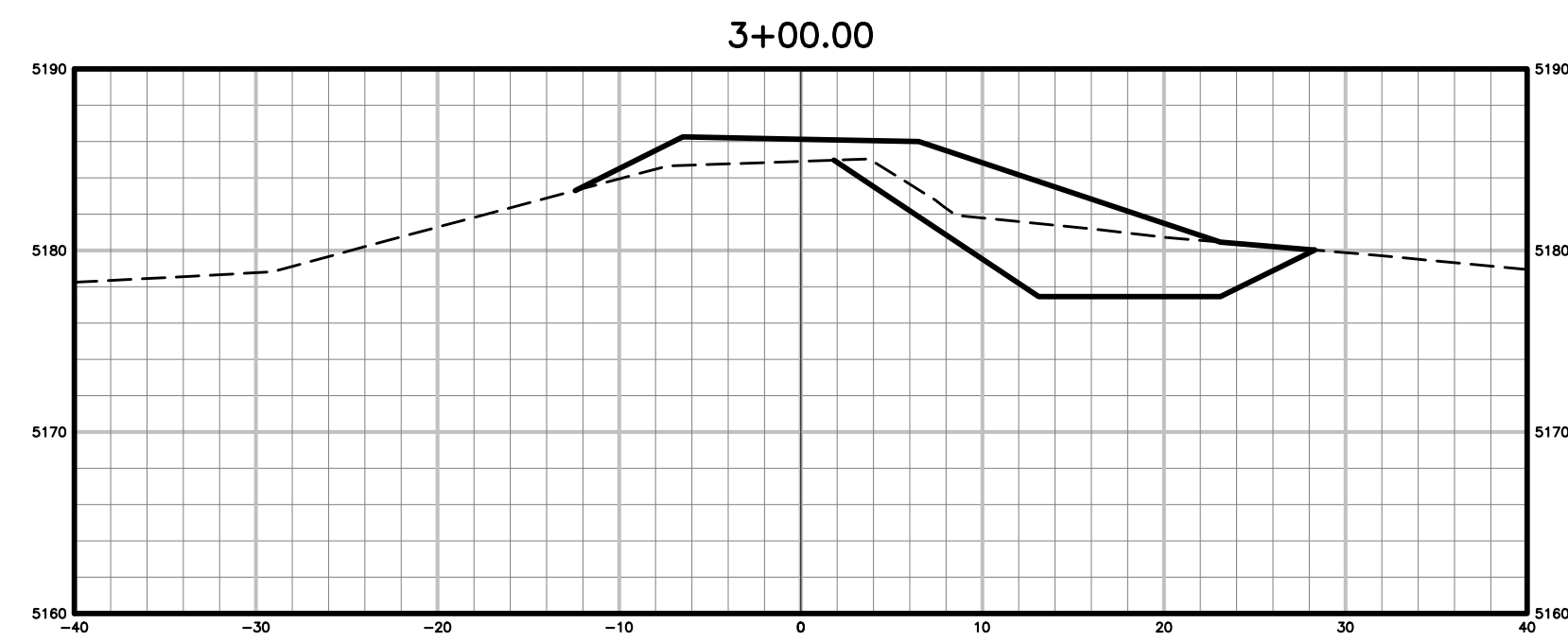
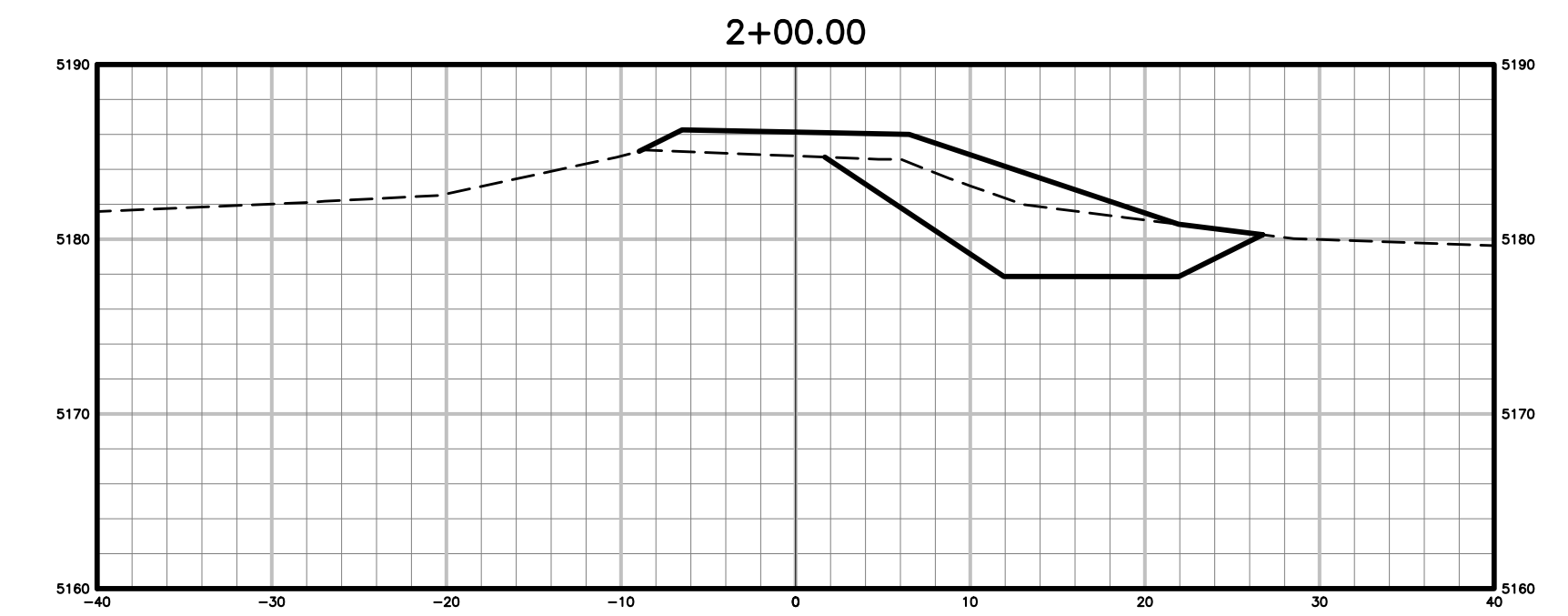
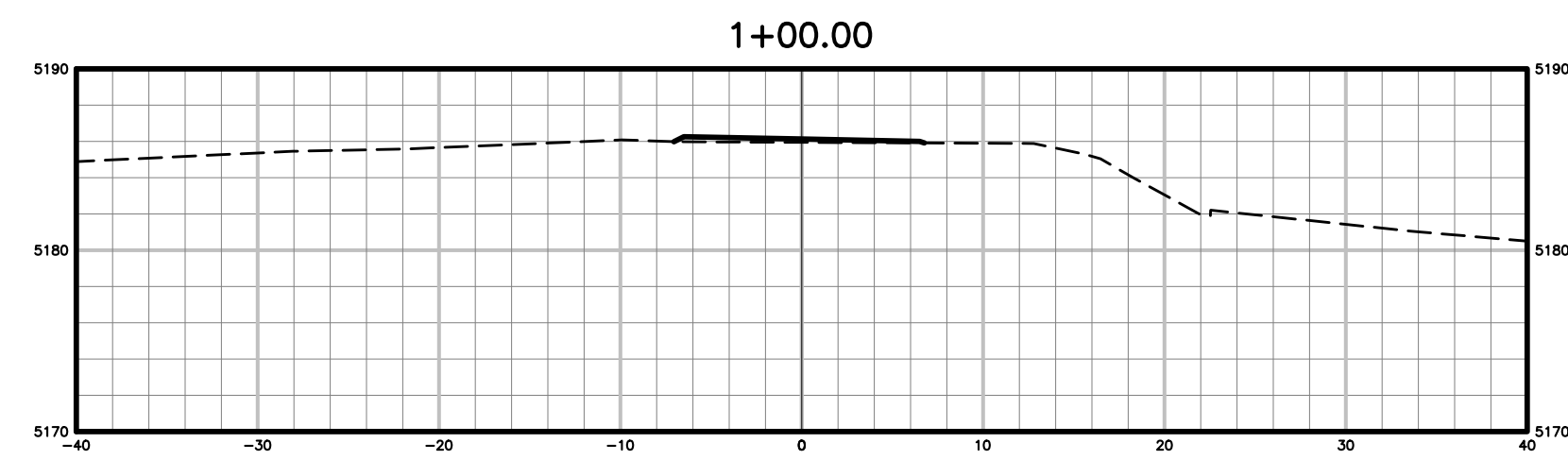
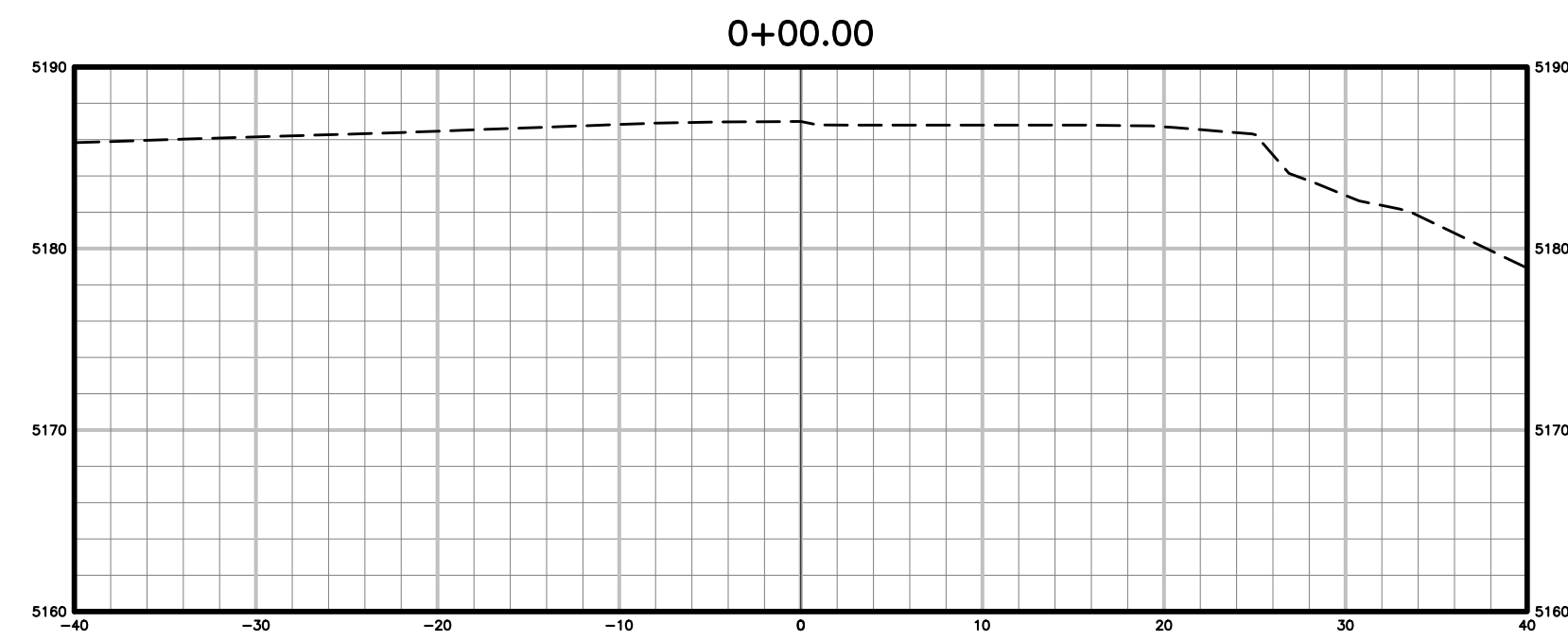
PRINCE LAKE No 1 DAM REHABILITATION
DAM PLAN AND PROFILE

BOULDER COUNTY PARKS AND OPEN SPACE DEPARTMENT

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 Job No: 21-129
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PRINCE LAKE No 1 DAM REHABILITATION
DAM CROSS-SECTIONS 1

BOULDER COUNTY PARKS AND OPEN SPACE DEPARTMENT

NO	DATE	BY	CHK'D	DESCRIPTION

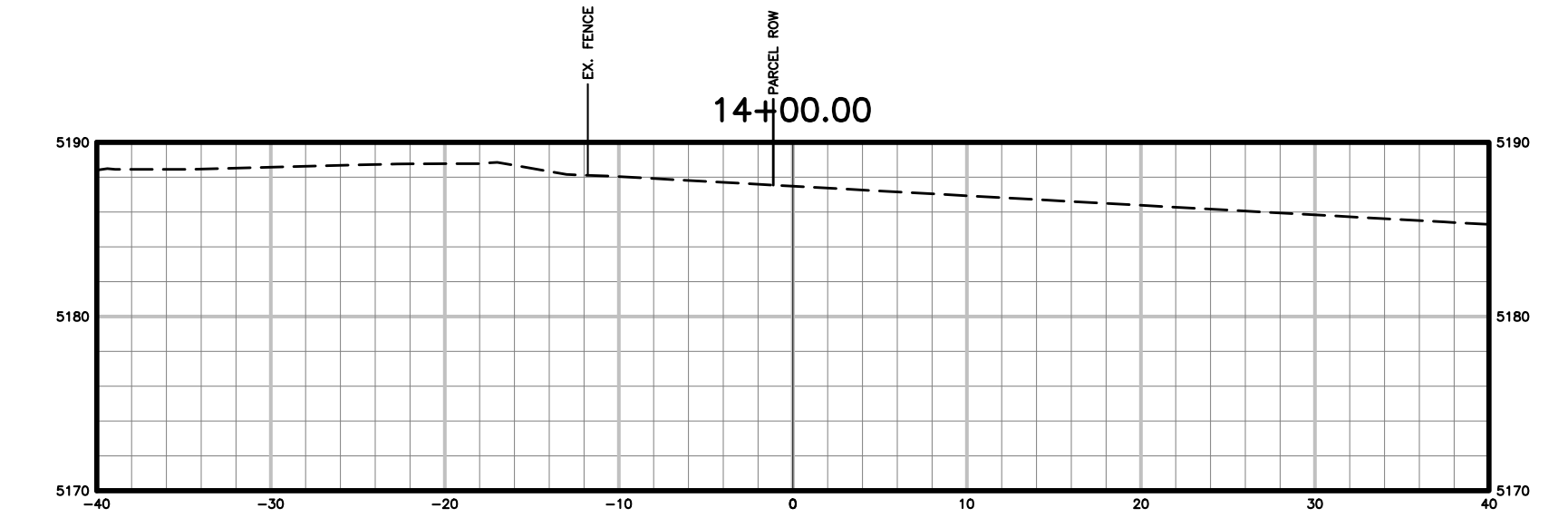
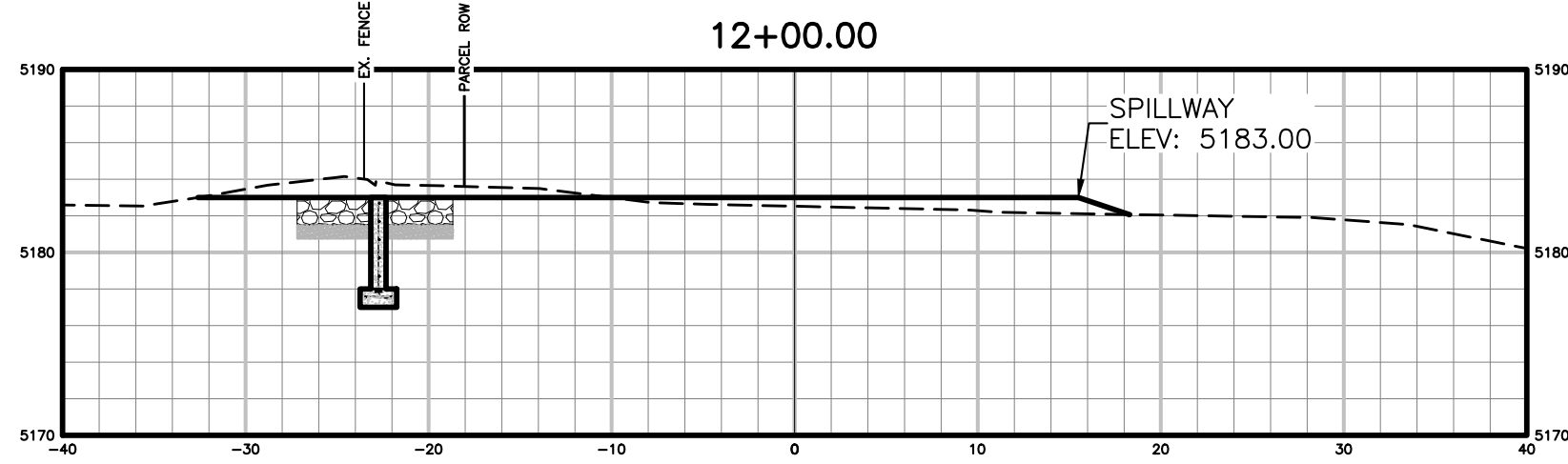
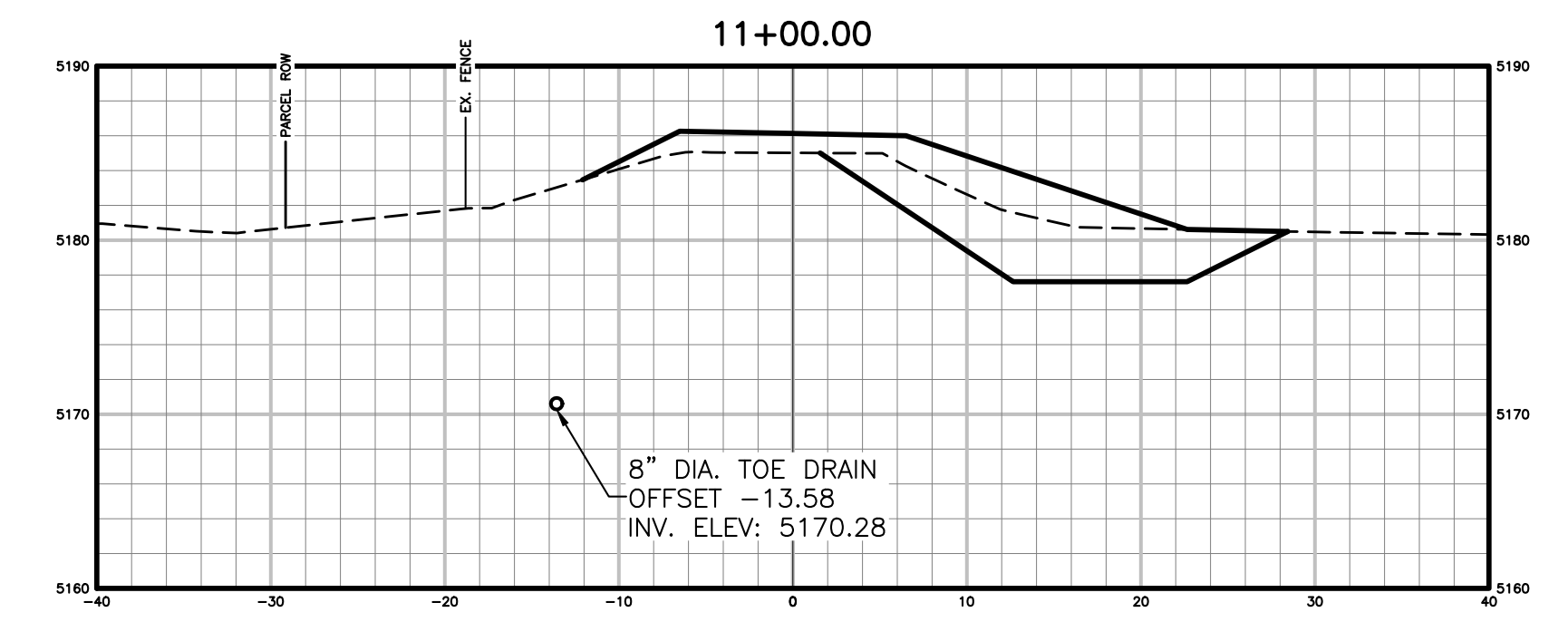
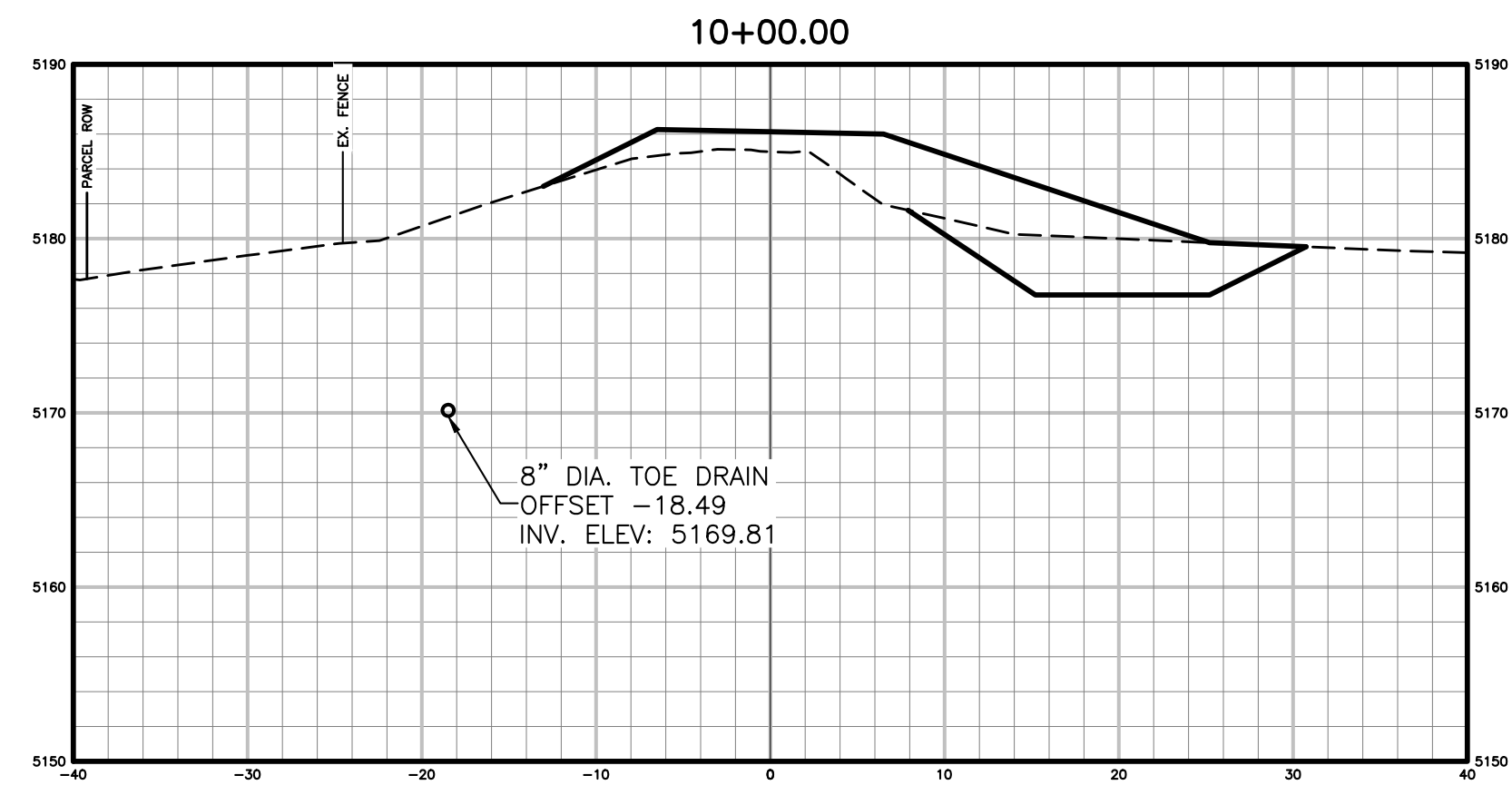
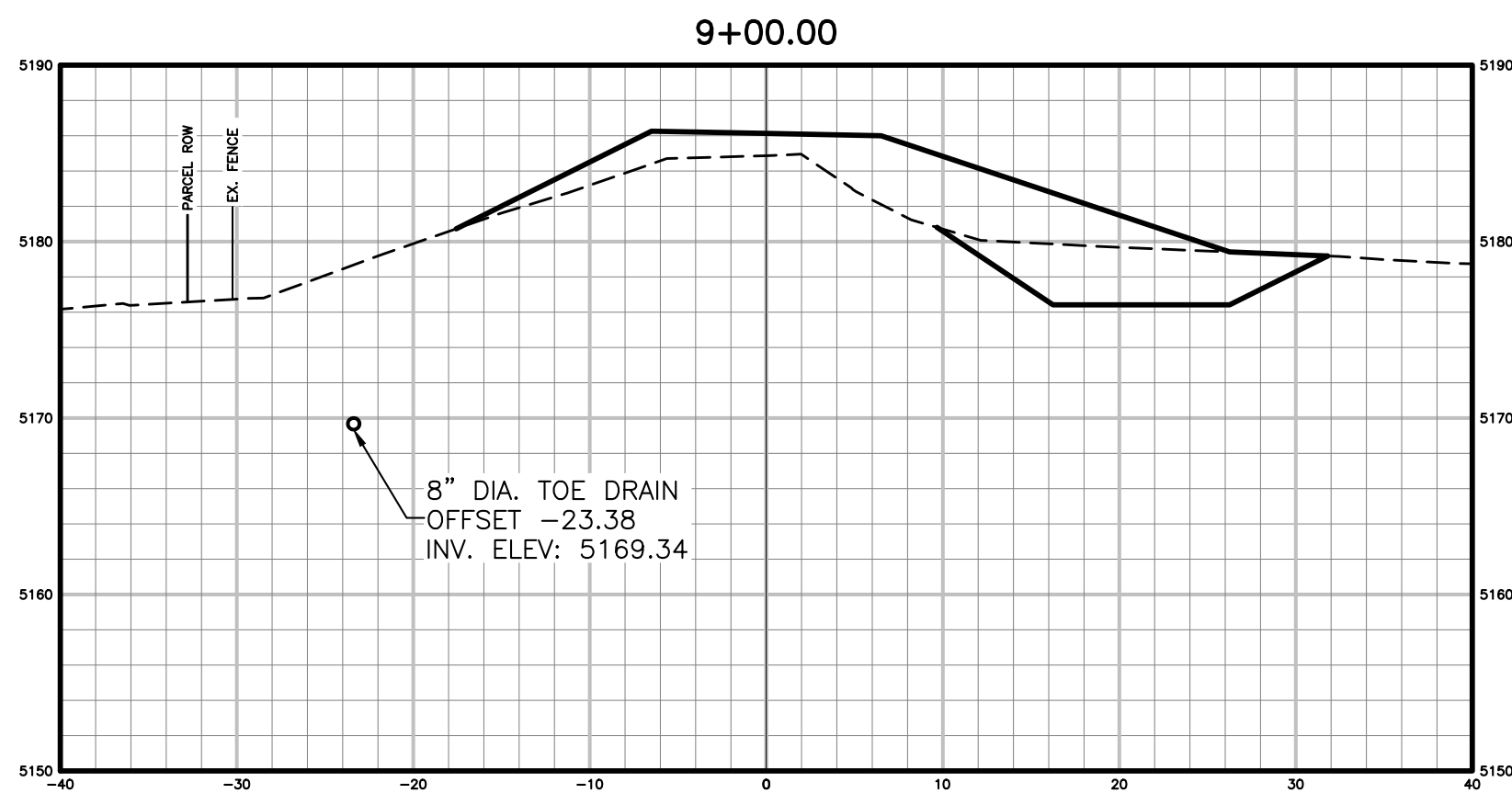
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Job No: 21-129
Drawn: LD/TH
Design: SS
Checked: TD
Scale: 1" = 10'

100% DESIGN FOR BCPOS REVIEW

Sheet: **11**
Of: **21**

Filing No. **C-**

Plot Date: 12/22/22-314pm; Plotted by: mtd; Drawing Path: N:\21-129-Prince Lake No 2 Dam\Drawings\Plan Set\Drawing Name\Prince Dam Cross-Sections Exhibit.dwg



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BCPOS REVIEW

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**PRINCE LAKE No 1 DAM
REHABILITATION
DAM CROSS-SECTIONS 2**

**BOULDER COUNTY PARKS AND
OPEN SPACE DEPARTMENT**

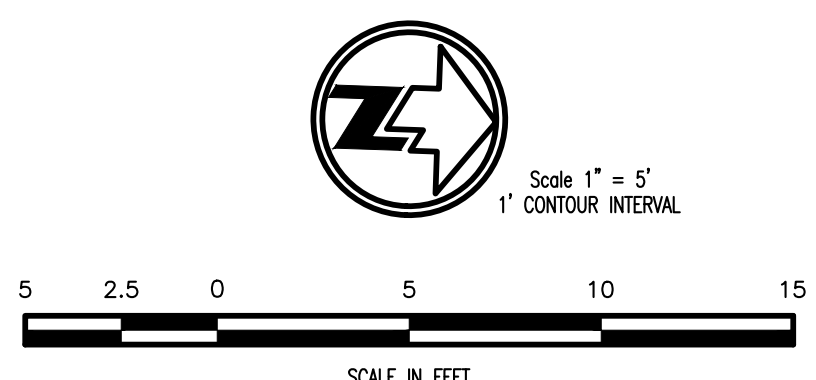
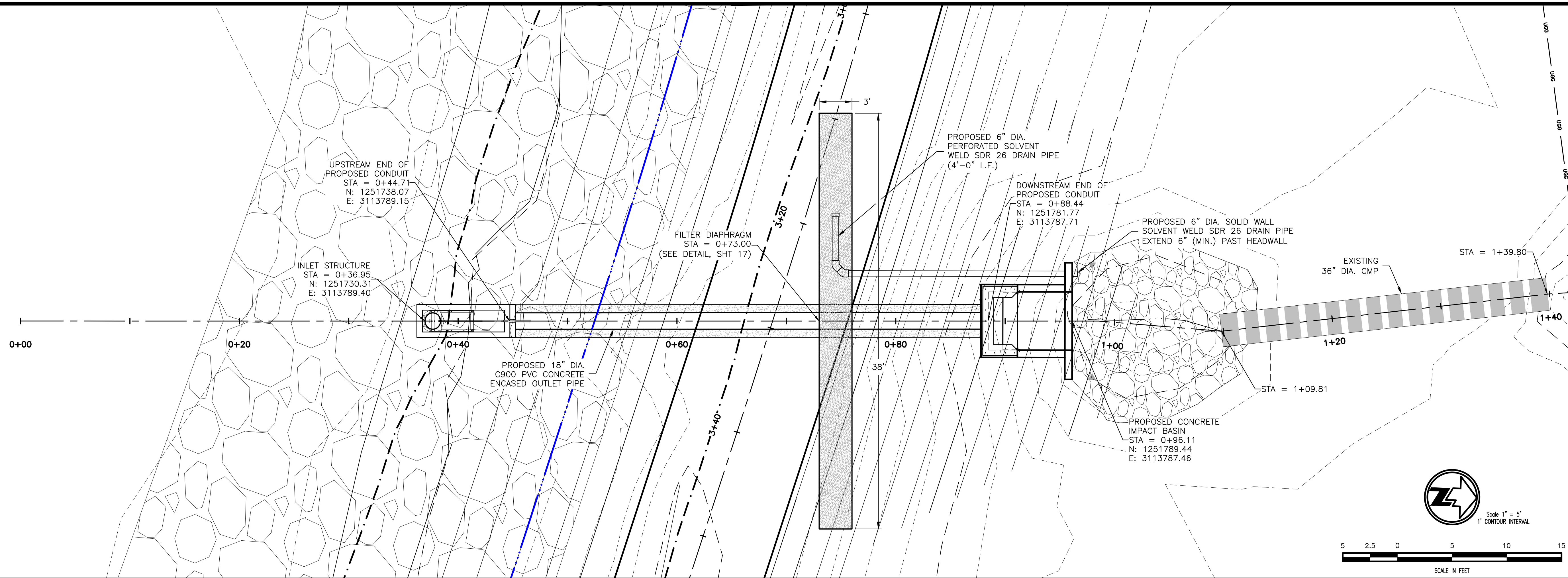
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Sheet: **12**
Of: **21**

Filing No. **C-**

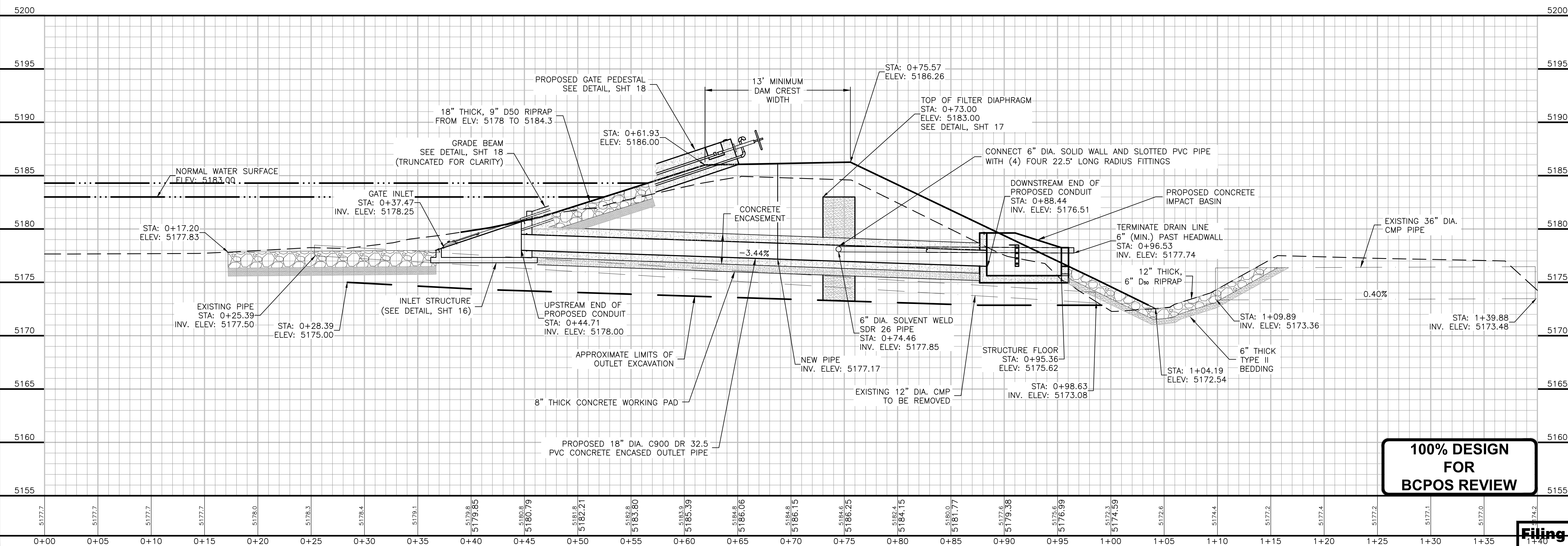
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PRINCE LAKE No 1 DAM REHABILITATION
OUTLET PLAN AND PROFILE

BOULDER COUNTY PARKS AND OPEN SPACE DEPARTMENT

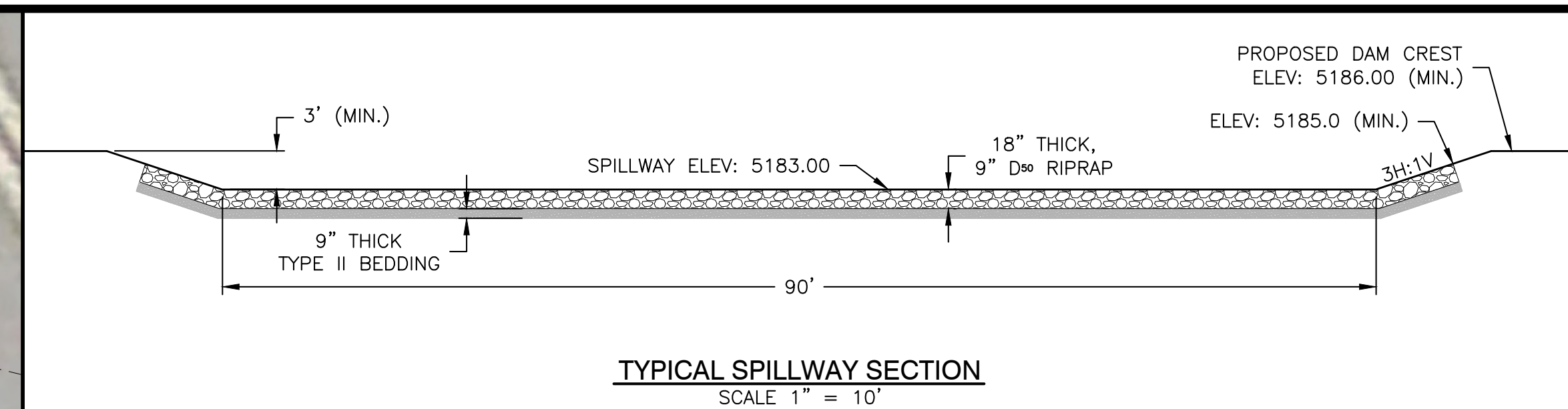
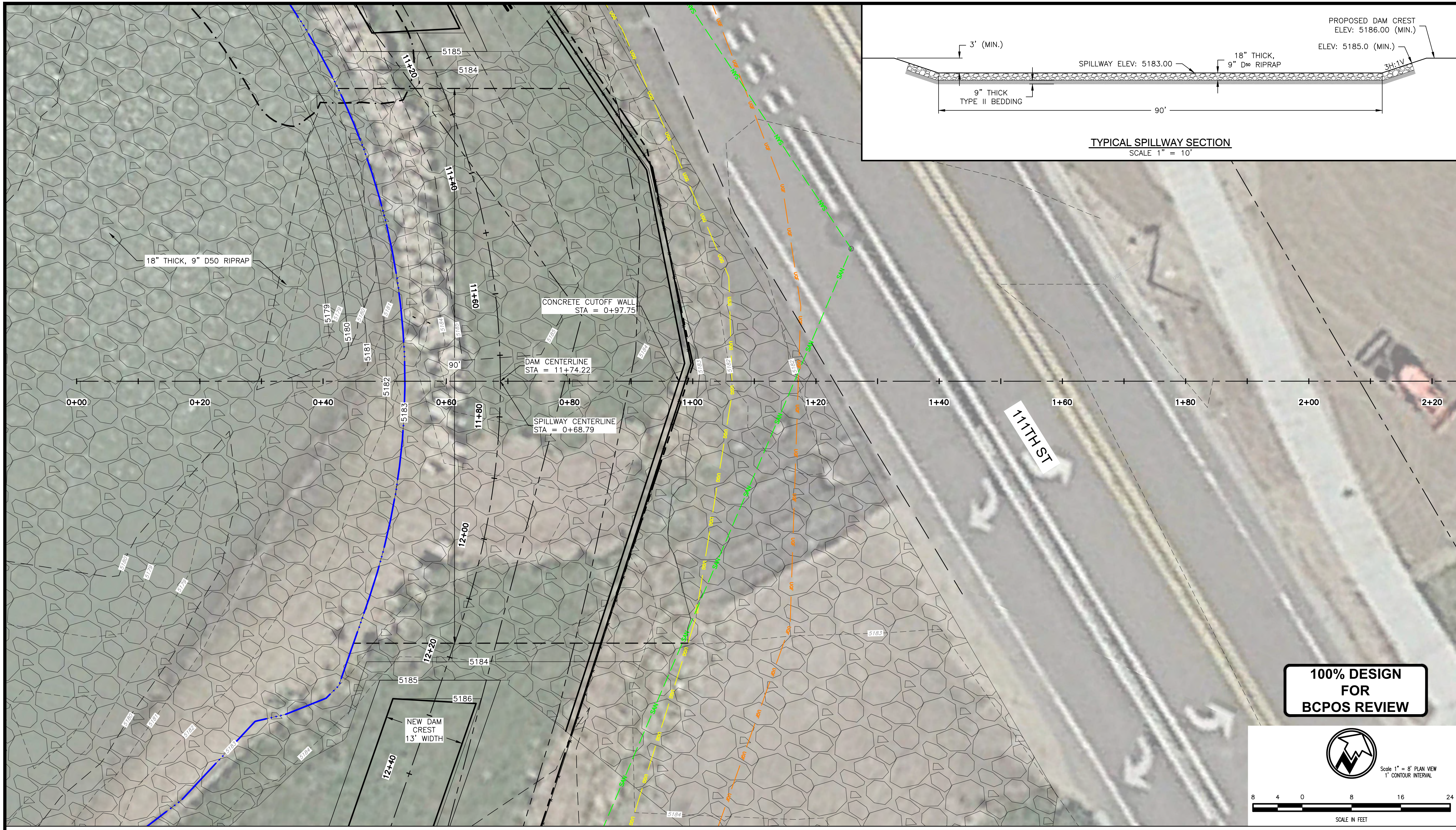


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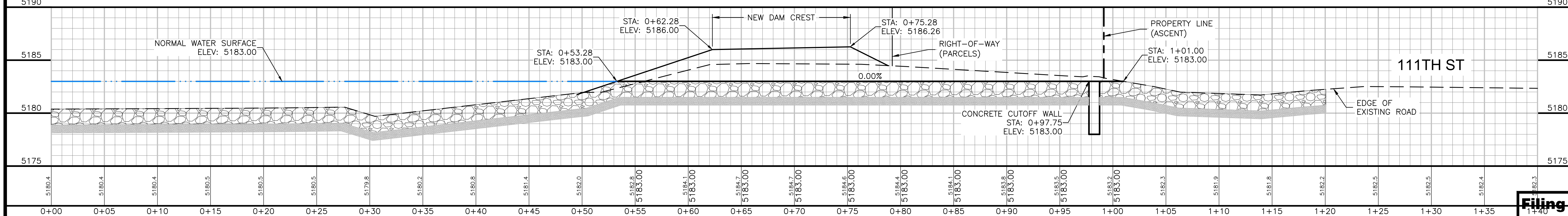
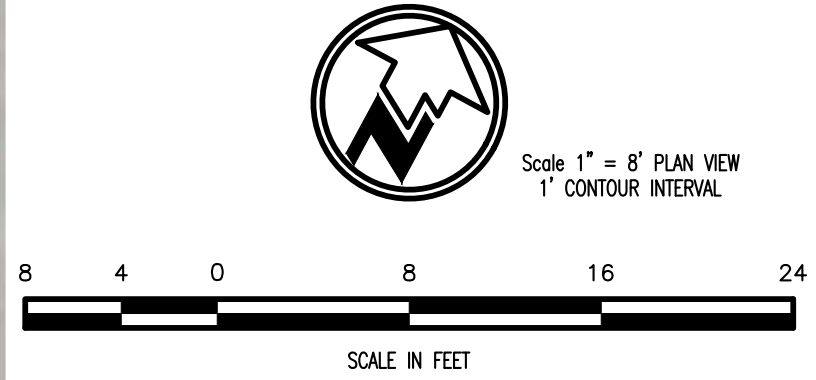
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 Drawn: LD/TH
 Design: SS
 Checked: TD
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Sheet: **13**
 Of: **21**
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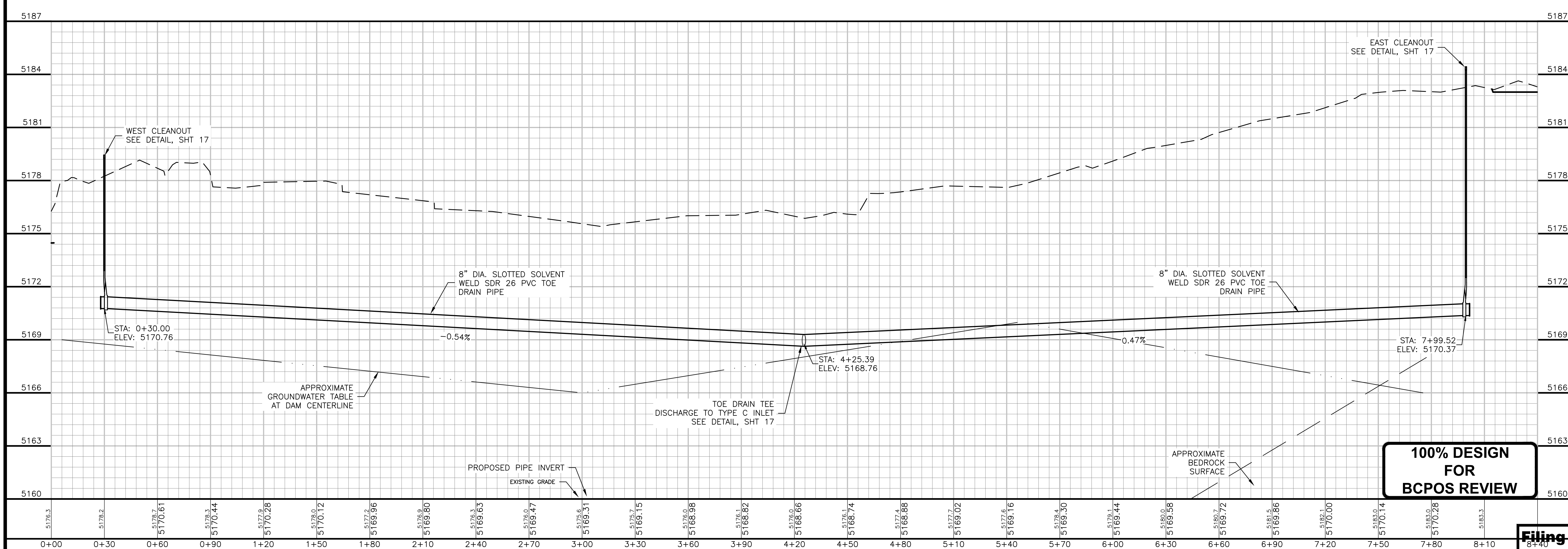
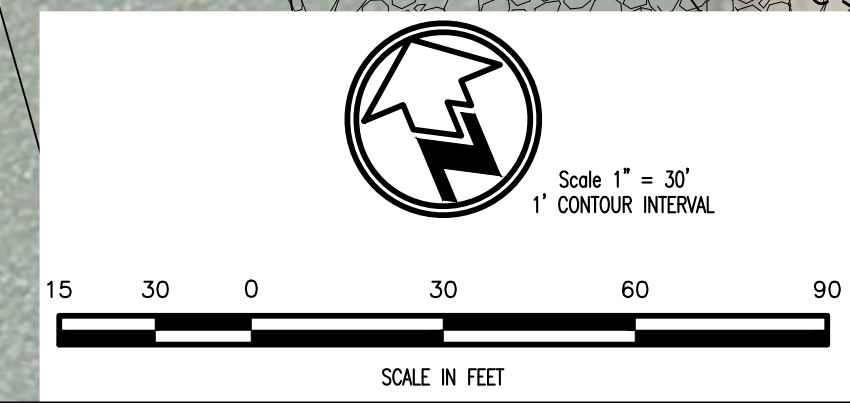
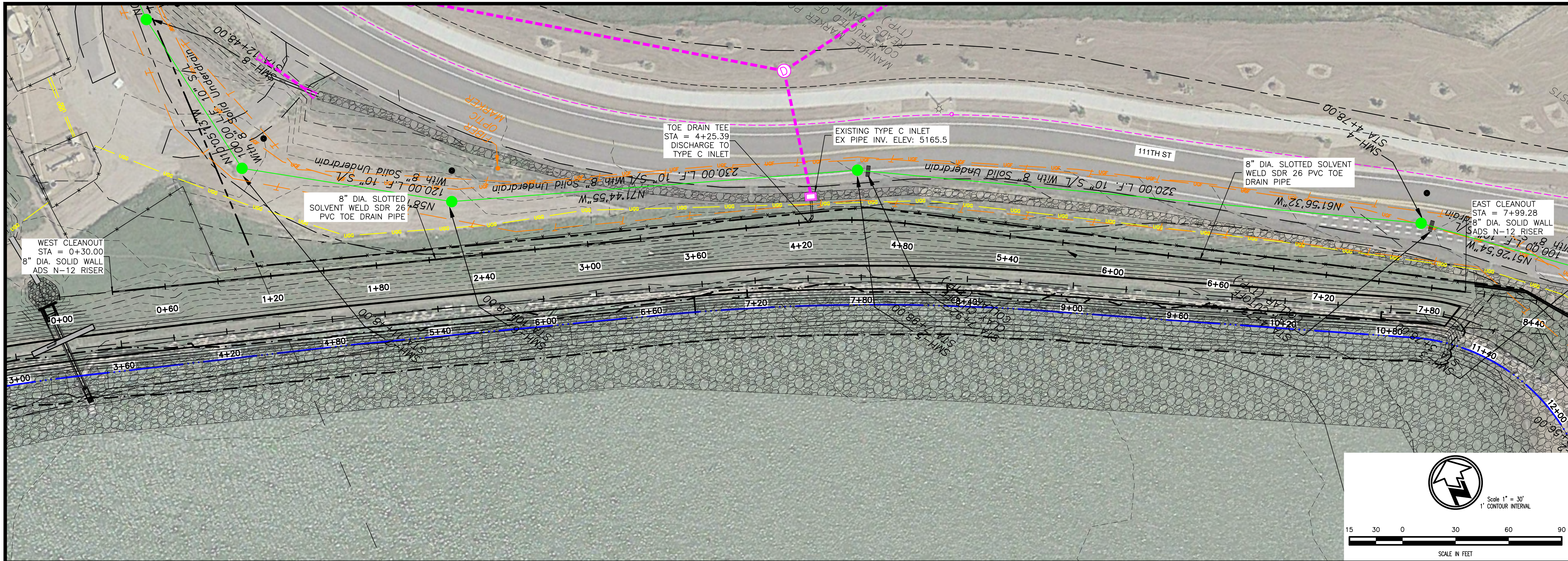
PRINCE LAKE No 1 DAM REHABILITATION
SPILLWAY PLAN AND PROFILE

BOULDER COUNTY PARKS AND OPEN SPACE DEPARTMENT

NO	DATE	BY	CHK'D	DESCRIPTION

Date: 22/DEC/22
Job No: 21-129
Drawn: LD/TH
Design: SS
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Scale: Varies

Sheet: **14**
Of: **21**
Filing No. **C-**



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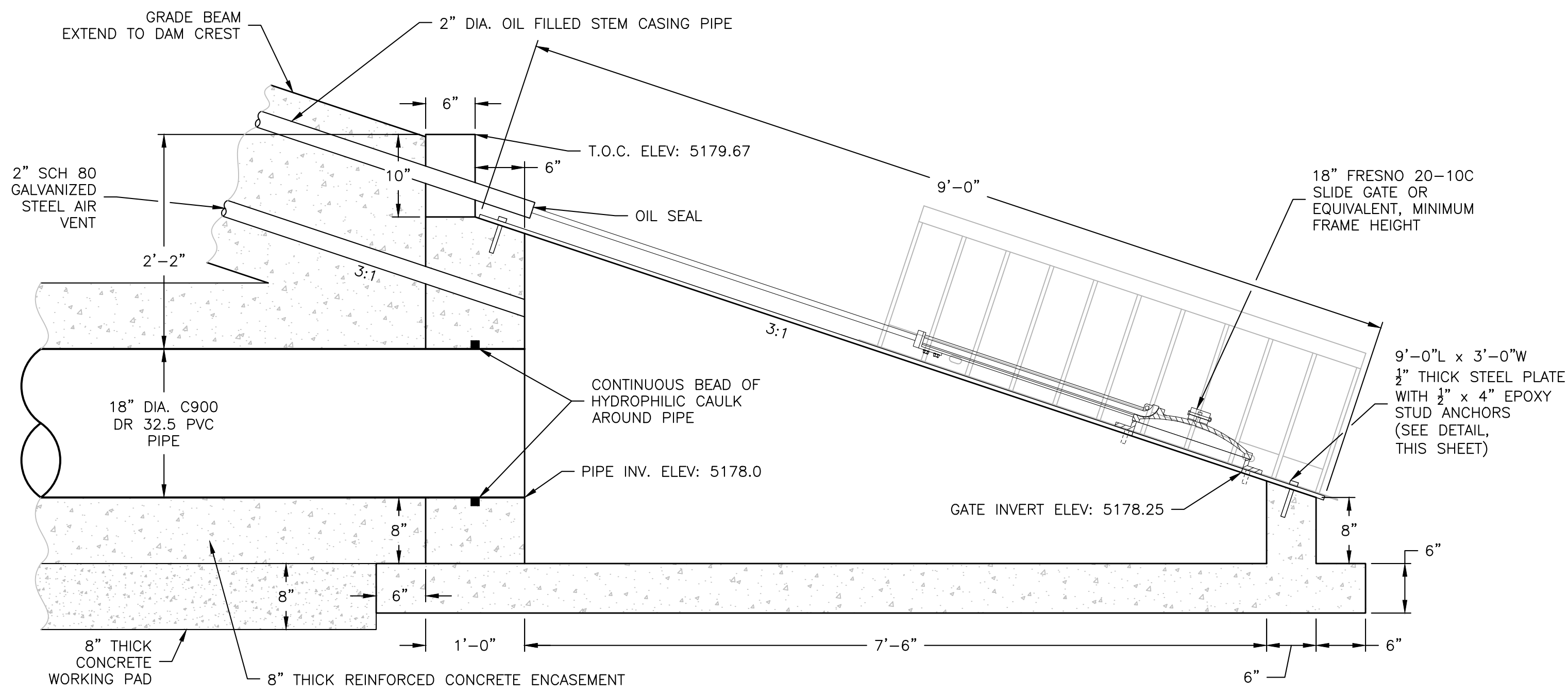
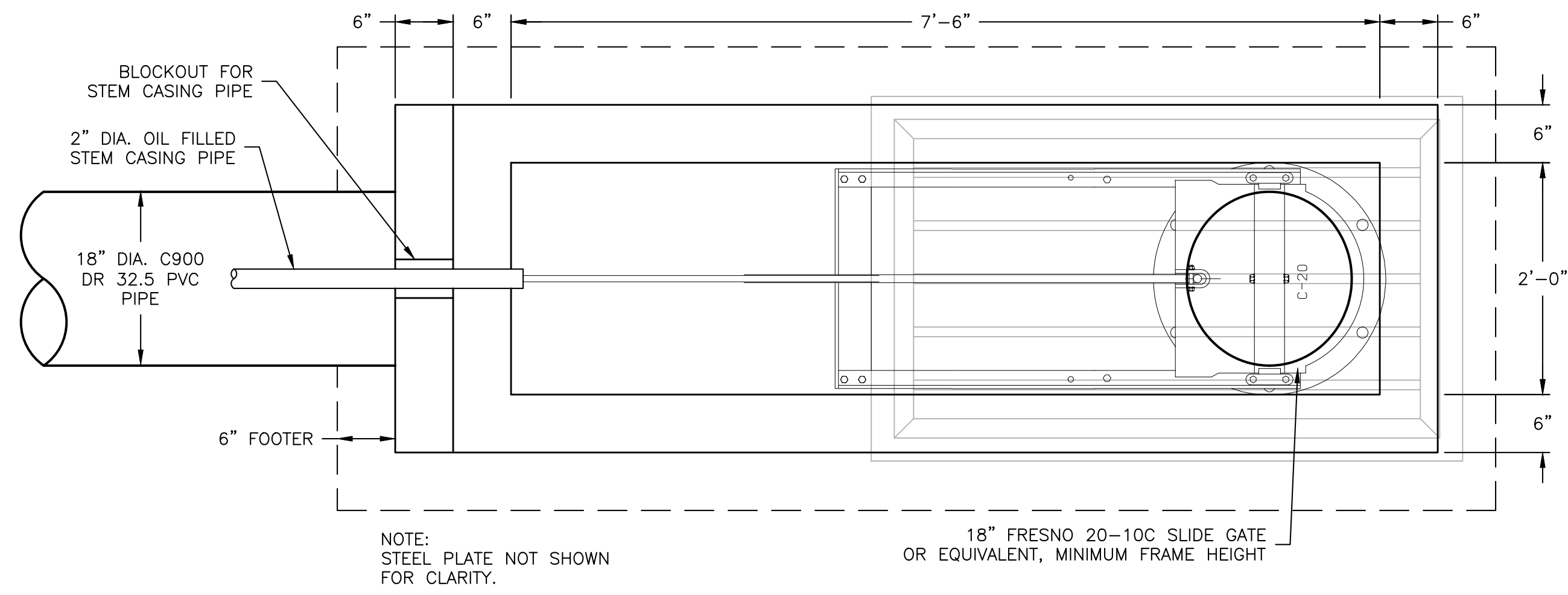
PRINCE LAKE No 1 DAM REHABILITATION
TOE DRAIN PLAN AND PROFILE

BOULDER COUNTY PARKS AND OPEN SPACE DEPARTMENT

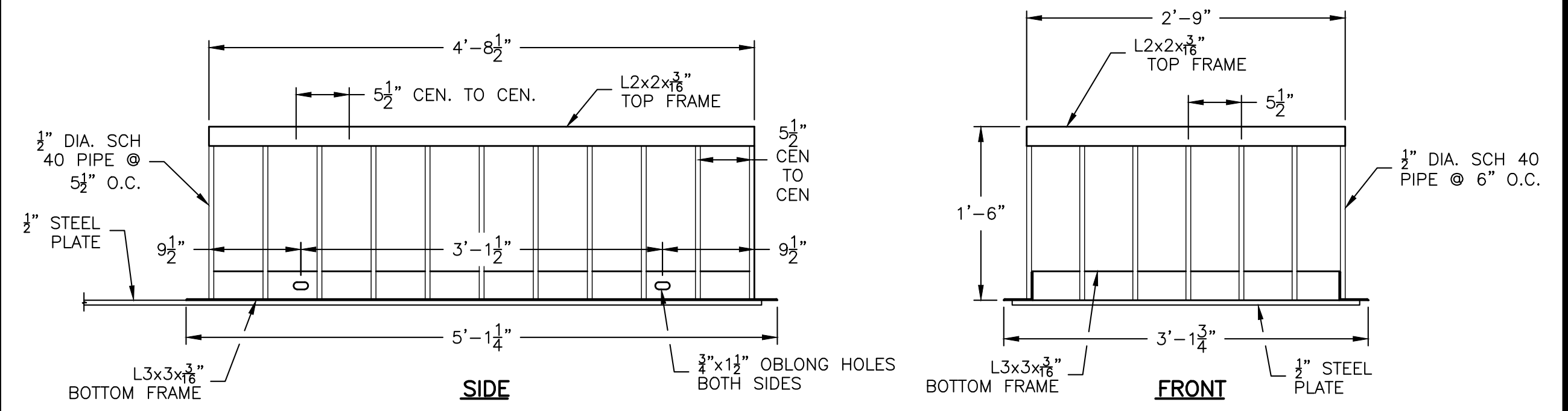
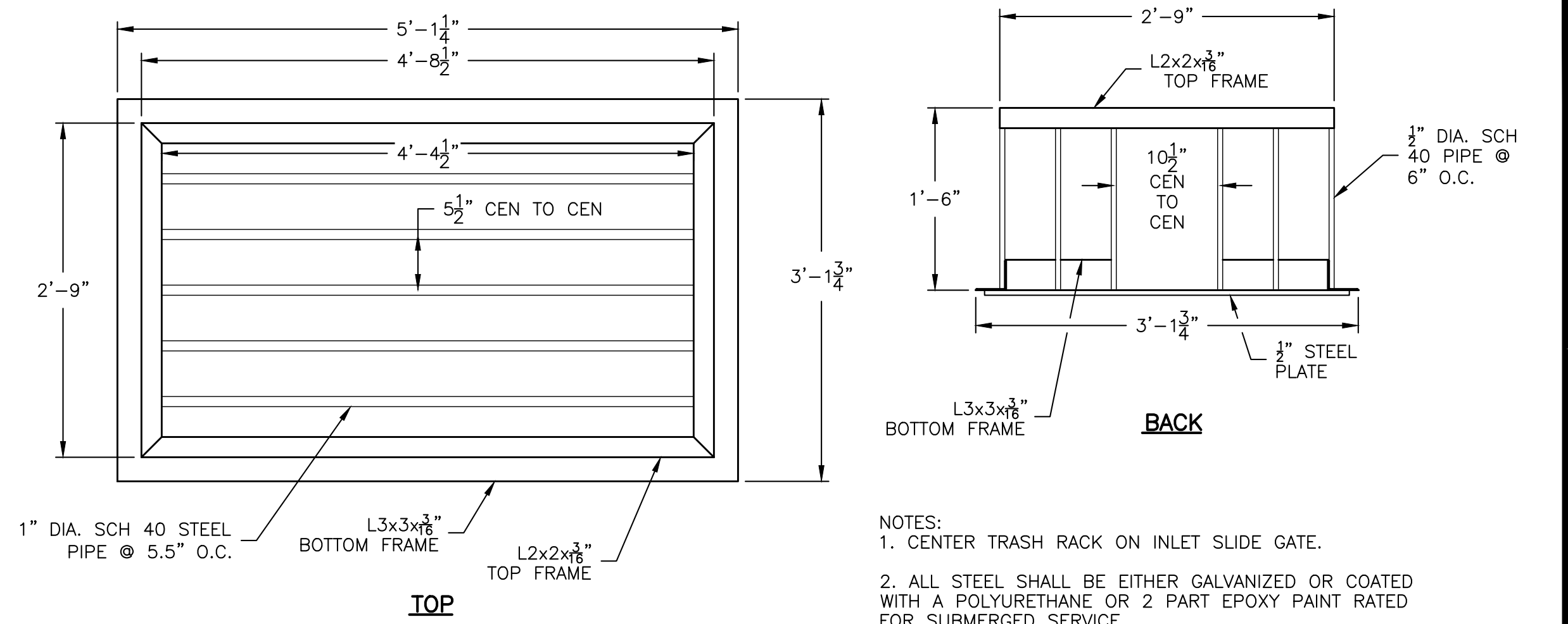
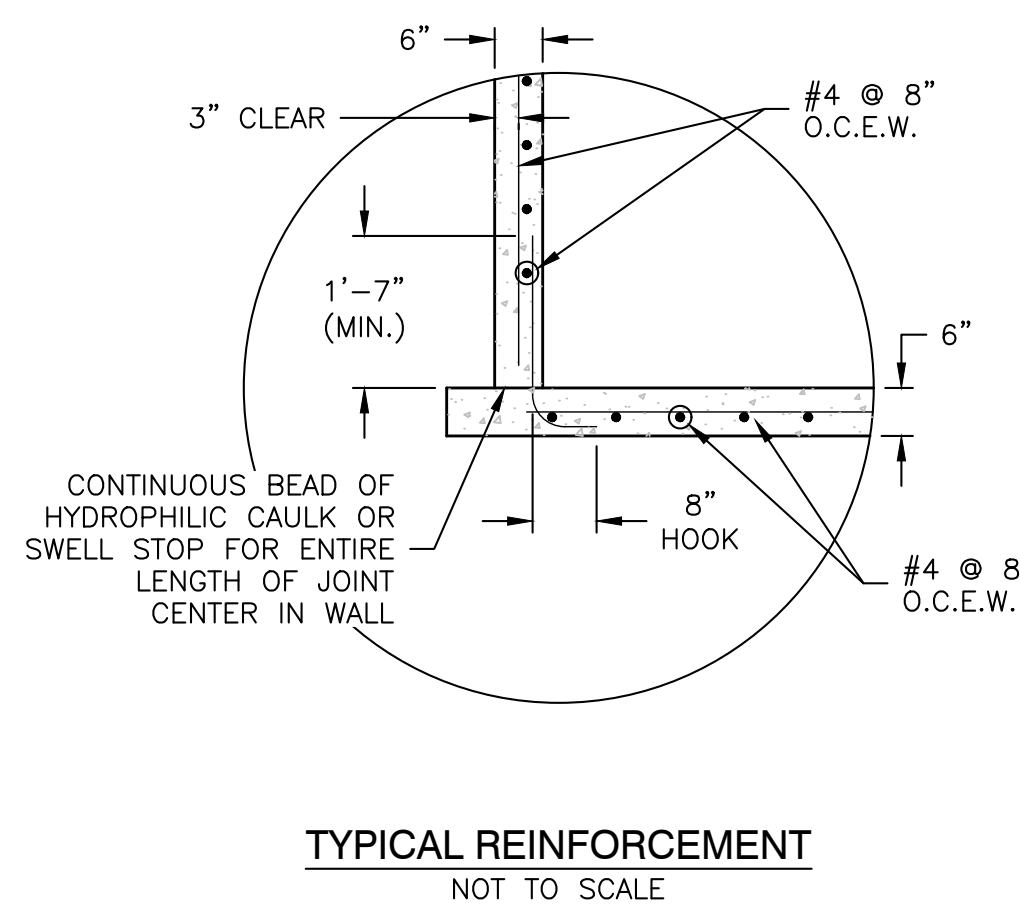
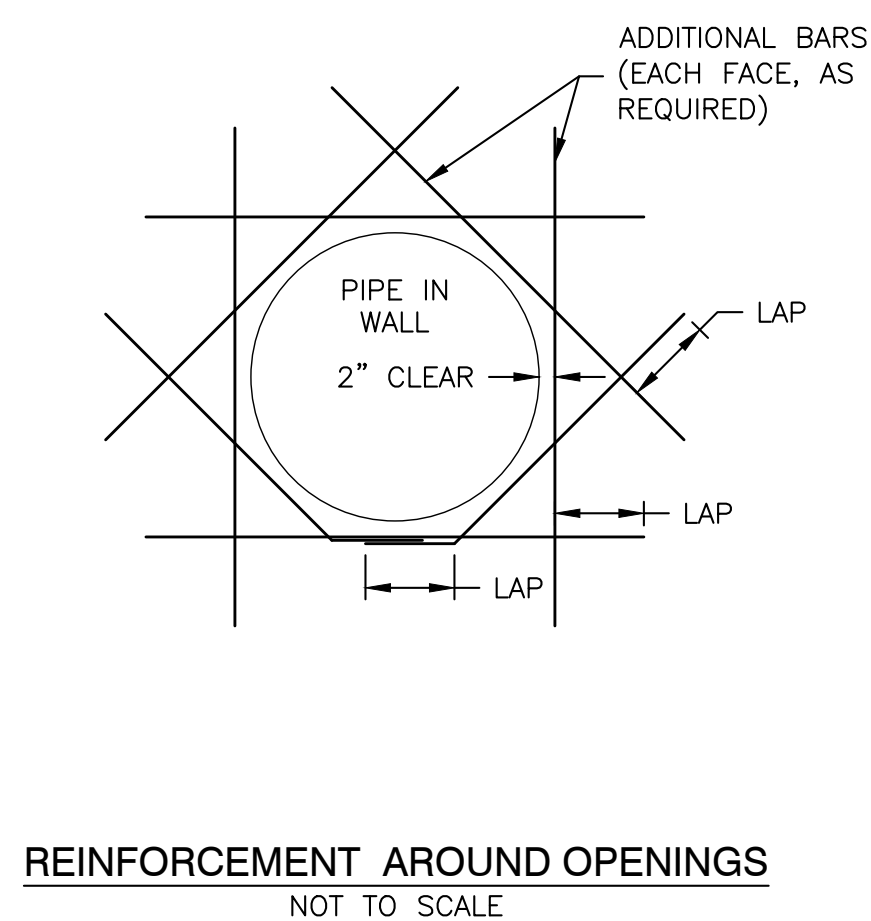
REVISIONS			
NO	DATE	BY	DESCRIPTION

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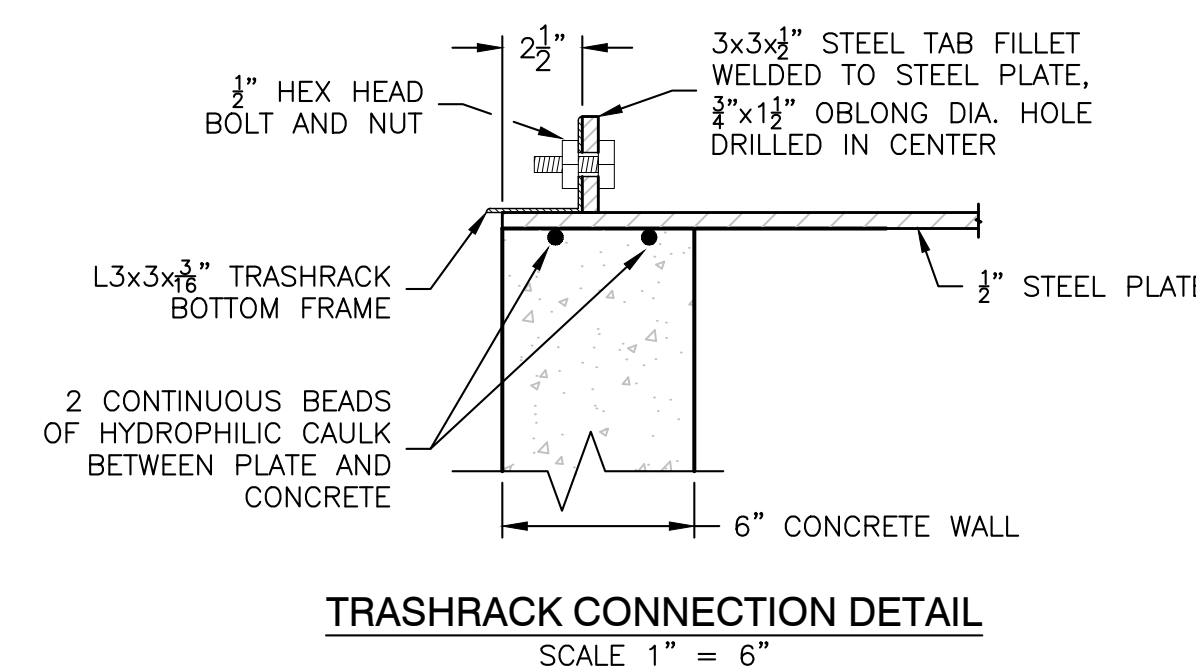
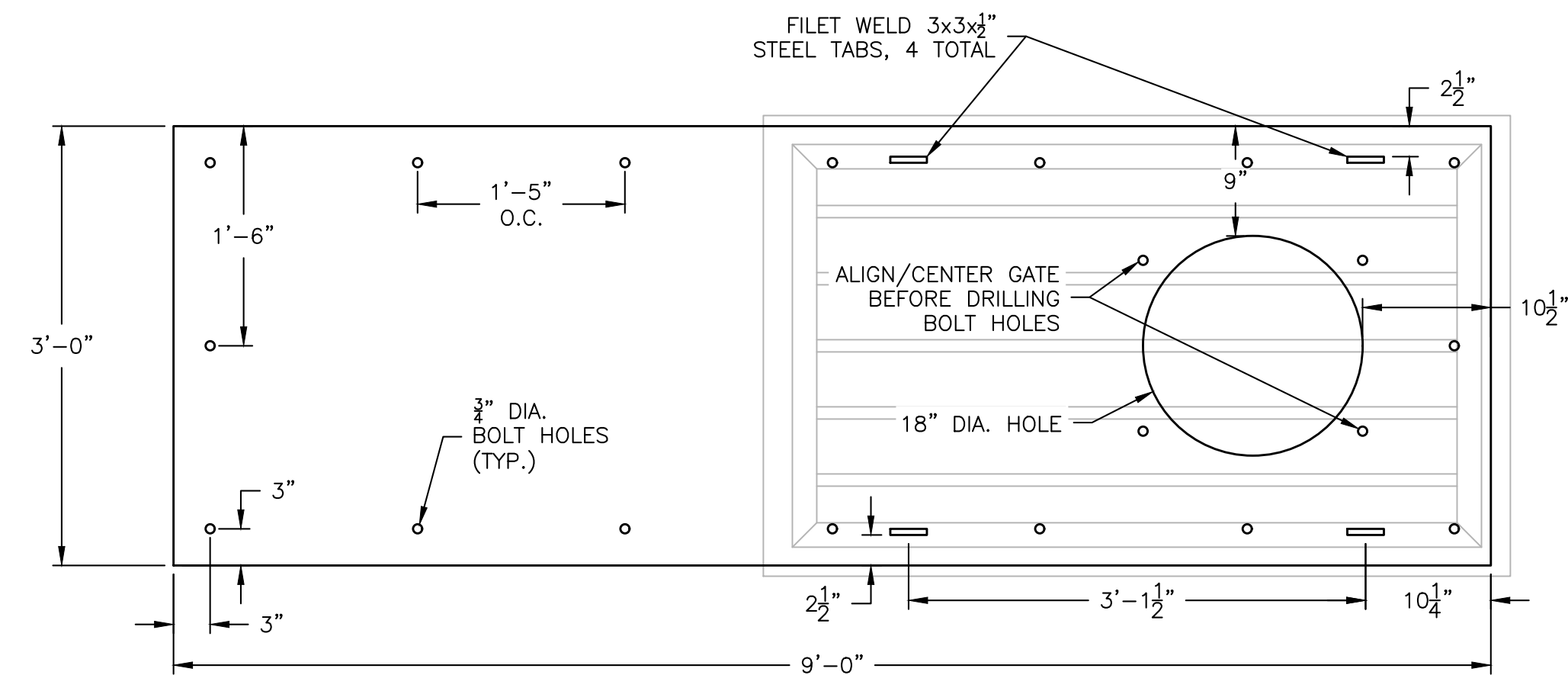
Sheet: **15** of **21**
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OUTLET INTAKE STRUCTURE DETAIL
SCALE 1" = 1'



TRASHRACK DETAIL
SCALE 1" = 1'



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PRINCE LAKE No 1 DAM REHABILITATION
INLET DETAILS

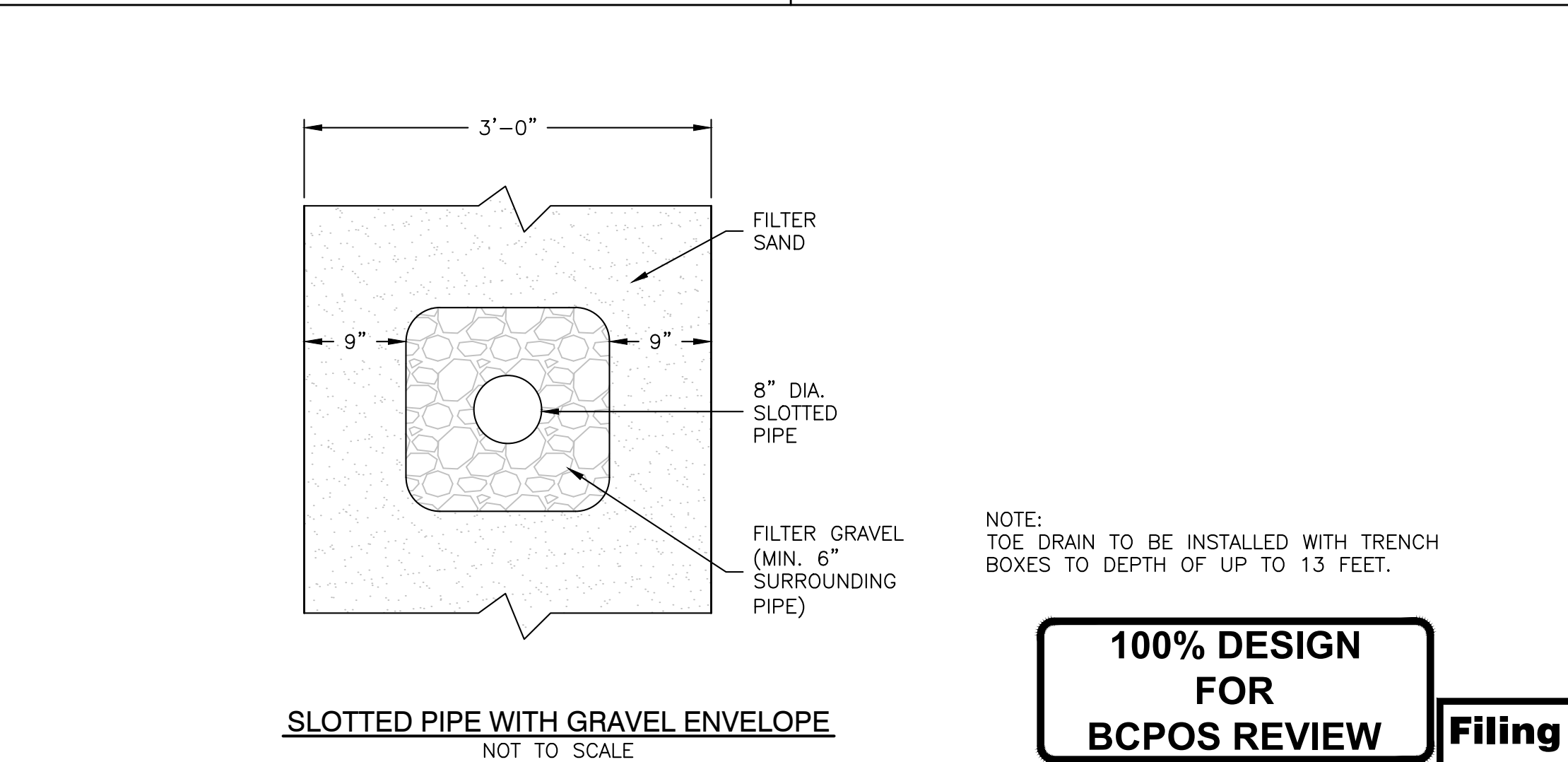
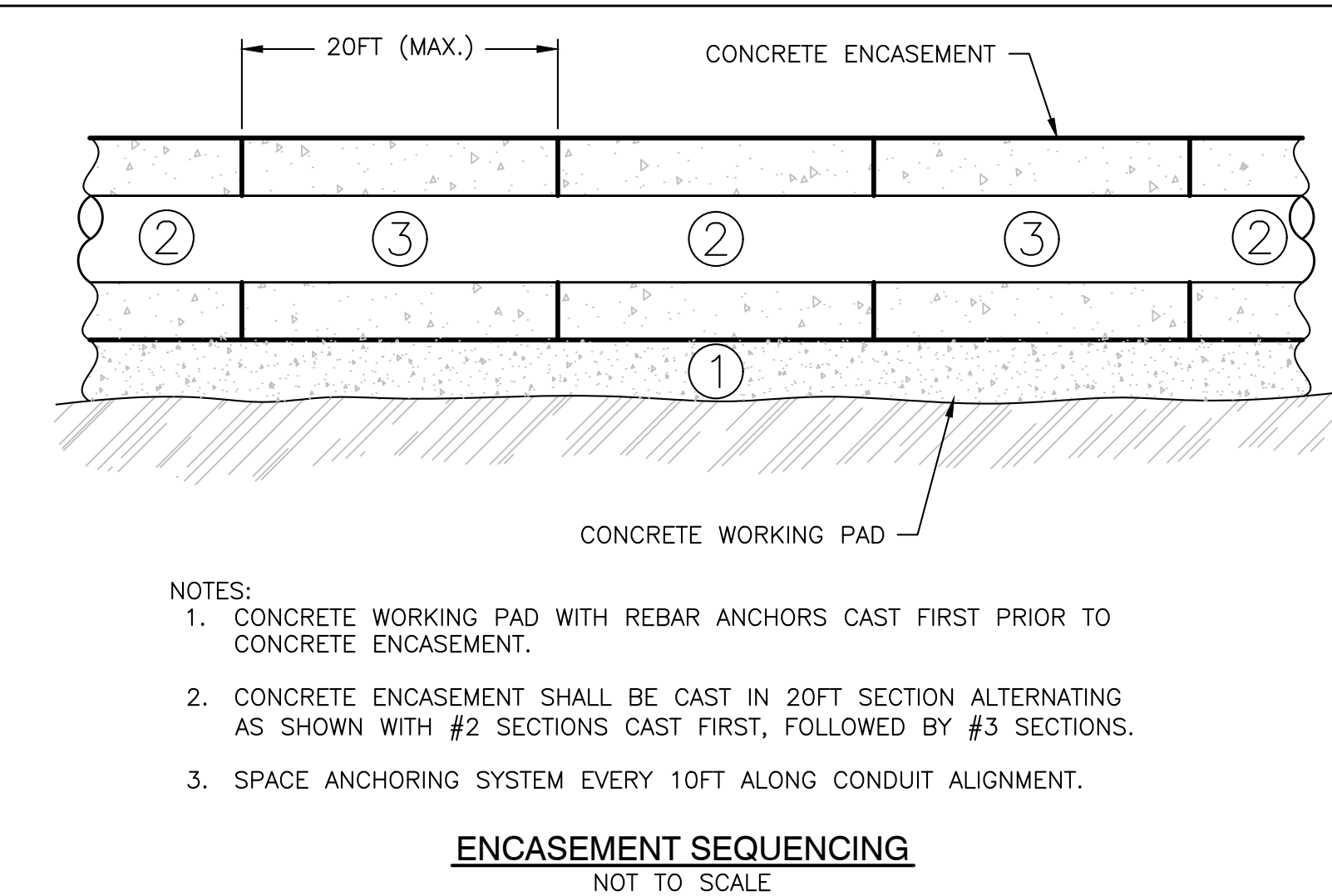
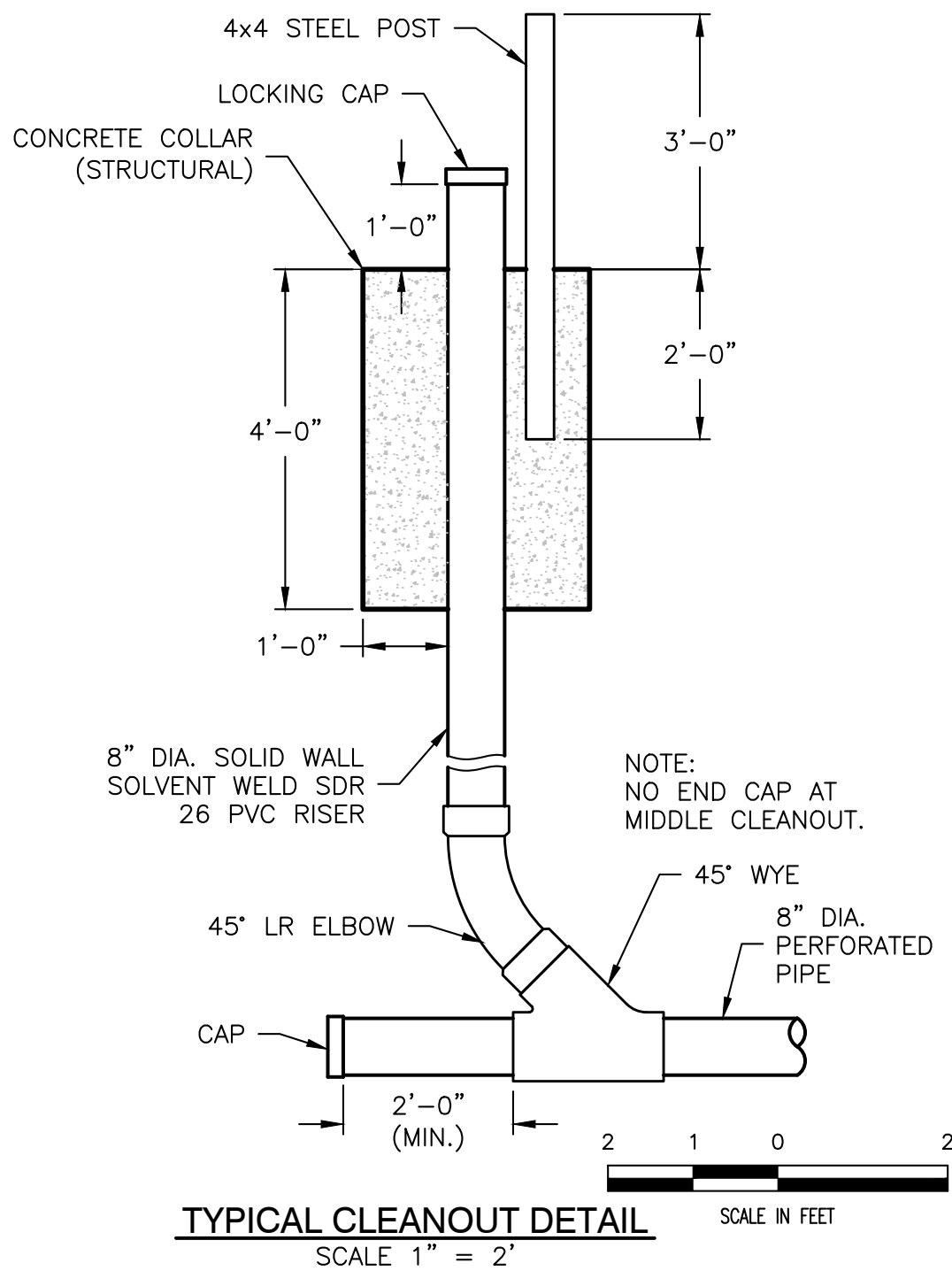
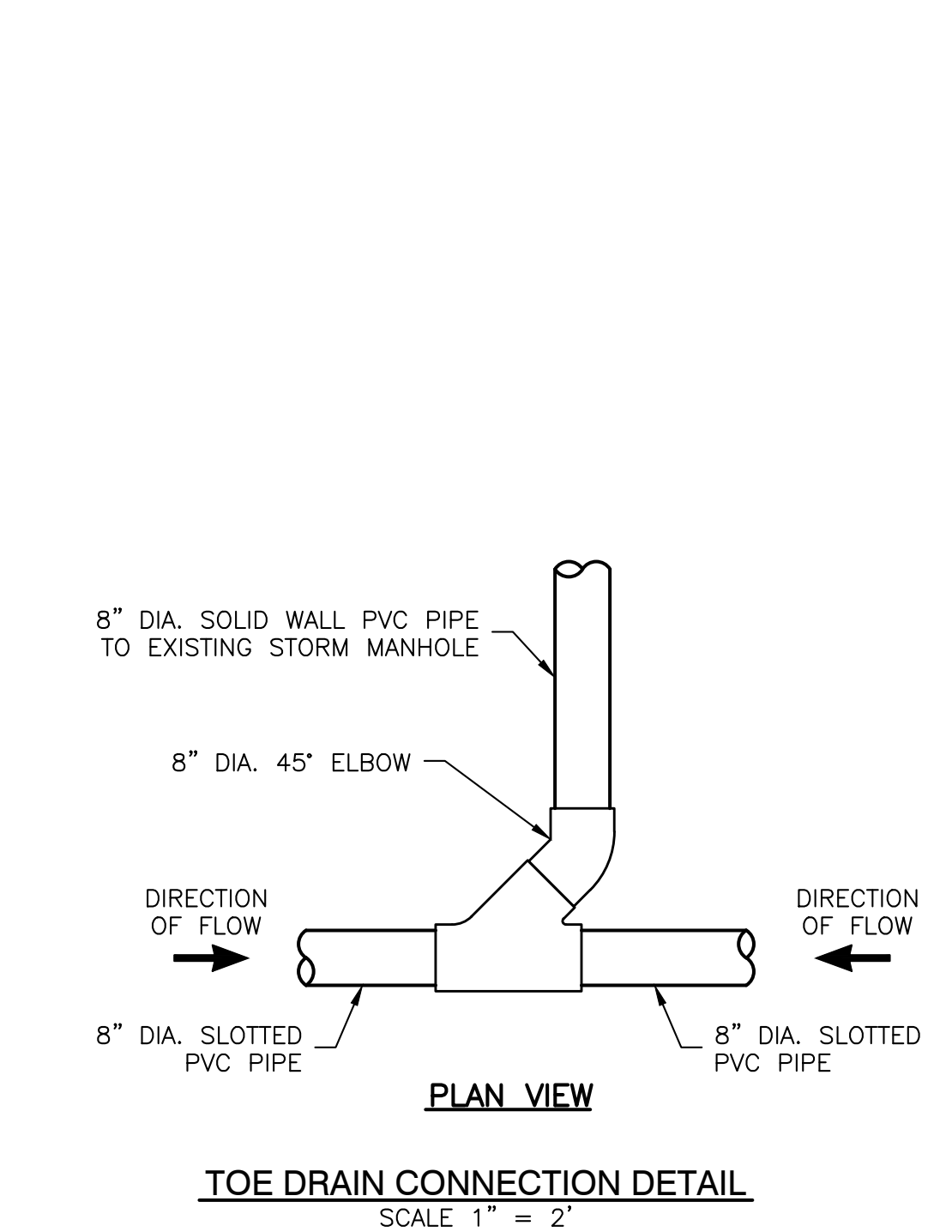
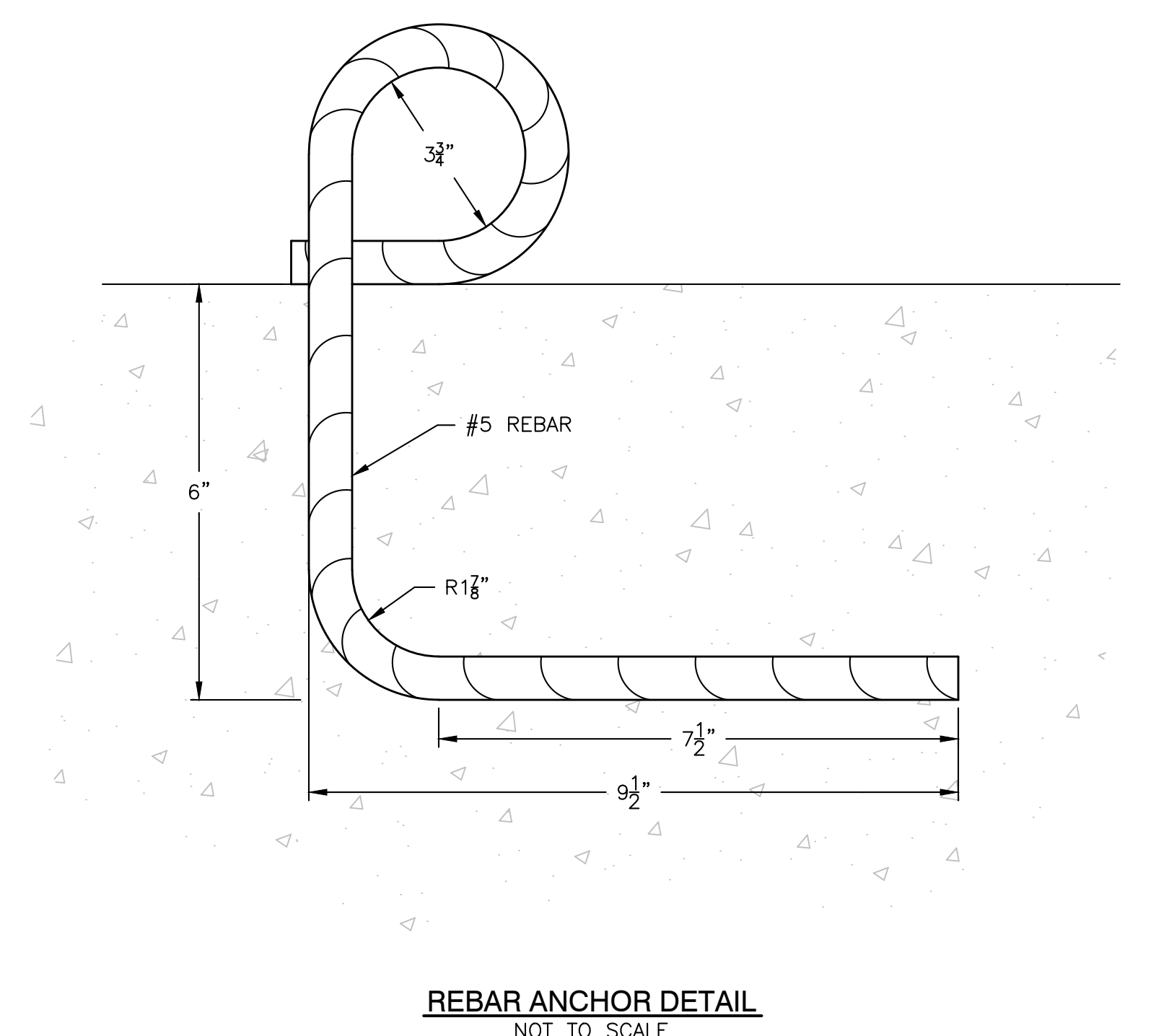
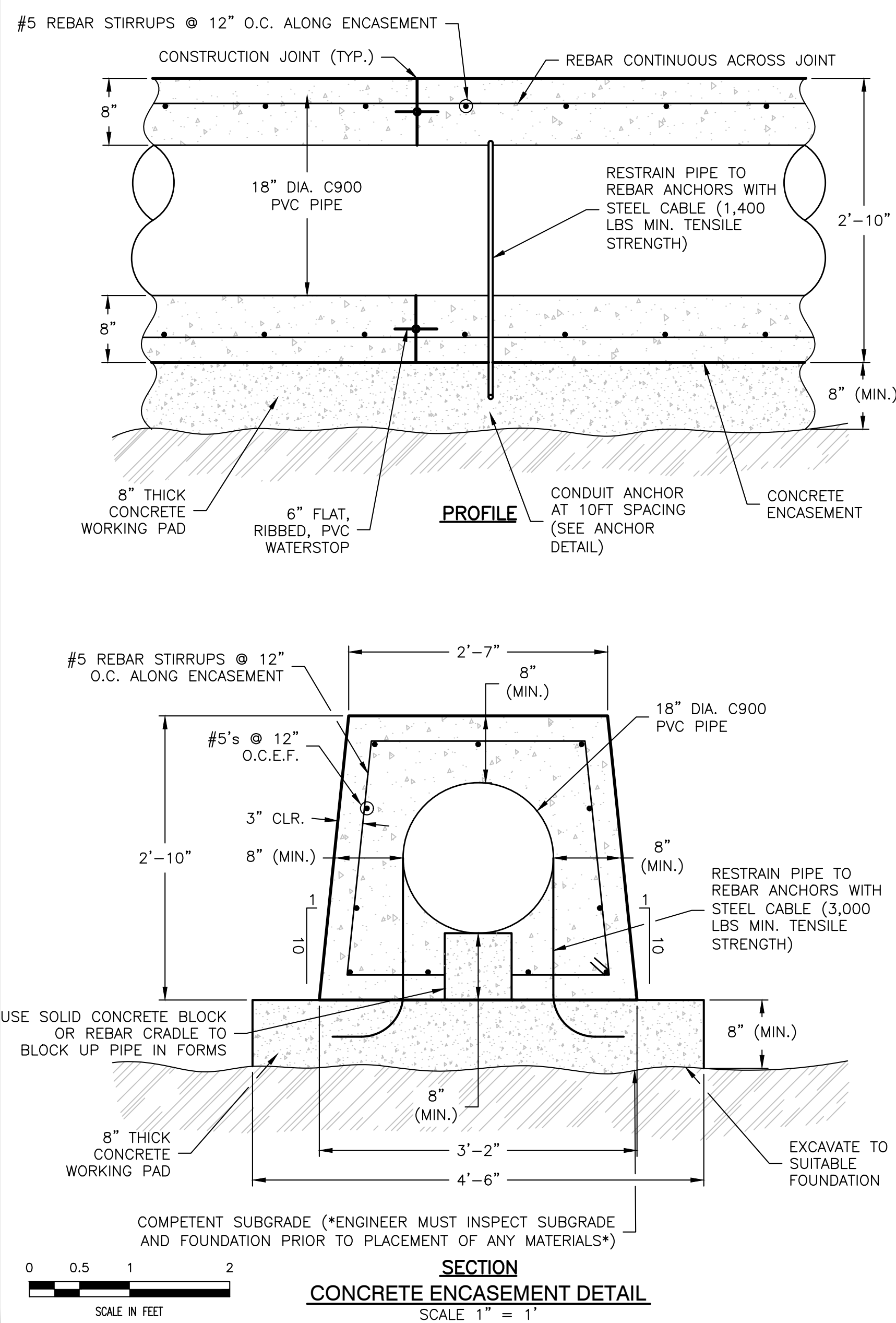
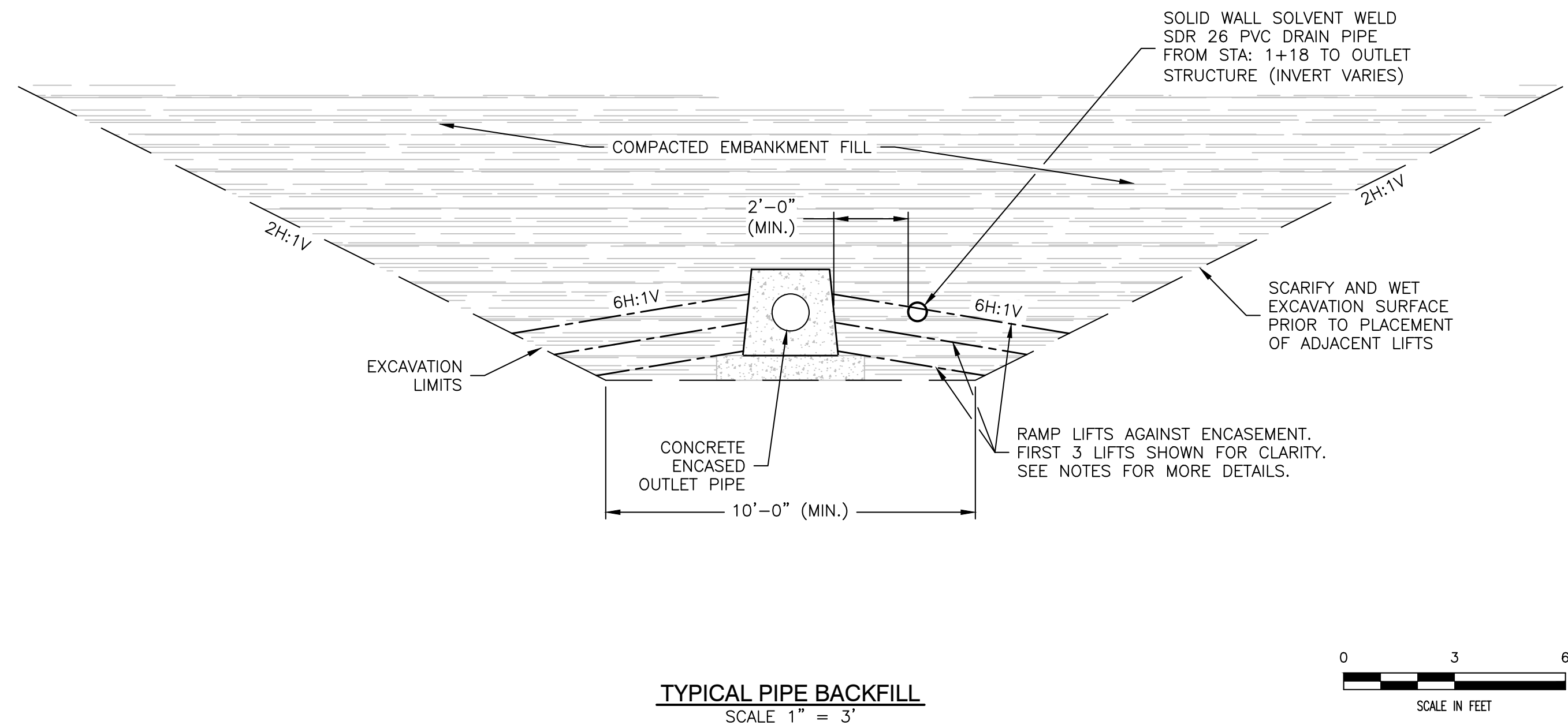
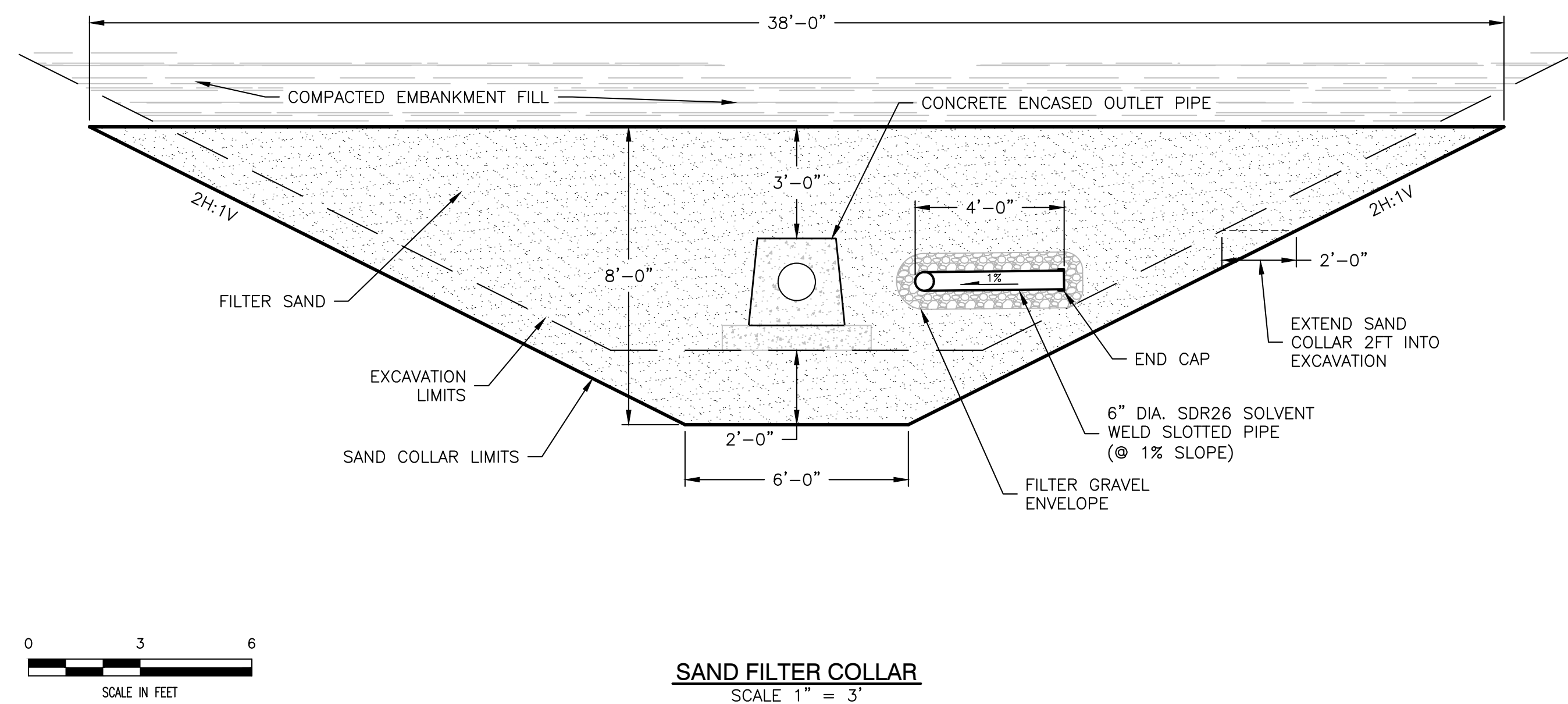
BOULDER COUNTY PARKS AND OPEN SPACE DEPARTMENT

NO	DATE	BY	CHK'D	DESCRIPTION

Date: 22/DEC/22
Job No: 21-129
Drawn: LD/TH
Design: SS
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Scale: As Noted

Sheet: **16**
Of: **21**

Filing No. **C-**



- NOTES:
1. CONCRETE WORKING PAD WITH REBAR ANCHORS CAST FIRST PRIOR TO CONCRETE ENCASEMENT.
 2. CONCRETE ENCASEMENT SHALL BE CAST IN 20FT SECTION ALTERNATING AS SHOWN WITH #2 SECTIONS CAST FIRST, FOLLOWED BY #3 SECTIONS.
 3. SPACE ANCHORING SYSTEM EVERY 10FT ALONG CONDUIT ALIGNMENT.

NOTE: TOE DRAIN TO BE INSTALLED WITH TRENCH BOXES TO DEPTH OF UP TO 13 FEET.

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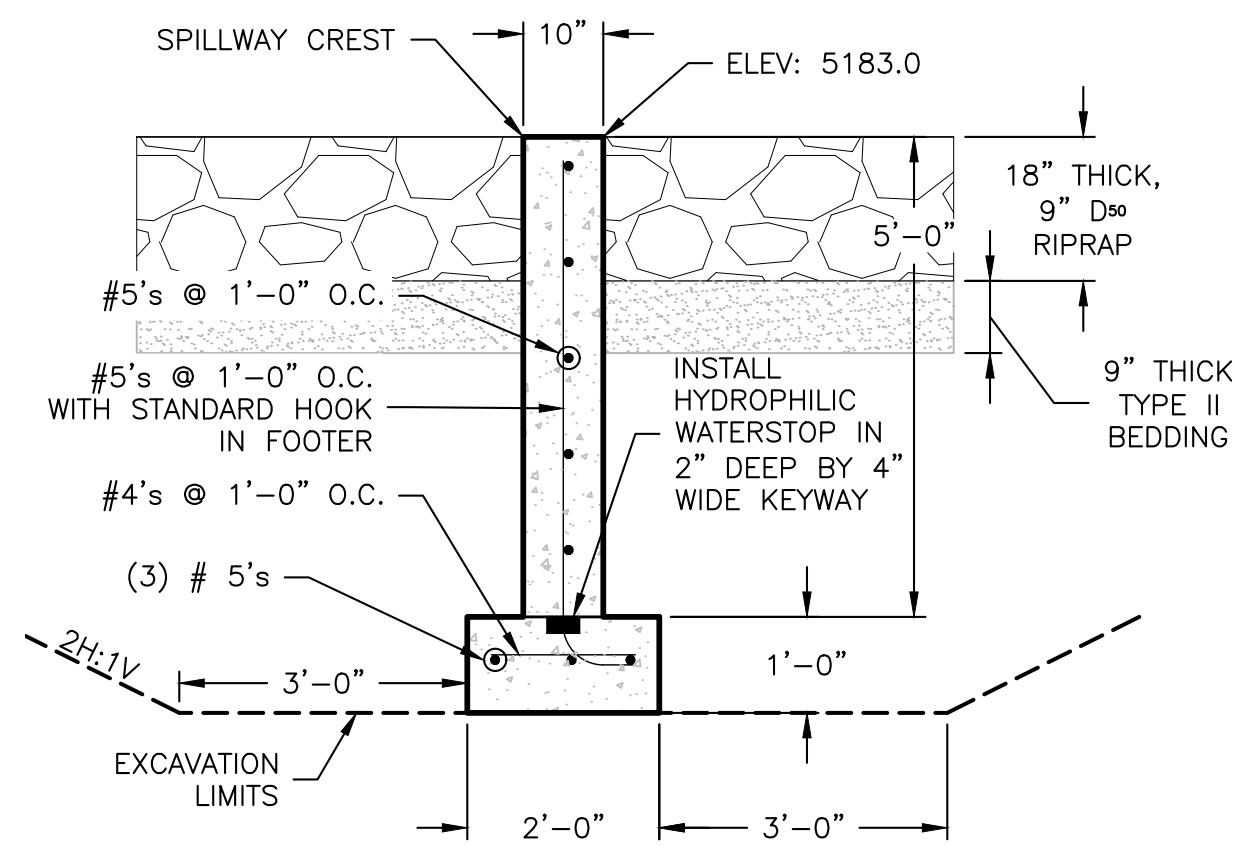
PRINCE LAKE No 1 DAM REHABILITATION
FILTER DIAPHRAGM, OUTLET ENCASEMENT AND TOE DRAIN DETAILS

BOULDER COUNTY PARKS AND OPEN SPACE DEPARTMENT

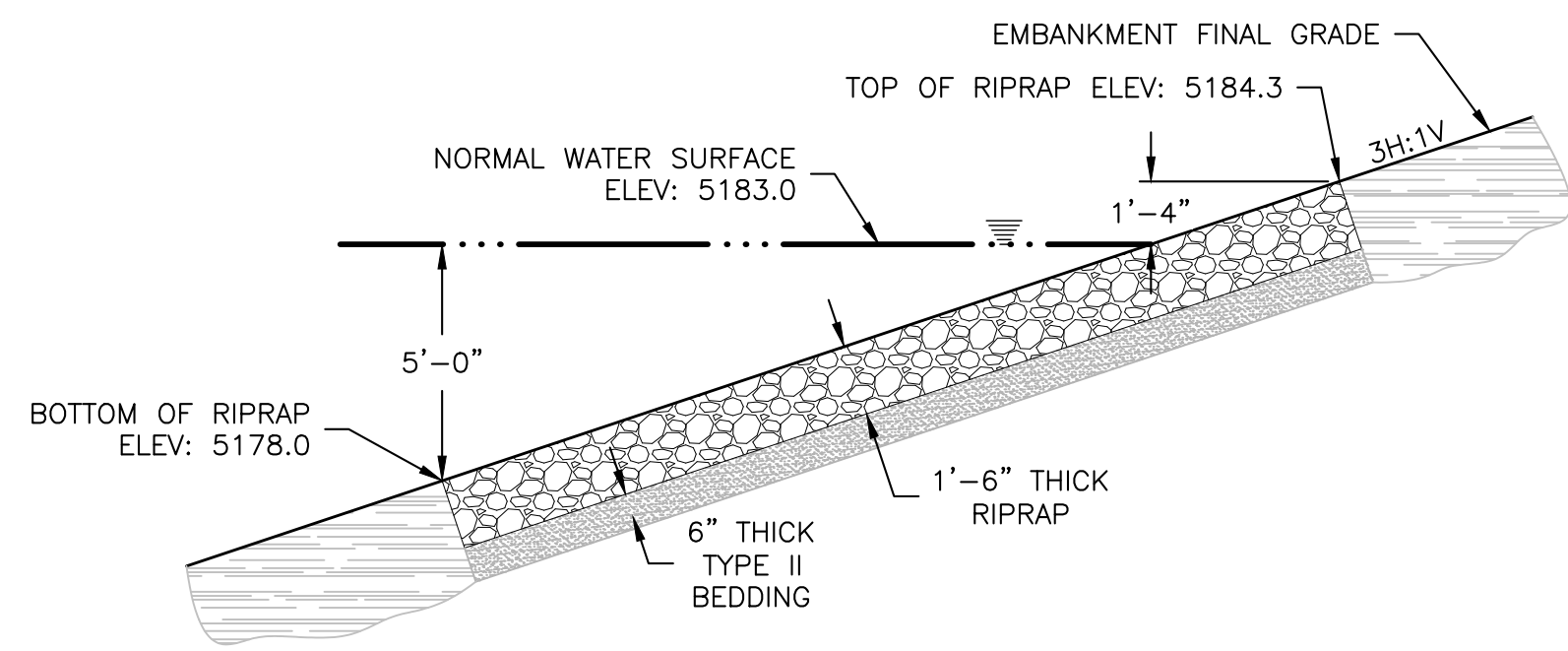
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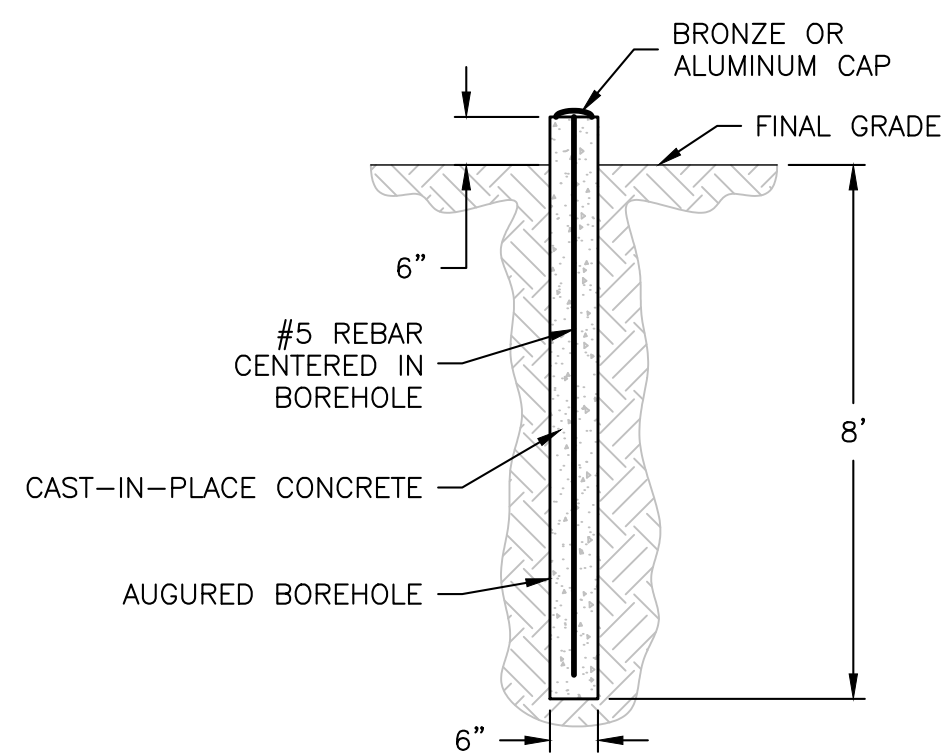
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Filing No. **C-**



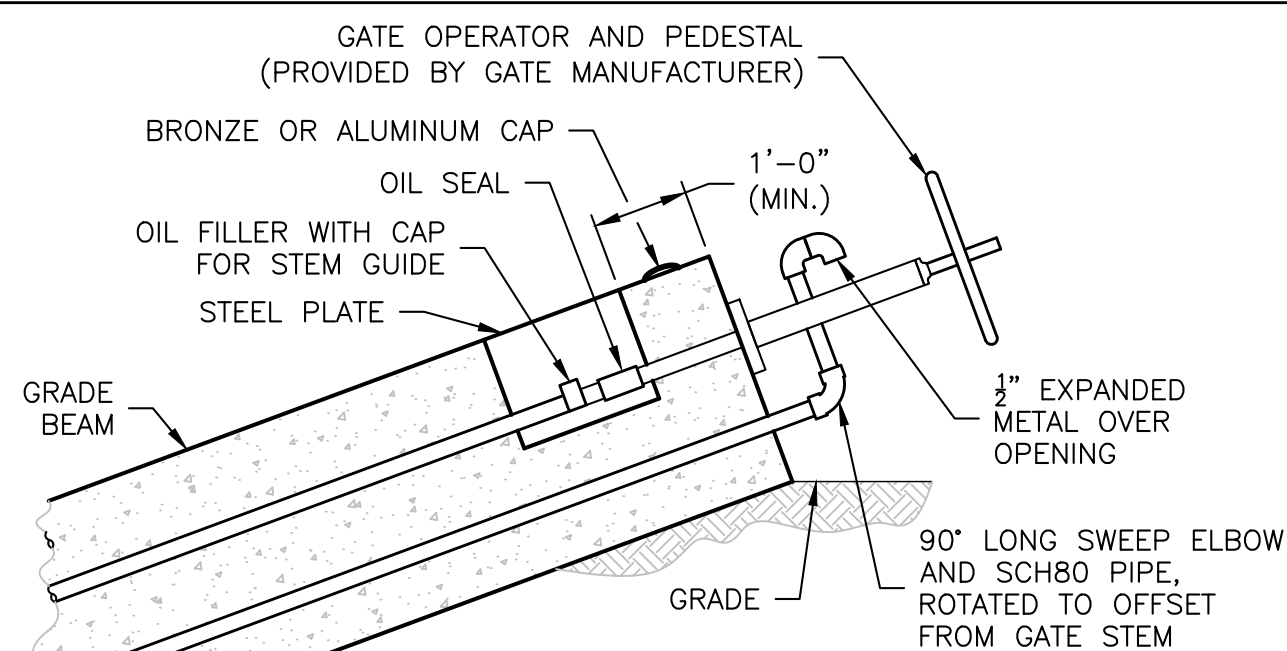
SPILLWAY CONCRETE CUTOFF WALL
SCALE 1" = 2'



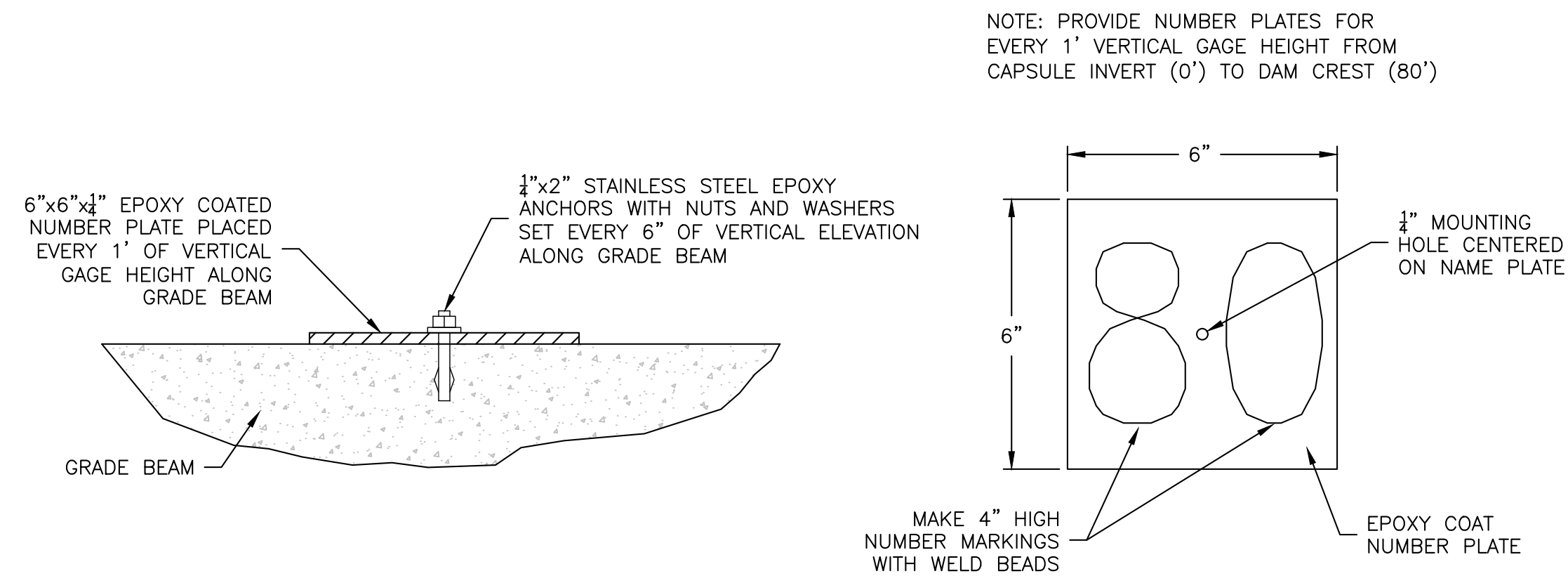
UPSTREAM SLOPE PROTECTION DETAIL
NOT TO SCALE



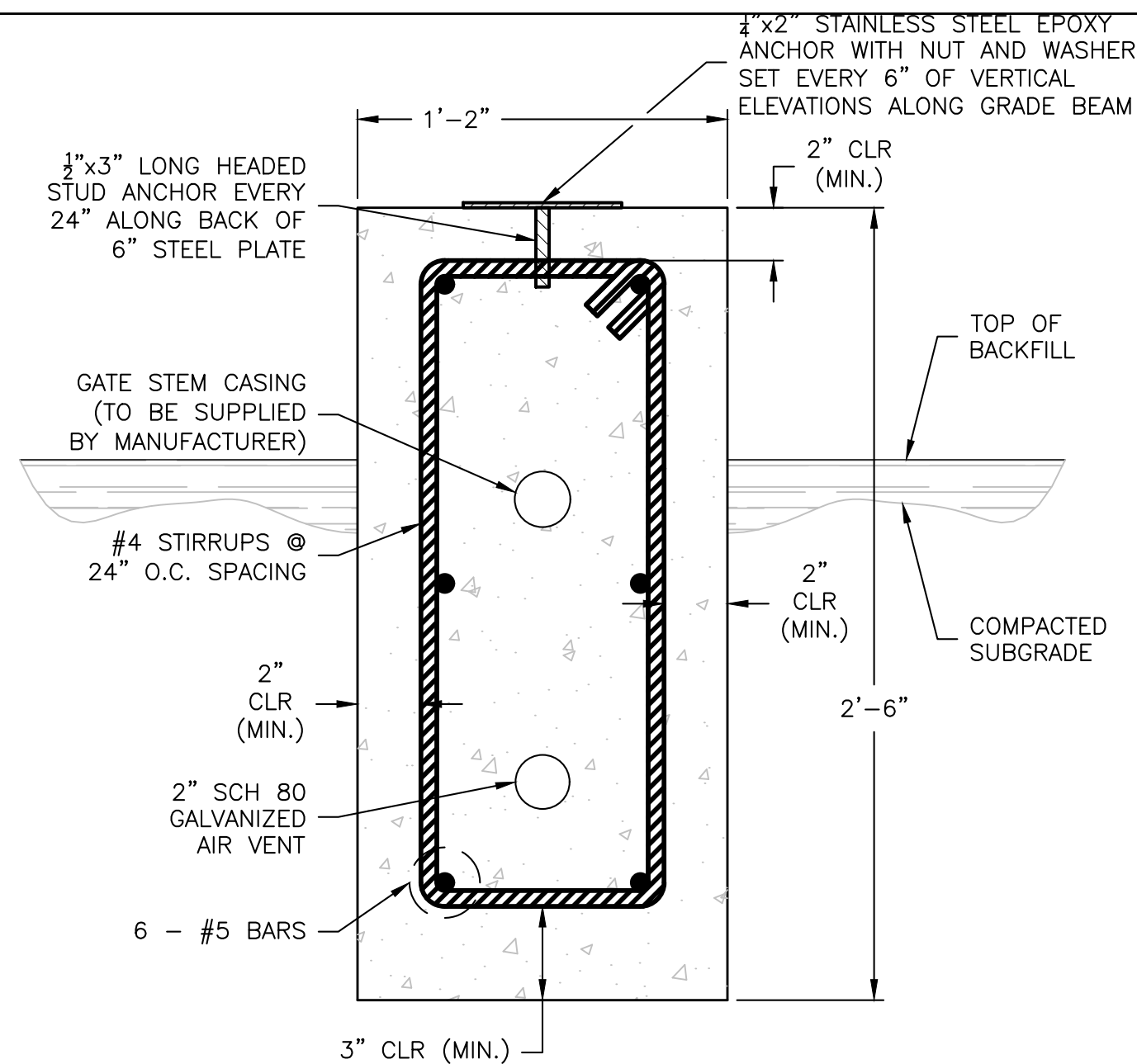
SURVEY MONUMENT
NOT TO SCALE



SECTION GATE PEDESTAL DETAIL
NOT TO SCALE



STAFF GAGE DETAIL
NOT TO SCALE



0 0.25 0.5 1.0
SCALE IN FEET

GRADE BEAM DETAIL
SCALE 1" = 0'-6"

NOTE: PROVIDE NUMBER PLATES FOR EVERY 1' VERTICAL GAGE HEIGHT FROM CAPSULE INVERT (0') TO DAM CREST (80')

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PRINCE LAKE No 1 DAM REHABILITATION
OUTLET AND UPSTREAM RIPRAP DETAILS

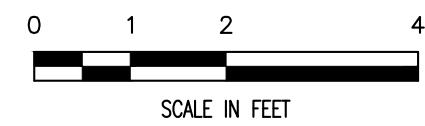
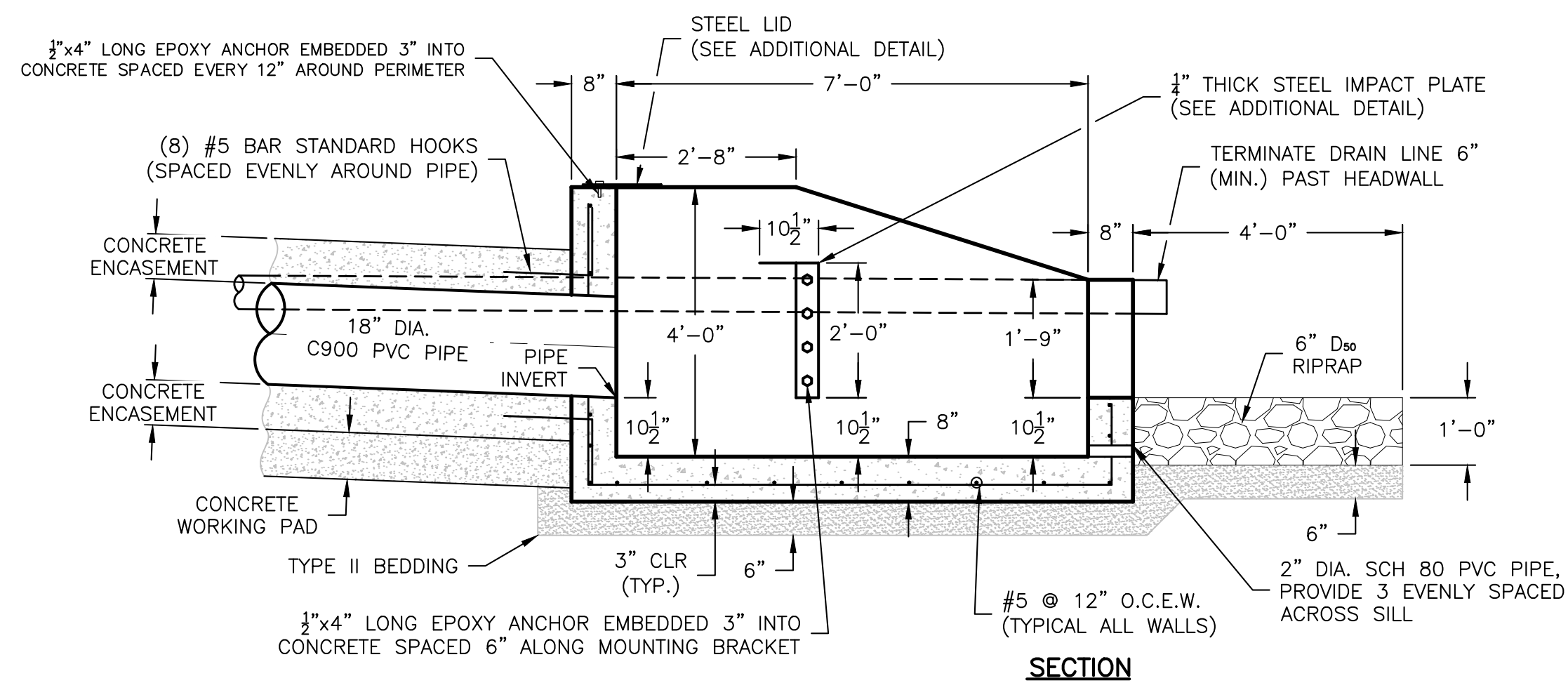
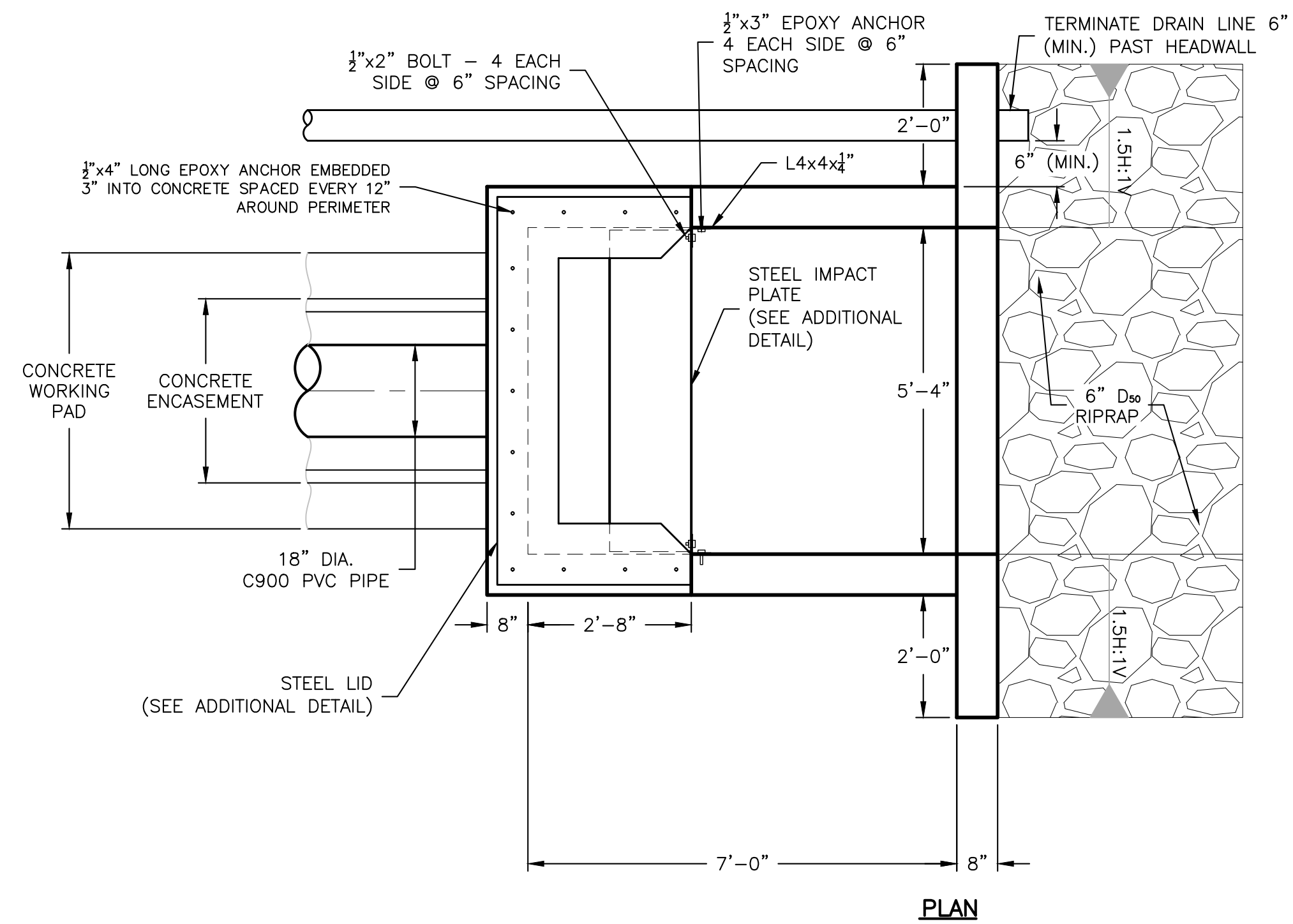
BOULDER COUNTY PARKS AND OPEN SPACE DEPARTMENT

REVISIONS			
NO	DATE	BY	DESCRIPTION

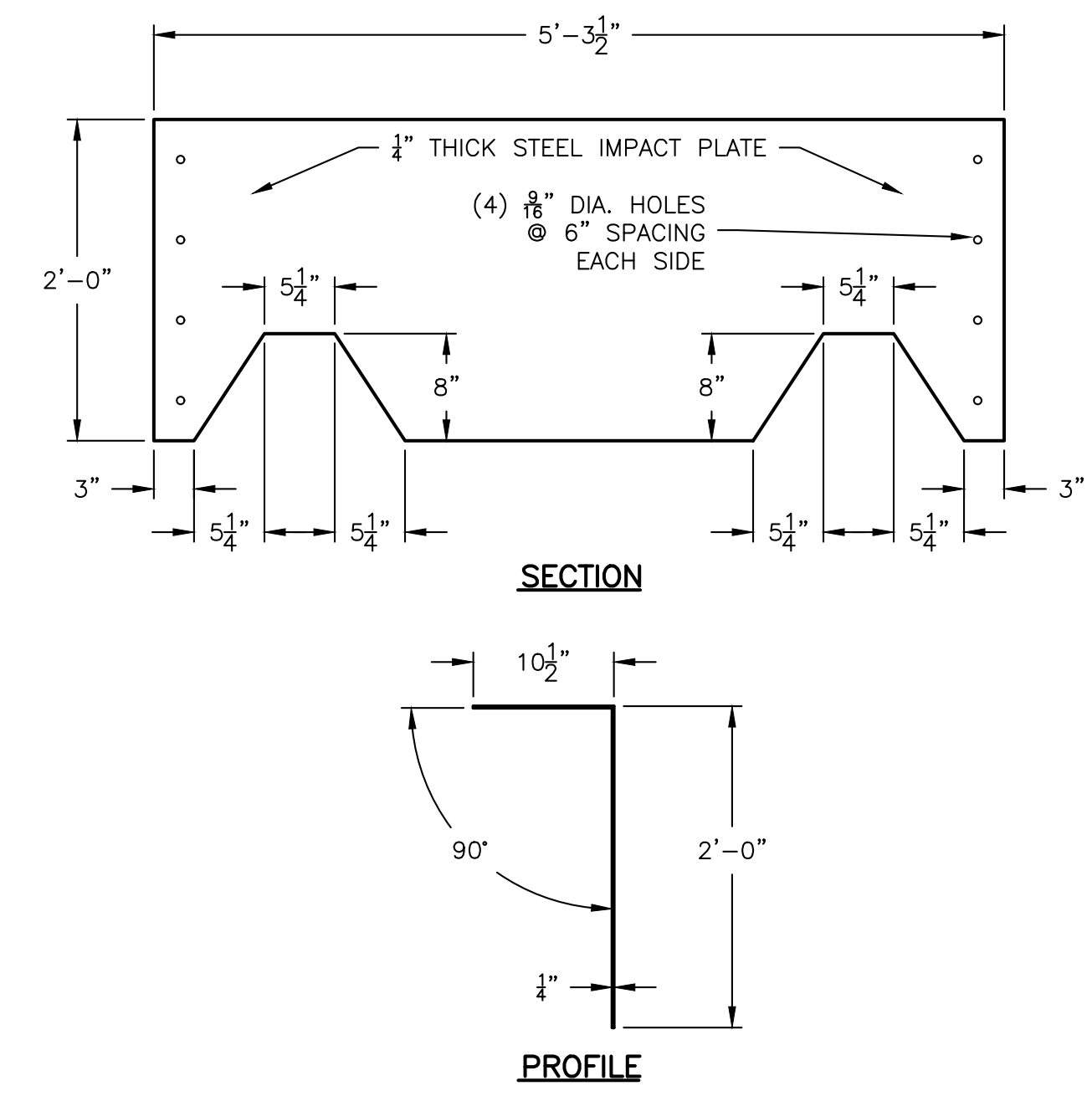
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Of: **21**
Filing No. **C-**

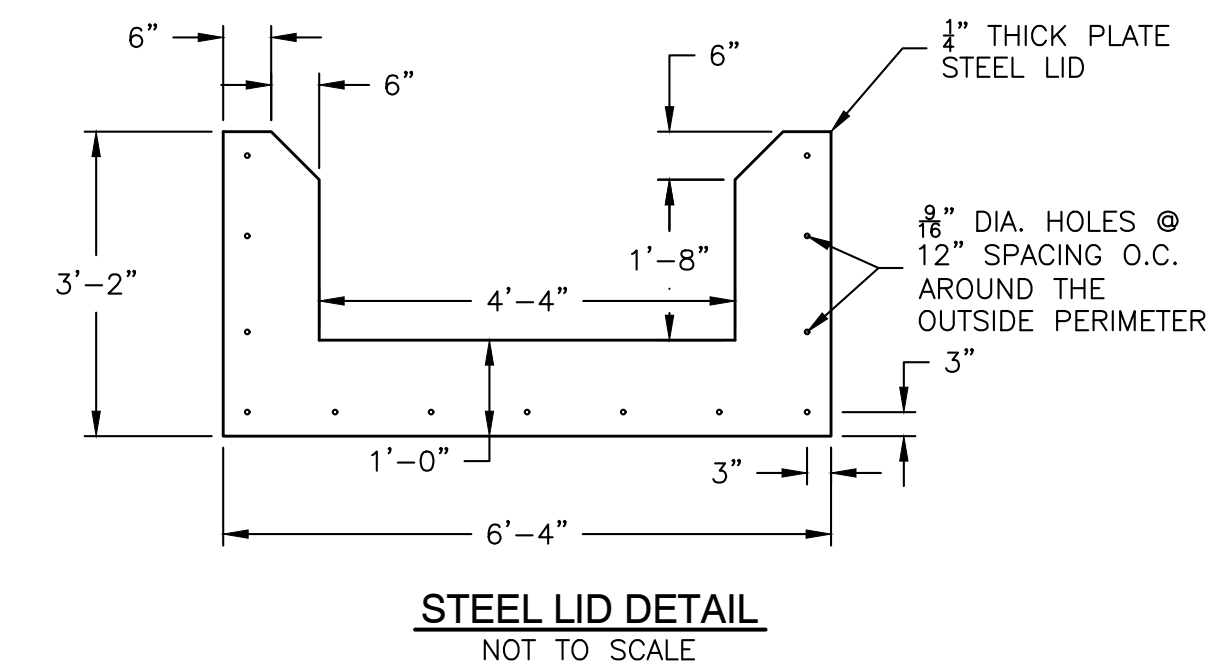
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CONCRETE IMPACT BASIN
SCALE 1" = 2'



STEEL IMPACT PLATE DETAIL
NOT TO SCALE



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**PRINCE LAKE No 1 DAM
REHABILITATION
OUTLET STRUCTURE
DETAILS**

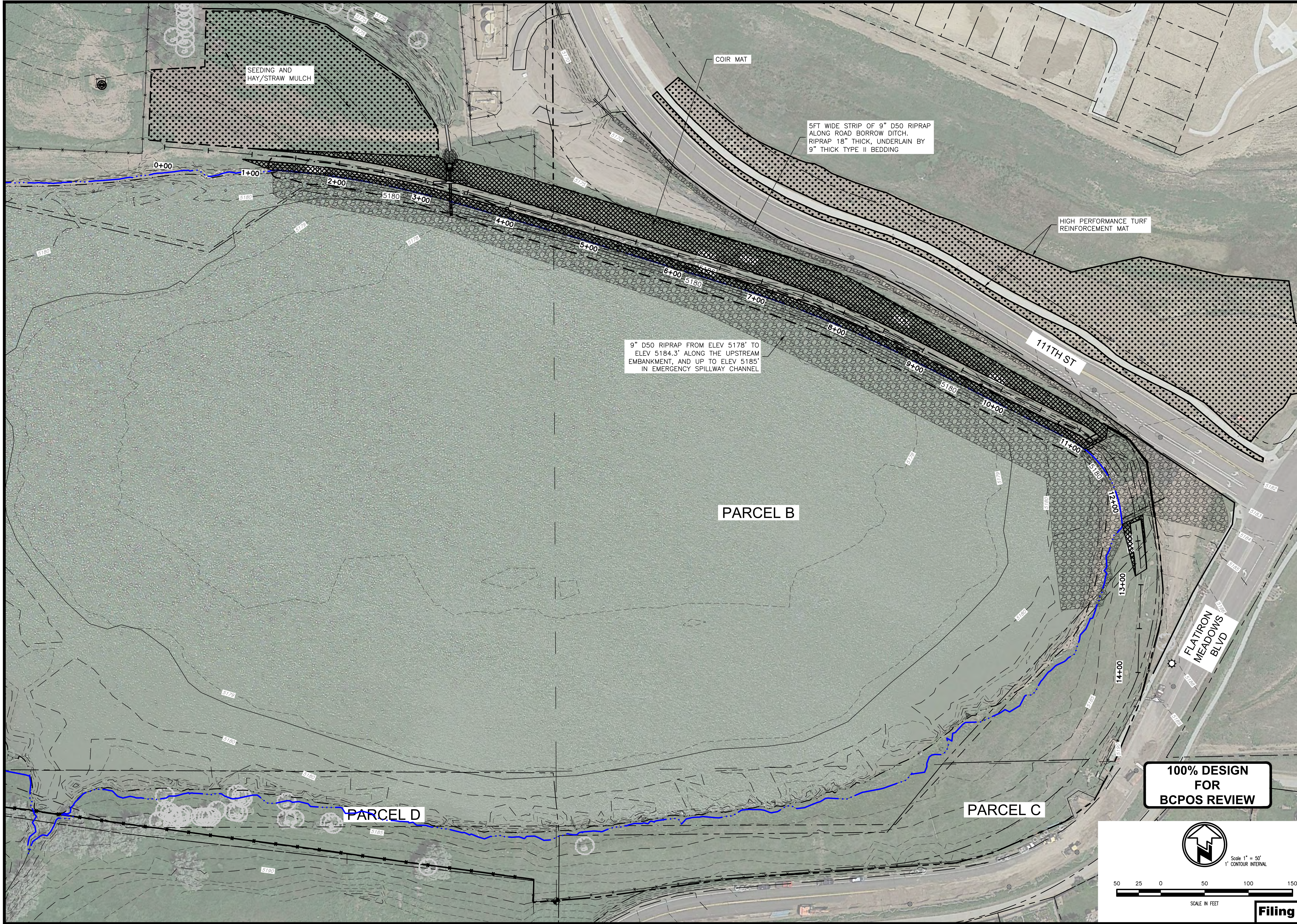
**BOULDER COUNTY PARKS AND
OPEN SPACE DEPARTMENT**

REVISIONS			
NO	DATE	BY	DESCRIPTION

Date: 22/DEC/22
Job No: 21-129
Drawn: LD/TH
Design: SS
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Of: **21**

Filing No. **C-**



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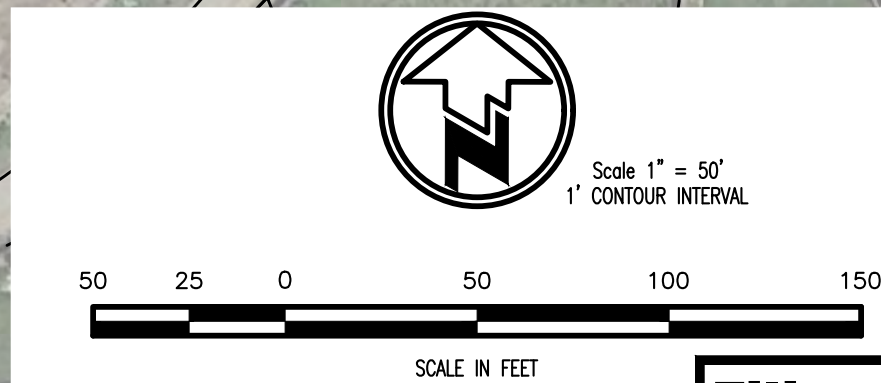
PRINCE LAKE No 1 DAM REHABILITATION
SITE RESTORATION

BOULDER COUNTY PARKS AND OPEN SPACE DEPARTMENT

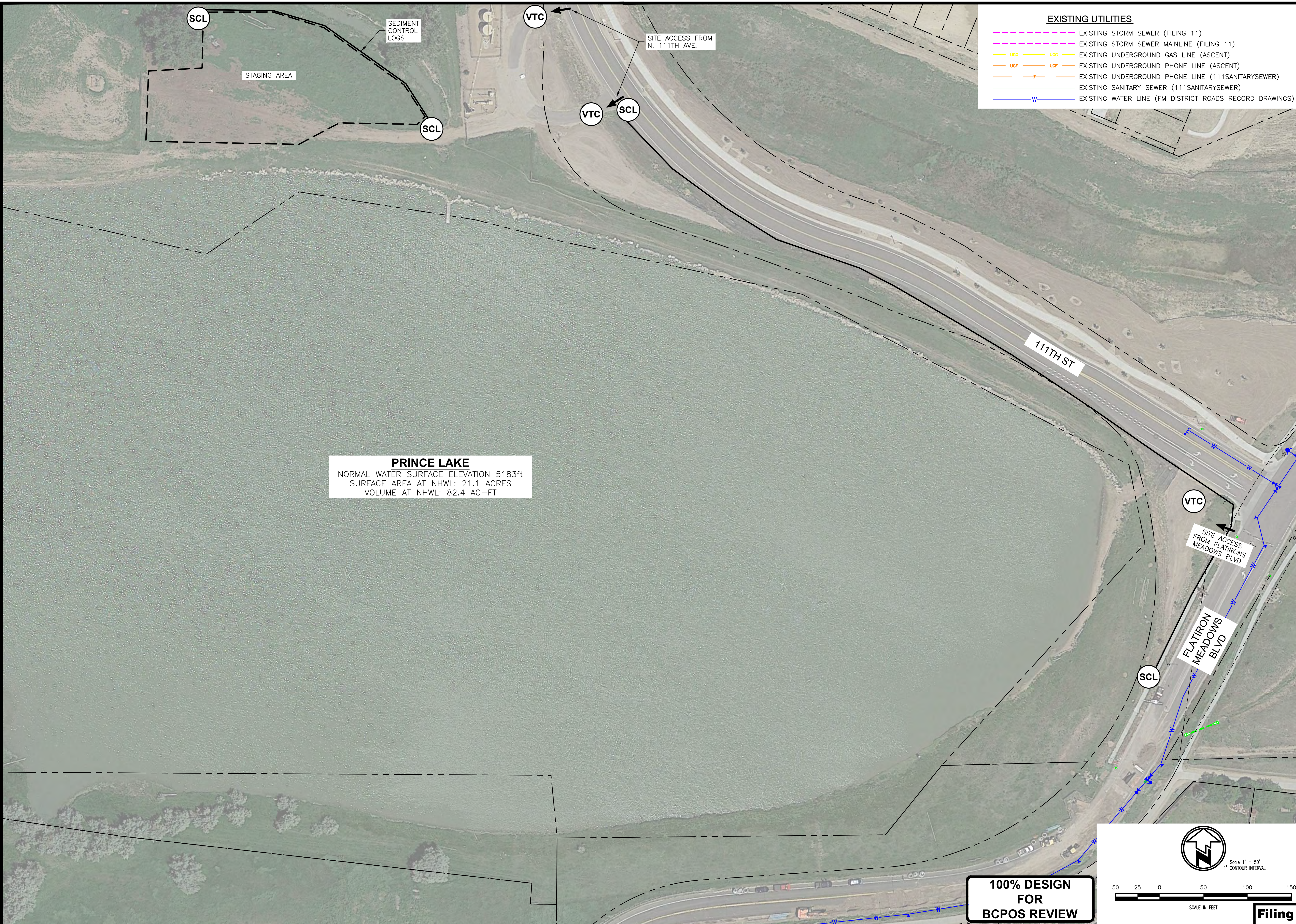
REVISIONS				
NO	DATE	BY	CHK'D	DESCRIPTION

Date: 22/DEC/22
 Job No: 21-129
 Drawn: LD/TH
 Design: SS
 Checked: TO
 Scale: 1" = 50'

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Sheet: **20**
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PRINCE LAKE
 NORMAL WATER SURFACE ELEVATION 5183ft
 SURFACE AREA AT NHWL: 21.1 ACRES
 VOLUME AT NHWL: 82.4 AC-FT

- EXISTING UTILITIES**
- EXISTING STORM SEWER (FILING 11)
 - EXISTING STORM SEWER MAINLINE (FILING 11)
 - EXISTING UNDERGROUND GAS LINE (ASCENT)
 - EXISTING UNDERGROUND PHONE LINE (ASCENT)
 - EXISTING UNDERGROUND PHONE LINE (111SANITARYSEWER)
 - EXISTING SANITARY SEWER (111SANITARYSEWER)
 - EXISTING WATER LINE (FM DISTRICT ROADS RECORD DRAWINGS)

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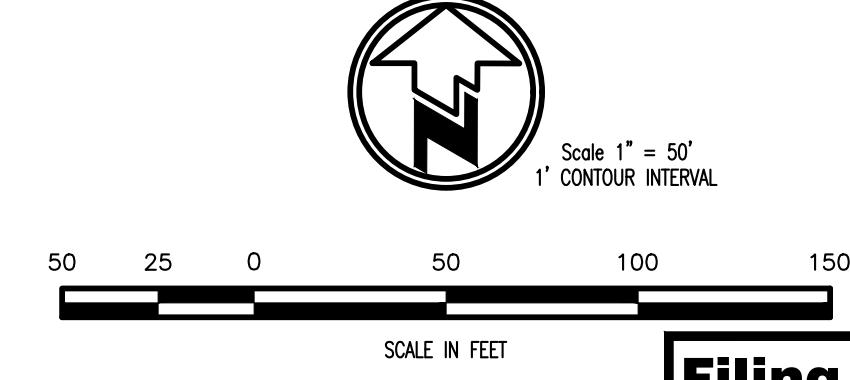
PRINCE LAKE No 1 DAM REHABILITATION
EROSION AND SEDIMENT CONTROL PLAN

BOULDER COUNTY PARKS AND OPEN SPACE DEPARTMENT

NO	DATE	BY	CHK'D	DESCRIPTION

Date: 22/DEC/22
 Job No: 21-129
 Drawn: LD/TH
 Design: SS
 Checked: TD
 Scale: 1" = 50'

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Sheet: **21**
 Of: **21**
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Community Planning & Permitting

Courthouse Annex • 2045 13th Street • Boulder, Colorado 80302

Mailing Address: P.O. Box 471 • Boulder, Colorado 80306 •

Tel: 303-441-3930 • www.BoulderCounty.gov

February 27, 2023

TO: Abigail Scheuermann, Planner I; Community Planning & Permitting,
Development Review Team - Zoning

FROM: Anita Riley, Principal Planner; Community Planning & Permitting,
Development Review Team – Access & Engineering

SUBJECT: Docket # LU-23-0003: Prince Lake No. 1 Dam Rehabilitation Project
2595 North 111th Street

The Development Review Team – Access & Engineering staff has reviewed the above referenced docket and has the following comments:

Access and Use of Right-of-Way

1. The primary accesses for the subject property, and two of the accesses proposed for construction access, is located at North 111th Street, a paved Town of Erie owned and maintained right-of-way (ROW). Legal Access has been demonstrated via adjacency to this public ROW.
2. An additional construction access is proposed at Flatiron Meadows Boulevard, near the North 111th Street intersection. Staff recommends this access be located as far south from the intersection as possible in order to reduce potential traffic conflicts. The applicant must work with the Town of Erie to obtain all necessary approvals and permits for this access.

At building permit, the applicant must demonstrate that all necessary approvals and permits for the construction access at Flatiron Meadows Boulevard have been obtained.

3. The application describes the use of North 111th Street right-of-way to convey water flow should there be a need to activate the spillway. This use of the right-of-way in this manner necessitates improvements in the form of riprap and turf reinforcement mat at the borrow ditches. A toe drain from the reservoir is also expected to discharge to the storm sewer in the right-of-way as well.

At building permit, the applicant must demonstrate that all necessary approvals and permits for construction in the Town of Erie right-of-way have been obtained.

Construction Activities and Hauling

4. The plans submitted noted that site access and construction hours will be limited to 8:00 AM to 5:00 PM. Hours of hauling on Boulder County roads shall be from 8:30 AM to 4:00 PM to limit impacts on regular vehicular traffic, especially during peak commuter periods. The applicants must adhere to any construction and hauling restrictions required by the Town of Erie.
5. The applicant must provide information regarding the number of hauling trips, routes, and type of trucks to be used for the project that occur in unincorporated Boulder County.

At building permit, the applicant must provide an acceptable haul route map. The map must indicate the type and weight of trucks to be used and the location and weight allowances for all minor and major bridge structures traversed.

6. The applicant may need to obtain an Oversize/Overweight permits from the Public Works Department for use of oversize or overweight vehicles on the County transportation system.

Stormwater

7. The subject property is not located in an urbanized area.
8. A Boulder County Stormwater Quality Permit (SWQP) is required for the work that occurs in unincorporated Boulder County on the reservoir site. The SWQP application shall be submitted with any building or grading permit applications and obtained prior to any work beginning on this project. The applicant must work with the Town of Erie to obtain all appropriate approvals and permits related to stormwater in the Town of Erie.

At building permit, the applicant must submit a Stormwater Quality Permit with the building permit application.

9. Boulder County and the Town of Erie will coordinate stormwater permit monitoring during construction.

This concludes our comments at this time.



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Building Safety & Inspection Services Team

MEMO

TO: Abigail Scheuermann, Planner I
FROM: Michelle Huebner, Plans Examiner Supervisor
DATE: February 15, 2023

RE: Referral Response, LU-23-0003: Prince Lake No. 1 Dam Rehabilitation Project.
Limited Impact Special Use review to permit 22,532 cubic yards of non-foundational earthwork for the rehabilitation of Prince Lake No. 1 Dam on an approximately 4.34-acre parcel along North 111th Street.

Location: 2595 North 111th Street

Thank you for the referral. We have no conflicts with the proposal.

If the applicants should have questions or need additional information, we'd be happy to work with them toward solutions that meet minimum building code requirements. Please call (720) 564-2640 or contact us via e-mail at building@bouldercounty.org

B3

Attachment B

Scheuermann, Abigail

From: Carden, Timothy
Sent: Friday, February 24, 2023 3:41 PM
To: Scheuermann, Abigail
Cc: Northrup, Elizabeth (Liz)
Subject: RE: Referral Packet & Public Notice for LU-23-0003: Prince Lake No. 1 Dam Rehabilitation Project at 2595 N. 111th Street

Hello Abigail,

Thank you for the opportunity to review LU-23-0003. I have completed my review of the referral packet and as proposed this project should not impact the conservation values of the nearby Horst Estate NUPUD conservation easement, or the Nervig conservation easement.

Best,

Tim Carden | Conservation Easement Stewardship Specialist
Boulder County Parks & Open Space
Pronouns: he/him/his
5201 St. Vrain Road
Longmont, CO 80503
303-413-7533 (office)
tcarden@bouldercounty.org
[Boulder County Open Space Website](#)



New: Boulder County has a new website: [BoulderCounty.gov](https://www.bouldercounty.gov)! Bookmark it today. Email addresses will transition at a later date.

From: Goldstein, Andrew <agoldstein@bouldercounty.org>
Sent: Wednesday, February 8, 2023 8:50 AM
To: #AssessorReferral <AssessorReferral@bouldercounty.org>; #CAREferral <CAreferral@bouldercounty.org>; Hatchimonji, David <dhatchimonji@bouldercounty.org>; #CEReferral <CEreferral@bouldercounty.org>; Johnson, Curtis <cjohnson@bouldercounty.org>; Allshouse, Alycia <aallshouse@bouldercounty.org>; BDRCO@xcelenergy.com; Donna.L.George@xcelenergy.com; mhelmer@erieco.gov; dbach@erieco.gov; Jana Easley <Jana.Easley@lafayetteco.gov>; Planning@lafayetteco.gov; planning@louisvilleco.gov; kdean@louisvilleco.gov; Vanessa McCracken <bldrvalleyandlongmontcds@gmail.com>; cdphe_localreferral@state.co.us; sarah.brucker@state.co.us; DenverRegulatoryMailbox@usace.army.mil; prevention@mvpfd.org; Atherton-Wood, Justin <jathertonwood@bouldercounty.org>; Milner, Anna <amilner@bouldercounty.org>; Moline, Jeffrey <jmoline@bouldercounty.org>; Abner, Ethan <eabner@bouldercounty.org>; Hippely, Hannah <hhippely@bouldercounty.org>; Sheehan, Jack <jsheehan@bouldercounty.org>; Vaughn, Andrea <avaughn@bouldercounty.org>; Cavaleri, Keli <kcavaleri@bouldercounty.org>; Flax, Ron <rflax@bouldercounty.org>; Frederick, Summer <sfrederick@bouldercounty.org>; HealthWaterQuality-EnvironmentalBP LU <HealthWQ-EnvironBPLU@bouldercounty.org>; Huebner, Michelle <mhuebner@bouldercounty.org>; Sanchez, Kimberly

Attachment B

<ksanchez@bouldercounty.org>; Transportation Development Review <TransDevReview@bouldercounty.org>; West, Ron <rowest@bouldercounty.org>

Cc: Scheuermann, Abigail <ascheuermann@bouldercounty.org>

Subject: Referral Packet & Public Notice for LU-23-0003: Prince Lake No. 1 Dam Rehabilitation Project at 2595 N. 111th Street

Please find attached the public notice for *LU-23-0003: Prince Lake No. 1 Dam Rehabilitation Project at 2595 N. 111th Street*. Please [click here](#) to access the full referral packet.

Please return responses and direct any questions to [Abigail Scheuermann](#) by *February 24, 2023*. (Boulder County internal departments and agencies: Please attach the referral comments in Accela.)

All the best,

Andrew Goldstein (pronouns: he/him/his) | Administrative Technician

Planning Division | Boulder County Community Planning & Permitting

P.O. Box 471, Boulder, CO 80306 | Courthouse Annex—2045 13th St., Boulder, CO 80302

agoldstein@bouldercounty.org | (303) 441-3930 | www.boco.org/cpp

My usual working hours are Monday-Thursday, 7:00 a.m.-5:30 p.m.



Attachment B



COLORADO
Division of Water Resources
Department of Natural Resources

February 23, 2023

Abigail Scheuermann
Boulder County Land Use Department
Transmission via email: ascheuermann@bouldercounty.org

Re: Prince Lake No. 1 Dam Rehabilitation, Docket LU-23-0003
Part of the SE 1/4 of the NE 1/4, Section 27 and part of the W 1/2 of the W 1/2 of Section 26, Township 1 North, Range 69 West, 6th P.M.
Water Division 1, Water District 6

Dear Abigail Scheuermann:

We have reviewed the February 8, 2023 above referenced proposal for a Limited Impact Special Use review to permit 22,532 cubic yards of non-foundational materials for the rehabilitation of Prince Lake No. 1 Dam on approximately 24.34 acres. The project will take place on Boulder County open space.

Extensive earthwork will take place to rehabilitate the dam, and improve the operational facility of the reservoir. Approximately 22,532 cubic yards of material will be used.

If the proposed earth/grading activities of this project result in the diversion, collection, or storage of stormwater; or expose groundwater, then the proposed project would also require a plan for augmentation. In addition, should any dewatering occur, a well permit or Notice of Intent for a Dewatering Well would also need to be obtained.

The removal, repair, and construction of man-made structures resulting in the diversion or storage of water are within the Division of Water Resources' statutory authority to administer water, and should be coordinated with the local water commissioner. **We therefore recommend that the applicant consult with the District 6 Water Commissioner, Jason Smith, at (303) 947-3523 or Jason.Smith2@state.co.us, prior to commencing construction activities.**

Should you or the applicant have any questions, please contact me at (303) 866-3581 x8216 or at ailis.thyne@state.co.us.

Sincerely,

Ioana Comaniciu, P.E.
Water Resources Engineer

Ec: Jason Smith, District 6 Water Commissioner
Referral file no. 30656

B6





Parks & Open Space

5201 St. Vrain Road • Longmont, CO 80503
303-678-6200 • POSinfo@bouldercounty.org
www.BoulderCountyOpenSpace.org

TO: Abigail Scheuermann, Community Planning & Permitting Department
FROM: Ron West, Natural Resource Planner
DATE: February 24, 2023
SUBJECT: Docket LU-23-0003, POS Prince Lake #1, 2595 111th Street

Site Conditions

Staff has reviewed the submitted materials, and has visited the location many times in the past. The existing conditions of the dam are highly disturbed, both from the original construction, on-going maintenance, and subsequent adjacent construction. Existing plant cover is primarily non-native smooth brome and common weed species.

County Comprehensive Plan Designations

The parcel has the following designations in the Boulder County Comprehensive Plan, and from other resource inventories.

- Public Lands – county open space, Eddy property
- Significant Agricultural Lands of National Importance – minimal
- Wetlands
- Riparian Areas

Discussion

Staff does not expect significant natural resource impacts from the proposal. The area of construction has been repeatedly disturbed in the past and there are no or very limited resources of concern at the dam site/construction area itself.

Some immediately adjacent lands, on the edges of the reservoir, are designated as Significant Agricultural Lands, however much of these are either now within the Town of Erie, have been altered to stormwater drainage systems, or are to remain in production (the latter for example on the northwest side of the reservoir).

Much of the riparian and wetland areas shown on Comprehensive Plan mapping is actually built-in “buffers” surrounding the original data. Therefore, these areas are not as extensive as indicated. Some of these areas have already been developed – within the Town of Erie. The narrow areas of wetland and riparian on the reservoir shorelines would remain, and could become better established with more regulated control of reservoir waters.

Attachment B

Staff has several questions on the application:

Page 1 of the narrative states that the dam was originally built in 1879, while p. 4 states 1893. Perhaps the latter date was a re-building of the dam.

Page 2 states that after completion of the project, "...the Normal Storage Capacity will be 82 ac-ft," while p. 4 states that it would store "...80.4 ac-ft of decreed storage rights." What is the difference?

Page 2, and other pages, mention "High Performance Turf Reinforcement Mat (TRM)," for areas east of 111th Street. Sheet 20 shows rather extensive areas of TRM. Staff believes there are different types of this material, and more specific information is required. Is it a (theoretically) "permanent" treatment, and doesn't it break down over time? Do weed species grow on it, again, over time as soil blows in? And if the latter, why not seed it, and/or use a type that allows for seeding? Staff understands that this is within the Town of Erie, but more details should be submitted.

Page 4 states that new material necessary to raise the dam is to be "...similar to the material already in the existing embankment, i.e., clayey to silty sand." Yet Table 2, p. 7, calls for 3650 cubic yards of "un-classified" fill. To staff, un-classified fill means that there are no specifications on it. Where would this material come from, and how would it be treated to minimize importation of noxious weed seeds? Also in Table 2, 567 cubic yards of imported topsoil is indicated. Where on the site would this be used, why is it necessary, and how would it not import noxious weed seeds?

Both p. 7 and Sheet 20 show "hay/straw mulch." Hay cannot be used; it contains seeds – most often of non-native smooth brome. Any straw mulch or straw bales used must be certified weed-free.

Page 8 states that, "If [federal money is] awarded, NEPA compliance would be required." What is the timeframe on this process and who would complete it?

Recommendations

- All of the above questions and clarifications must be addressed.
- A Revegetation Plan is required that includes native grass species to be used, an explanation of how topsoils will be stockpiled and reused, mapped delineation of all disturbance areas (this includes construction staging areas), locations of silt fence or erosion control logs down slope of all disturbed areas, and matting requirements where necessary. Some of this information is in the application, but not all. The POS plant ecology staff will provide/review species lists. Would container plantings, in addition to grasses, be planted?
- The removal of Russian-olive trees (and systemic herbicide treatment of stumps) on the south shore of the reservoir should be added to the contract.
- Prior to transporting equipment to the site, all machinery must be cleaned to remove soil/mud and attendant weed seeds.

Attachment B

- Prior to transporting equipment to the site, all machinery that would come in contact with water must be cleaned to remove aquatic nuisance species in accordance with State of Colorado ANS regulations. This involves either steam (heat) or chemical cleaning, not just power washing.
- As called for in the county's 2016 Storm Drainage Criteria Manual, biodegradable hydraulic fluids must be used in equipment and machinery used in the water.
- Who is responsible for seeing that the conditions of approval, and commitments of record, are incorporated into the construction specifications for the project?

Attachment B



Right of Way & Permits

1123 West 3rd Avenue
Denver, Colorado 80223
Telephone: **303.571.3306**
Facsimile: 303. 571.3284
donna.l.george@xcelenergy.com

February 24, 2023

Boulder County Community Planning and Permitting
PO Box 471
Boulder, CO 80306

Attn: Abigail Scheuermann

RE: Prince Lake No. 1 Dam Rehabilitation Project, Case # LU-23-0003

Public Service Company of Colorado's (PSCo) Right of Way & Permits Referral Desk has determined **there is a possible conflict** with **Prince Lake No. 1 Dam Rehabilitation**. Please be aware PSCo has existing underground electric distribution facilities to a street light in the area of the proposed reinforced roadside ditch. Note that proper clearances must be maintained including ground cover that should not be modified from original depths. Contact Colorado 811 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.

Donna George
Right of Way and Permits
Public Service Company of Colorado dba Xcel Energy
Office: 303-571-3306 – Email: donna.l.george@xcelenergy.com

Scheuermann, Abigail

From: Christine Chicago <christine.chicago@gmail.com>
Sent: Friday, March 10, 2023 11:20 AM
To: LU Land Use Planner
Subject: [EXTERNAL] Questions re: Docket LU-23-0003

Hello Ms. Scheuermann,

Thank you for the notification of this upcoming Prince Lake No. 1 Dam project. Would you please address the following questions:

1. How long will Prince Lake No. 1 be drained of irrigation water and how will the Spring 2024 irrigation needs of the farmlands be met? If the lake is drained for the entire length of the projected 8-month construction schedule with an estimated start date of Sept or Oct of 2023, then the Spring irrigation needs of the nearby farms would be negatively impacted.
2. Can the construction work be expedited so that it can be completed in less than 8 months?
3. What are the plans to mitigate harm to the pair of Bald Eagles who use the nest structure? Will the nest structure be built elsewhere? Has a bird and wildlife expert provided input on how to mitigate negative impacts during construction? If not, will Boulder County engage such an expert to provide specifications in the construction bid documents to not only prevent harm, but incentivize the contractor to take appropriate care during construction?
4. Please elaborate on the specifications in the construction bid documents to minimize negative impacts to N. 111th Street, specifically lane closures, for specific times of day and for how long, so that commutes to private and public schools are not delayed.

Thank you,
Christine Hackett
798 Limestone Drive, Erie, CO 80516
christine.chicago@gmail.com

Scheuermann, Abigail

From: Keith Bateman <batemanfarms@gmail.com>
Sent: Wednesday, March 8, 2023 11:19 AM
To: Scheuermann, Abigail
Subject: [EXTERNAL] Prince lake

The information on docket LU-23-0003 is incorrect there are also two private parties who have water storage and their irrigation water during season also flow through the lake.

also I believe the acre foot of storage is only one decree there should be two for storage then a separate storage right off of the groundwater that flow into the pond from the south.

Keith Bateman

Scheuermann, Abigail

From: Maxine Hecht <maxine.hecht@gmail.com>
Sent: Sunday, March 12, 2023 12:53 PM
To: Scheuermann, Abigail
Subject: [EXTERNAL] Docket LU-23-0003

Hi,

Just wondering the impact of this project to the Flatiron Meadows development. I live on Limestone Dr right off of N. 111th st. The map they mailed looks like work will go right through the neighborhood. Other maps not so much. Where is the soil coming from that will be used?

I am a board member at Flatiron Meadows Association. My questions are being asked as a homeowner and not a board member. These questions are not related to my board role.

Thanks.
Maxine Hecht

Attachment C

Scheuermann, Abigail

From: SONIA OWENS <travellady15@hotmail.com>
Sent: Monday, March 13, 2023 12:31 PM
To: Scheuermann, Abigail
Subject: [EXTERNAL] from sonia and helena owens

Hello Abigail,
Please send link to project LU-23-0003 to

SONIA AND HELENA OWENS AT 2839 PRINCE CIR. ERIE CO.

E-MAIL travellady15@hotmail.com

Attachment C

Scheuermann, Abigail

From: tim mueller <tjmueller99@comcast.net>
Sent: Wednesday, March 8, 2023 7:56 AM
To: LU Land Use Planner
Cc: tim mueller
Subject: [EXTERNAL] Request for Information re: Docket #: LU-23-0003 Prince Lake #1 Dam Rehab Project

Hello,

We received a letter from Community Planning & Permitting informing us of an upcoming BOCC Hearing scheduled on May 2. I tried to find more information about this docket #LU-23-0003 at the link given in the letter but there is no detail available and the hearing isn't on the event calendar.

My wife and I have a home which backs up to the open space immediately east of Erie lake. We are very interested in what scope of work is planned, what part of the open space will be impacted by the dam rehabilitation and what commitments the County will make to repair any open space vegetation impacted by the project.

Thank You,

Tim

Tim Mueller
303-888-2638