Permit No. 2024-088 Received complete: July 29, 2024

Applicant: Tom Swenson; City of Edina

Consultant: Sarah Risius; WSB

Project: Courtney Fields Improvements

Location: 7503 Ikola Way, Edina, MN

Applicable Rule(s): 3, 4, and 5

Reviewer(s): Azeemuddin Ahmed and Louise Heffernan; Barr Engineering Co.

General Background & Comment

The applicant proposes relocating batting cages, constructing a play area, and trail improvements at Courtney Fields within the Braemar Park complex located at 7503 Ikola Way in Edina. Additional site improvements including parking lot expansion, relocation of storage buildings, mill and overlay, and construction of two stormwater management facilities are proposed.

The project information includes the following:

- Total Site Area¹: 444.50 acres (Braemar Park area under City ownership)
- Disturbed Area (within the Project Limits): 39,248 square feet (0.9 acres)
- Existing Impervious Area (within the Project Limits): 87,076 square feet (2.0 acres)
- Proposed Impervious Area (within the Project Limits): 89,254 square feet (2.0 acres)
- 2.5% increase in the impervious area: 2,178 square feet (0.1 acres)
- 18.8% disturbance of the existing impervious surface: 16,379 square feet (0.4 acres)
- Regulated Impervious Area (reconstructed and net additional impervious): 18,557 square feet (0.4 acres)

Exhibits Reviewed:

- Permit Application received May 28, 2024. Email correspondence dated June 18, 2024, outlining 11 review comments and items required to complete the application. Email correspondence dated June 24, 2024, outlining 2 review comments and items required to complete the application. Email correspondence dated July 26, 2024, outlining 1 review comment and item required to complete the application.
- 2. Plans dated May 24, 2024 (received May 28, 2024), revised June 20, 2024, revised July 3, 2024, and revised July 26, 2024, prepared by WSB.

¹ The City of Edina property includes numerous parcels under common or related ownership at Braemar Park. The total site area was not received under this application or previously permitted activities. Adjustment of the total site area in the context of an overall stormwater management plan for the City of Edina may be necessary, but any discrepancy that could be discovered through a detailed analysis of the redevelopment projects undertaken in the last 10 years with respect to the total site area would not affect the outcome of the analysis of the present application.

- 3. Stormwater Management Report dated May 28, 2024 (received May 28, 2024), revised June 20, 2024, revised July 3, 2024, and revised July 26, 2024, prepared by WSB.
- 4. Geotechnical Evaluation dated March 28, 2024, prepared by WSB.
- 5. Electronic HydroCAD modeling received on May 28, 2024, revised June 20, 2024, and revised July 3, 2024, prepared by WSB.
- 6. Electronic MIDS modeling received on May 28, 2024, revised June 20, 2024, and revised July 3, 2024, prepared by WSB.
- 7. Wetland Delineation Report dated May 21, 2024 (received May 28, 2024), prepared by WSB.
- 8. WCA Notice of Decision issued July 25, 2024, approving the wetland boundary and type.
- 9. NMCWD review comment responses document dated June 20, 2024, prepared by WSB.

The application with the submittal items above is complete.

3.0 Wetlands Management

The District's Wetland Management Rule 3.0 applies to the project because a wetland is located downgradient from the land-disturbing activities and a District permit is required under Rule 4.0 (Rule 3.4). The City of Edina is the Local Governing Unit (LGU) responsible for administering the requirements of the Wetland Conservation Act (WCA) in Edina.

Rule 3.4 requires buffer around the entirety of wetlands disturbed by an activity and on the portion of a wetland downgradient from an activity. No wetland impacts are proposed by the project. Portions of a WCA-regulated wetland are downgradient from land-disturbing activities.

A MnRAM assessment was prepared by WSB and submitted on May 28, 2024. Based on the comparison of the function and values presented in Appendix 3b of the District's Rules, the site wetlands were determined to be medium value, requiring a 40-foot average and 20-foot minimum buffer width per subsection 3.4.1b criteria. The NMCWD engineer agrees with the MnRAM results and NMCWD value determinations. The WSB plans dated July 26, 2024, identify a 40-foot average buffer extending from the wetland edge downgradient from land-disturbing activities. The submittal demonstrates and the engineer finds the project in conformance with subsection 3.4.1b criteria.

In accordance with Rule 3.4.5, buffer markers at the edges of the buffer area are required. As shown on the plans, the markers are placed at an interval of no more than 200 feet, in accordance with Rule 3.4.5 criteria.

Rule 3.4.6 requires buffer areas planted with native vegetation and maintained to retain natural resources and ecological value, with buffer areas not to be cultivated, cropped, mowed, or fertilized, except for periodic cutting to promote the health of the buffer. The applicant proposes to manage the buffer area in a naturalized condition and eliminate invasive species. In accordance with the requirements of subsection 3.4.7 for the maintenance of the wetland buffers, a maintenance agreement is required to be executed with the NMCWD, as identified by the rule-specific permit condition in the *Recommendations* section of this report.

Rule 3.5 stormwater treatment does not impose requirements for the project because the use of the wetland for stormwater treatment as part of project is not proposed. Stormwater treatment is provided prior to discharge to the wetland.

4.0 Stormwater Management

NMCWD's requirements for stormwater management apply to the project because more than 50 cubic yards of material will be disturbed and 5,000 square feet or more of surface area is altered, Rules 4.2.1a and b.

The NMCWD's Rule for Redevelopment, Rule 4.2.3, states, if the proposed activity will increase total impervious surface by 50 percent or more or will disturb 50 percent or more of the existing impervious surface on the site, the stormwater criteria will apply to the entire site. Otherwise, the criteria of section 4.3 will apply only to the disturbed, replaced, and net additional impervious surface on the project site. The proposed work under the current application is considered in aggregate with activities subject to Rule 4.2.5 Common Scheme of Development.

The project activities under the current application (Permit #2024-088), considered in aggregate with the previous projects permitted at the site, will not increase the imperviousness at the site by more than 50% and will not disturb the existing imperviousness at the site by more than 50%. There are numerous parcels under common or related ownership at the Braemar Park complex and a detailed analysis of previous projects for each parcel has not been completed. However, any discrepancy that could be discovered through a detailed analysis of the redevelopment projects undertaken in the last 10 years with respect to the total site area would not affect the outcome of the analysis of the present application. Stormwater management is required only for the net new impervious area (2,178 square feet) and newly disturbed and reconstructed areas (16,379 square feet), amounting to 0.4 acres (18,557 square feet) of regulated impervious surface.

Stormwater management for compliance with subsection 4.3.1 will be provided by two infiltration basins with underdrains to provide rate control, volume retention and water quality management for the regulated impervious area.

Rule 4.3.1b requires the 2-, 10-, and 100-year post development peak runoff rates be equal to or less than the existing discharge rates for the collection points where stormwater leaves the site. The applicant used a HydroCAD hydrologic model to simulate runoff rates. The existing and proposed 2-, 10- and 100-year frequency discharge rates are summarized in the tables below.

Peak Discharge Rates (Existing)

Location	Existing	Existing	Existing
	2-Year 24-hr	10-Year 24-hr	100-Year 24-hr
	(c.f.s.)	(c.f.s.)	(c.f.s.)
To Nine Mile Creek (North)	19.7	37.7	80.1

Peak Discharge Rates (Proposed)

Location	Proposed	Proposed	Proposed
	2-Year 24-hr	10-Year 24-hr	100-Year 24-hr
	(c.f.s.)	(c.f.s.)	(c.f.s.)
To Nine Mile Creek (North)	19.3	36.9	78.3

The proposed stormwater management plan provides rate control in compliance with the NMCWD requirements for the 2-, 10-, and 100-year events. Rule 4.3.1b is met.

The applicant has requested that the site be considered restricted under subsection 4.3.2 of the NMCWD Rules. For restricted sites, subsection 4.3.2 of requires rate control in accordance with subsection 4.3.1b and that retention and water-quality protection be provided in accordance with the following priority sequence: (a) Retention of at least 0.55 inches of runoff from the regulated impervious surface and treatment of all runoff to the standard in paragraph 4.3.1c; or (b) Retention of runoff on-site to the maximum extent practicable (MEP) and treatment of all runoff to the standard in paragraph 4.3.1c; or (c) Off-site retention and treatment within the watershed to the standards in paragraph 4.3.1a and 4.3.1c.

Boring B-1, in the geotechnical report dated March 28, 2024, by WSB identifies the soil nearest to each proposed stormwater management facility as clayey sand (SC) soils. Soil classification from the borings indicate approximately 4 inches of clayey sand topsoil underlain by clayey sand (SC). The engineer concurs with the soil boring analysis identifying the presence of site soil textures with low permeability, notwithstanding its antiquity.

Given the clayey soils that are not conducive to infiltration, the NMCWD engineer agrees that the site is restricted. Rule 4.3.2a requires the retention onsite of 0.55 inches of runoff from the regulated impervious surface of the site. A retention volume of 851 cubic feet is required from the 18,557 square feet (0.4 acres) of regulated impervious surface. A design infiltration rate of 0.06 inches per hour has been used for each stormwater management facility, conforming with infiltration rates identified in the Minnesota Stormwater Manual.

The table below summarizes the volume retention required and volume retention achieved for the proposed stormwater management facilities. The proposed project is in conformance with subsection 4.3.1a.

Volume Retention Summary

Required Volume	Provided Volume		Provided Infiltration
Retention	Retention	Infiltration Depth	Depth
(cubic feet)	(cubic feet)	Allowable* (feet)	(feet)
851	1,318	0.6	0.6

^{*}Maximum inundation depth allowable for the stormwater management facilities to draw down within 48-hours based on a design infiltration rate of 0.06 inches/hour and 40% rock voids.

With a provided infiltration depth of 0.6 feet (0.6 feet allowable) beneath the underdrain in each stormwater management facility, the required 851 cubic feet of volume retention is drawn down within the required 48-hours, complying with Rule 4.3.1a (ii).

Rule 4.5.4d (i) requires at least three feet of separation between the bottom of a stormwater management facility and groundwater. Per the geotechnical report by WSB, groundwater was encountered on the site (Boring HA-1) at an elevation of 850.2 M.S.L. The bottom of the north stormwater management facility is 853.2 M.S.L., providing a separation of 3.0 feet (to the

elevation where groundwater was encountered) The bottom of the south stormwater management facility is 856.6 M.S.L., providing a separation of 6.4 feet (to the elevation where groundwater was encountered). Rule 4.5.4d (i) is met.

NMCWD's water quality criterion requires 60% annual removal efficiency for total phosphorus (TP) and 90% annual removal efficiency for total suspended solids (TSS) from the regulated site runoff. A MIDS model was used to evaluate the proposed stormwater management facilities annual removal efficiencies. The results of the MIDS modeling are summarized in the table below. The NMCWD engineer agrees with the modeling results and the project is in conformance with Rule 4.3.1c criteria.

Annual TSS and TP Removal Summary

Pollutant of Interest	Regulated Site Loading (lbs./year)	Required Load Removal (Ibs./year)	Provided Load Reduction (lbs./year)
Total Suspended Solids (TSS)	170.4	153.4 (90%)	181.2 (>100%)
Total Phosphorus (TP)	0.9	0.6 (60%)	0.7 (78%)

Rule 4.3.4 states that all new and reconstructed buildings must be constructed such that the low floor is at least two feet above the 100-year high-water elevation or one foot above the emergency overflow of a constructed facility. Additionally, Rule 4.3.4 states that all new and reconstructed buildings must be constructed such that no opening where surface flow can enter the structure is less than two feet above the 100-year high-water elevation of an adjacent facility. Rule 4.3.4 also states that a stormwater management facility must be constructed at an elevation that ensures no adjacent habitable building will be brought into noncompliance with a standard in subsection 4.3.4.

The low floor and low opening elevation of the two proposed storage buildings adjacent to the northern stormwater management facility is 859.0 M.S.L., 1.4 feet above the northern stormwater management facility's emergency overflow elevation (857.6 M.S.L.). If the northern stormwater management facility overflows, the emergency overflow is located along the north side of the stormwater management facility and the low openings of the two storage buildings are south of the stormwater management facility. The low opening of the storage buildings is hydraulically disconnected from the northern stormwater management facility. The low floor and low opening elevation of the existing building adjacent to the southern stormwater management facility is 862.8 M.S.L., 2.2 feet above the southern stormwater management facility's modeled 100-year high-water elevation (860.6 M.S.L.). Rule 4.3.4 is met.

Subsection 4.3.6 requires the submission of a maintenance plan. All stormwater management structures and facilities must be designed for maintenance access and properly maintained in perpetuity to assure that they continue to function as designed. The applicant must enter an agreement committing to operation and maintenance of each stormwater management facility after approval of a draft by the NMCWD administrator, as identified by the rule-specific permit stipulation in the *Recommendations* section of this report.

In accordance with Rule 4.3.1a (i), where infiltration or filtration facilities, practices or systems are proposed, pre-treatment of runoff must be provided. Pretreatment will be provided by

grassed areas upstream of each stormwater management facility, complying with Rule 4.3.1a (i).

5.0 Erosion and Sediment Control

The district's requirements for erosion and sediment control apply to the project because more than 50 cubic yards of material will be disturbed and 5,000 square feet or more of surface area is altered, Rules 5.2.1a and b.

The erosion control plan prepared by WSB includes installation of perimeter erosion control (silt fence), inlet protection, and a construction entrance.

The contractor for the project will need to designate a contact who will remain liable to the district for performance under the district's Erosion and Sediment Control Rule 5.0 from the time the permitted activities commence until vegetative cover is established, in accordance with subsection 5.4.1e. NMCWD must be notified if the responsible individual changes during the permit term.

11.0 Fees

Because the applicant is a public entity, no fees are charged.

Rules 4.0 and 5.0 \$0

12.0 Financial Assurances

Because the applicant is a public entity, the NMCWD's financial assurance requirements do not apply.

Sureties for the project are:

\$0

Findings

- 1. The proposed project includes the information necessary, plan sheets and erosion control plan for review.
- 2. The proposed stormwater management facilities will provide volume retention in accordance with subsection 4.3.2a, and rate control and water quality management in accordance with subsections 4.3.1b and 4.3.1c criteria.
- 3. The proposed project will conform to Rule 5 with the fulfilment of the condition identified below. The project conforms to Rules 3 and 4.
- 4. In accordance with NMCWD Rule 4.3.6, the applicant must provide a maintenance and inspection plan that identifies the wetland buffer and protects the design, capacity, and functionality of each stormwater management facility.

Recommendation

Approval, contingent upon:

Compliance with the General Provisions (attached).

The applicant provides a name and contact information for the individual responsible for the erosion and sediment control at the site. NMCWD must be notified if the responsible individual changes during the permit term.

By accepting the permit, when issued, the applicant agrees to the following stipulations for closeout of the permit:

Compliance with the General Provisions (attached).

The work associated with the Courtney Fields Improvements at 7503 Ikola Way under the terms of Permit #2024-088 must have an impervious surface area and configuration materially consistent with the approved plans. A design that differs materially from the approved plans will need to be the subject of a request for a permit modification or new permit, which will be subject to review for compliance with all applicable regulatory requirements.

Wetland buffer markers, in accordance with rule 3.4.5, must be installed as shown on the plans.

The programmatic maintenance agreement in progress between NMCWD and City of Edina, with such amendments as determined to be necessary by the administrator, on advice and consent of NMCWD counsel. An exhibit of each stormwater management facility and the wetland buffer must also be provided for incorporation into the programmatic maintenance agreement between NMCWD and City of Edina. The exhibit may be submitted in the form of the as-built drawing.

Per Rule 4.5.6, an as-built drawing of the stormwater management facilities conforming to the design specifications, including a stage volume relationship in tabular form for each stormwater management facility, as approved by the district, must be provided.

Per Rule 12.4.1b, demonstration and confirmation that each stormwater management facility has been constructed or installed and are functioning as designed and permitted. Verification, through daily observation logs and photographs, must be provided showing each stormwater management facility used for volume retention has drawn down within 48 hours from the completion of two half-inch (approximate) separate rainfall events.

Courtney Fields Improvements

Edina, Minnesota

City Improvement Project No..... XXXXX WSB & Associates, Inc. Project No. 022715-000 Issue Date..... 06/20/2024

Courtney Fields Complex 7503 Ikola Way, Edina, MN 55439

Sheet List Table		
SHEET NUMBER	SHEET TITLE	
L1.0	COVER SHEET	
L2.0	OVERALL REMOVALS PLAN	
L2.1	REMOVALS FIELD 1	
L2.2	REMOVALS FIELD 2	
L2.3	REMOVALS FIELD 3	
L2.4	REMOVALS FIELD 4	
L2.5	REMOVALS BATTING CAGES	
L3.0	OVERALL LAYOUT PLAN	
L3.1	LAYOUT FIELD 1	
L3.2	LAYOUT FIELD 2	
L3.3	LAYOUT FIELD 3	
L3.4	LAYOUT FIELD 4	
L3.5	LAYOUT BLEACHER CONFIGURATION	
L3.6	LAYOUT BATTING CAGE	
L4.0	OVERALL GRADE PLAN	
L4.1	GRADE PLAN FIELD 1	
L4.2	GRADE PLAN FIELD 2	
L4.3	GRADE PLAN FIELD 3	
L4.4	GRADE PLAN FIELD 4	
L4.5	GRADE PLAN BATTING CAGE	
L5.0	OVERALL RESTORATION PLAN	
L5.1	RESTORATION BATTING CAGE	
L6.0	DETAILS	
L6.1	DETAILS	
L7.0	UTILITY PLAN	
L7.1	UTILITY PLAN	

THE SUBSURFACE UTILITY INFORMATION SHOWN ON THESE DRAWINGS CONCERNING TYPE AND LOCATION OF PRIVATE UTILITIES HAS BEEN DESIGNATED UTILITY QUALITY LEVEL D. THESE QUALITY LEVELS WERE DETERMINED ACCORDING TO THE GUIDELINES OF CI/ASCE 38-02, ENTITLED "STANDARD GUIDELINES FOR THE COLLECTION AND DEPICTION OF EXISTING SUBSURFACE DATA". THE CONTRACTOR IS TO DETERMINE THE TYPE AND LOCATION OF PRIVATE UTILITIES AS MAY BE DEEMED NECESSARY TO AVOID DAMAGE THERETO.

NUMBER	OHEET THEE
L1.0	COVER SHEET
L2.0	OVERALL REMOVALS PLAN
L2.1	REMOVALS FIELD 1
L2.2	REMOVALS FIELD 2
L2.3	REMOVALS FIELD 3
L2.4	REMOVALS FIELD 4
L2.5	REMOVALS BATTING CAGES
L3.0	OVERALL LAYOUT PLAN
L3.1	LAYOUT FIELD 1
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L5.1	RESTORATION BATTING CAGE
L6.0	DETAILS
L6.1	DETAILS
L7.0	UTILITY PLAN
L7.1	UTILITY PLAN

PROJECT LOCATION MAP

THIS PLAN SET HAS BEEN PREPARED FOR: City of Edina 4801 W 50th St, Minneapolis, MN 55424





AS SHOWN CHECK BY:

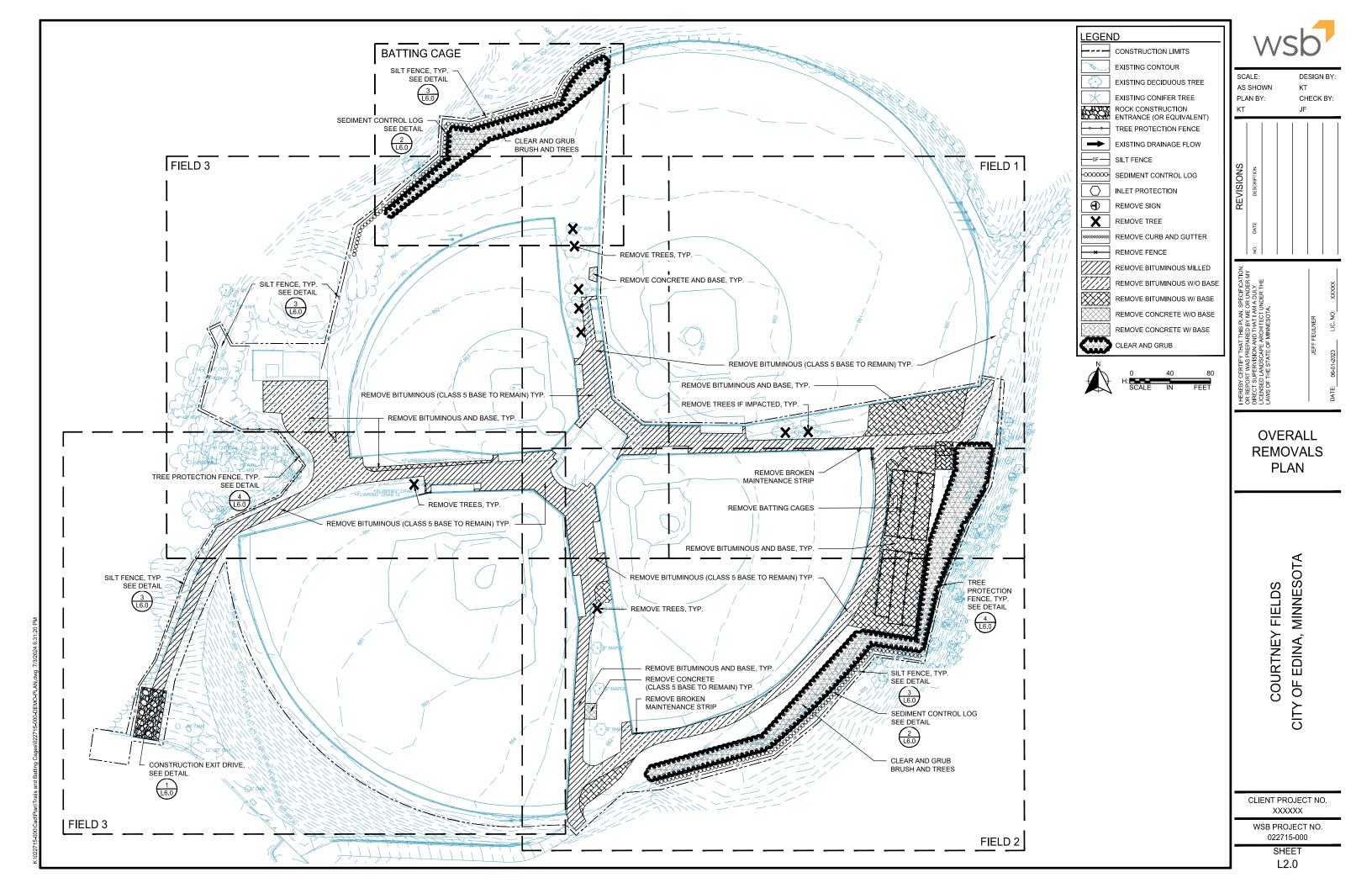
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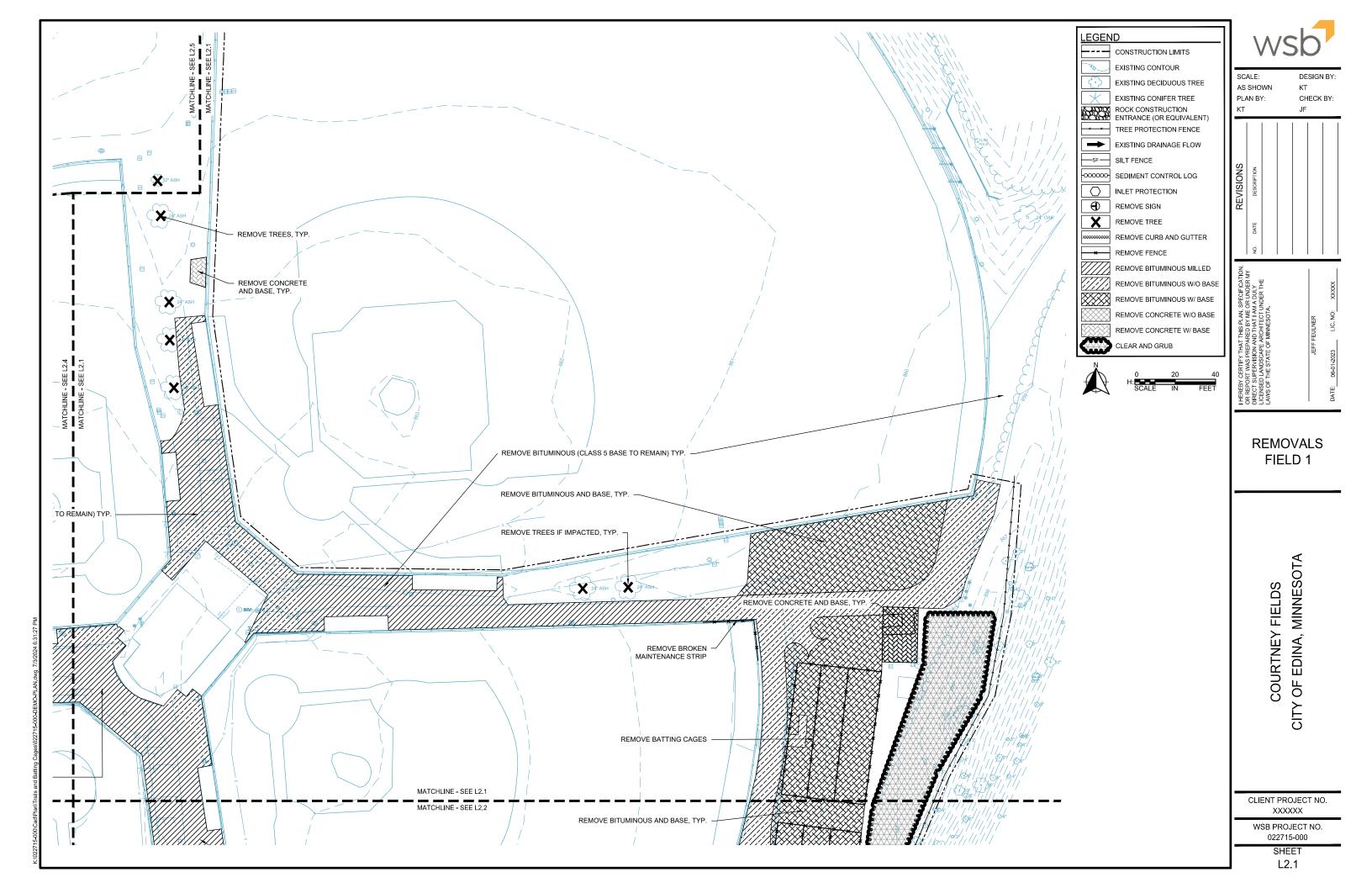
CITY OF EDINA, MINNESOTA COURTNEY FIELDS

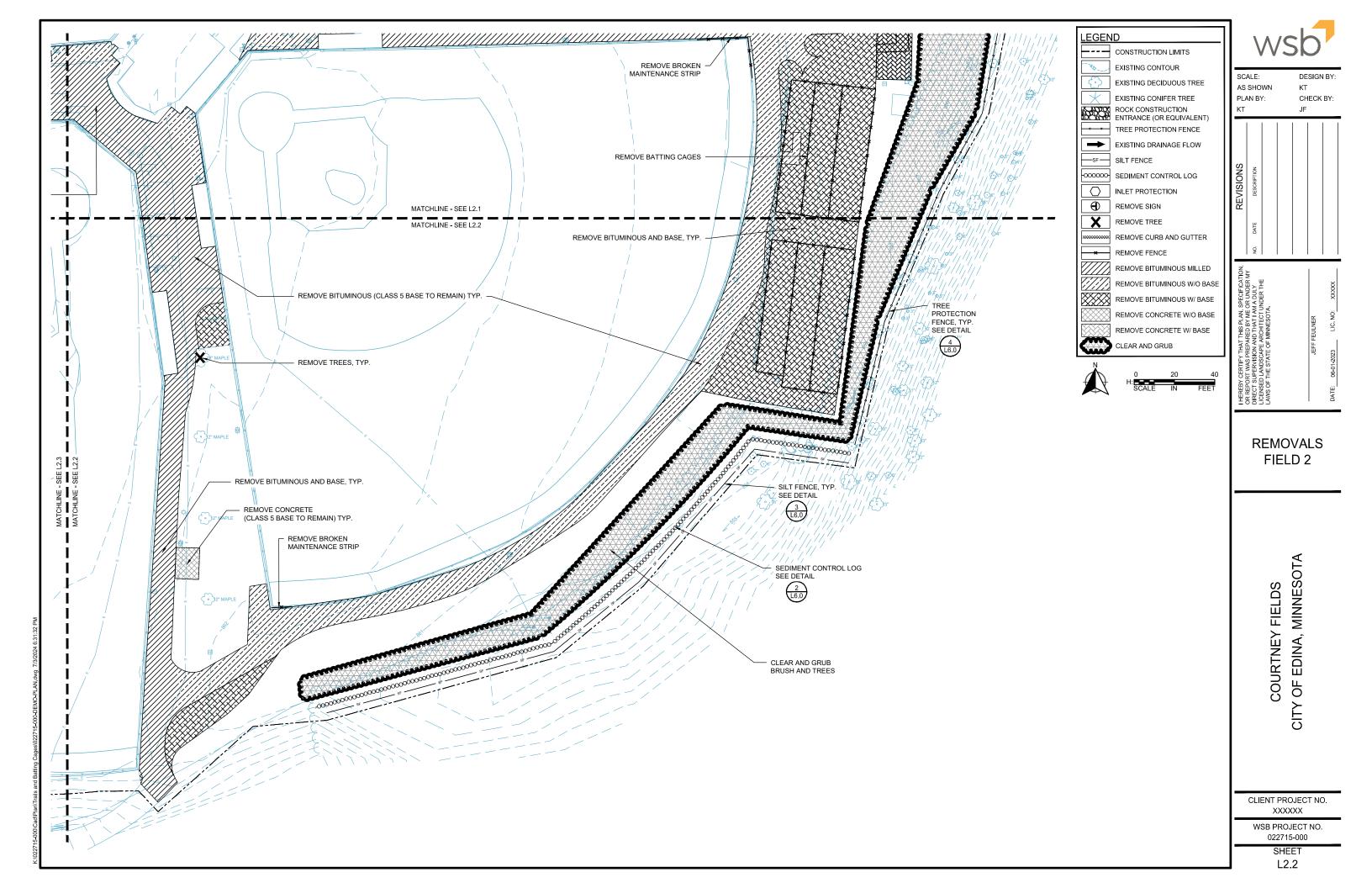
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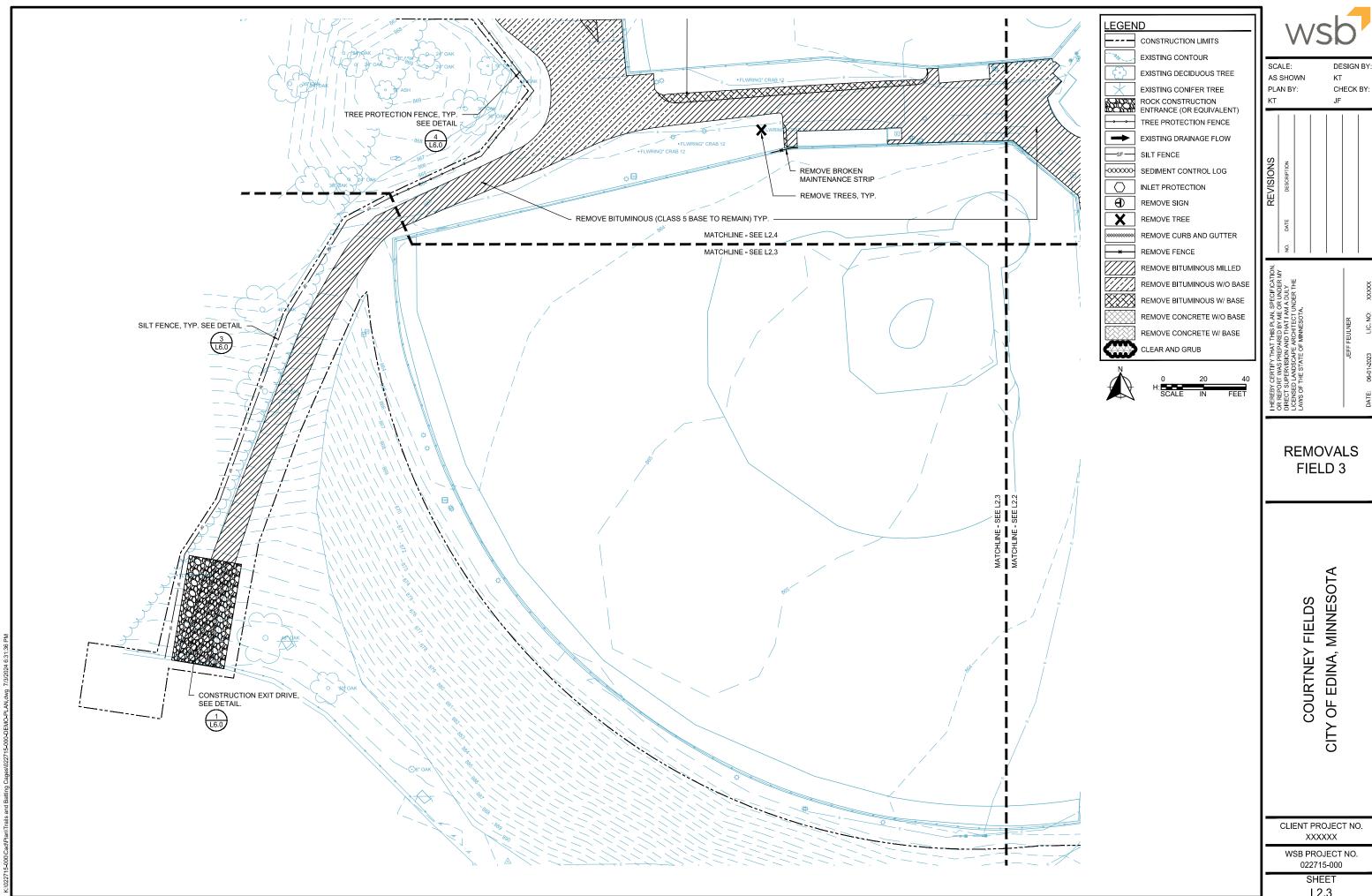
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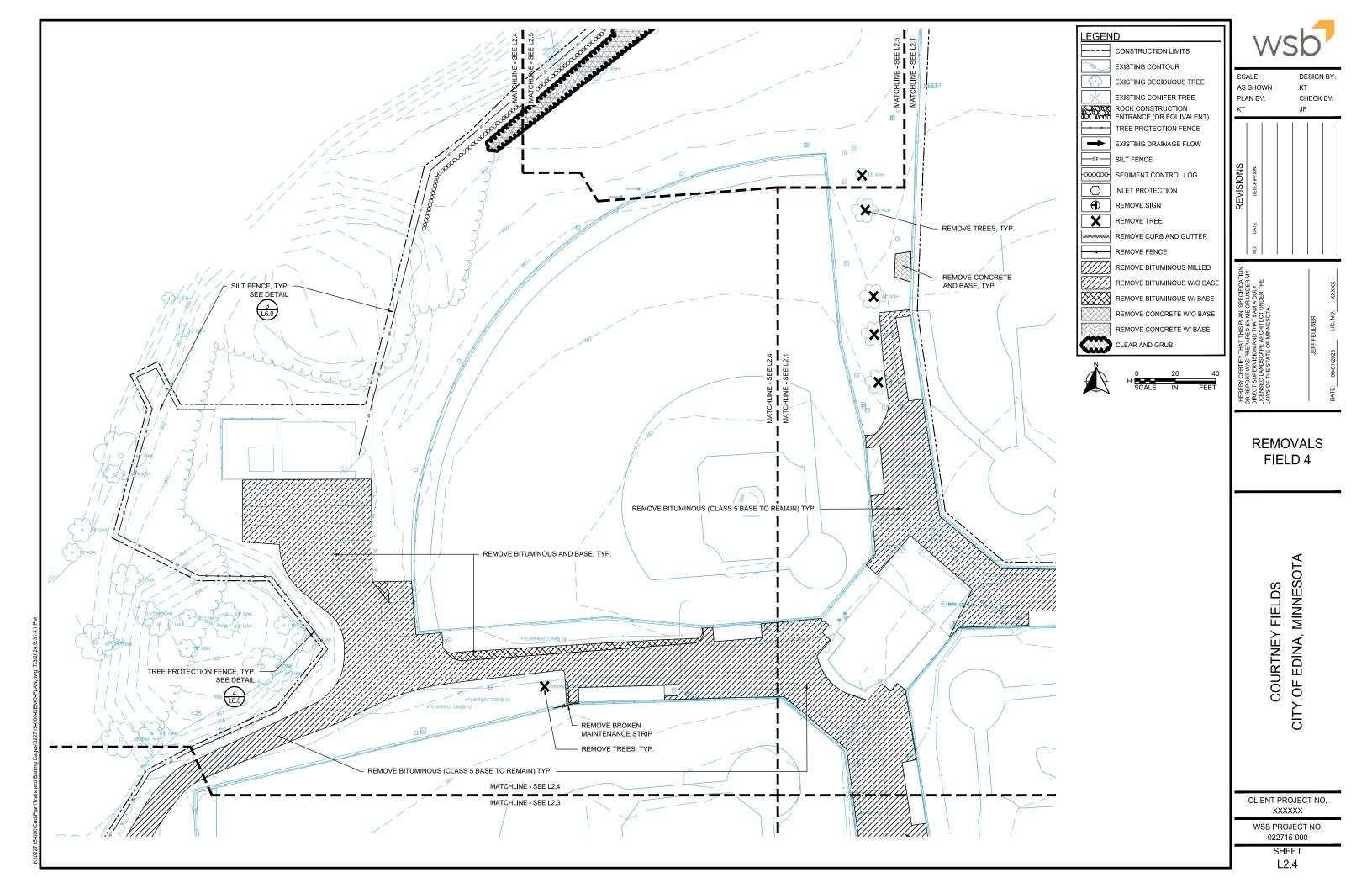


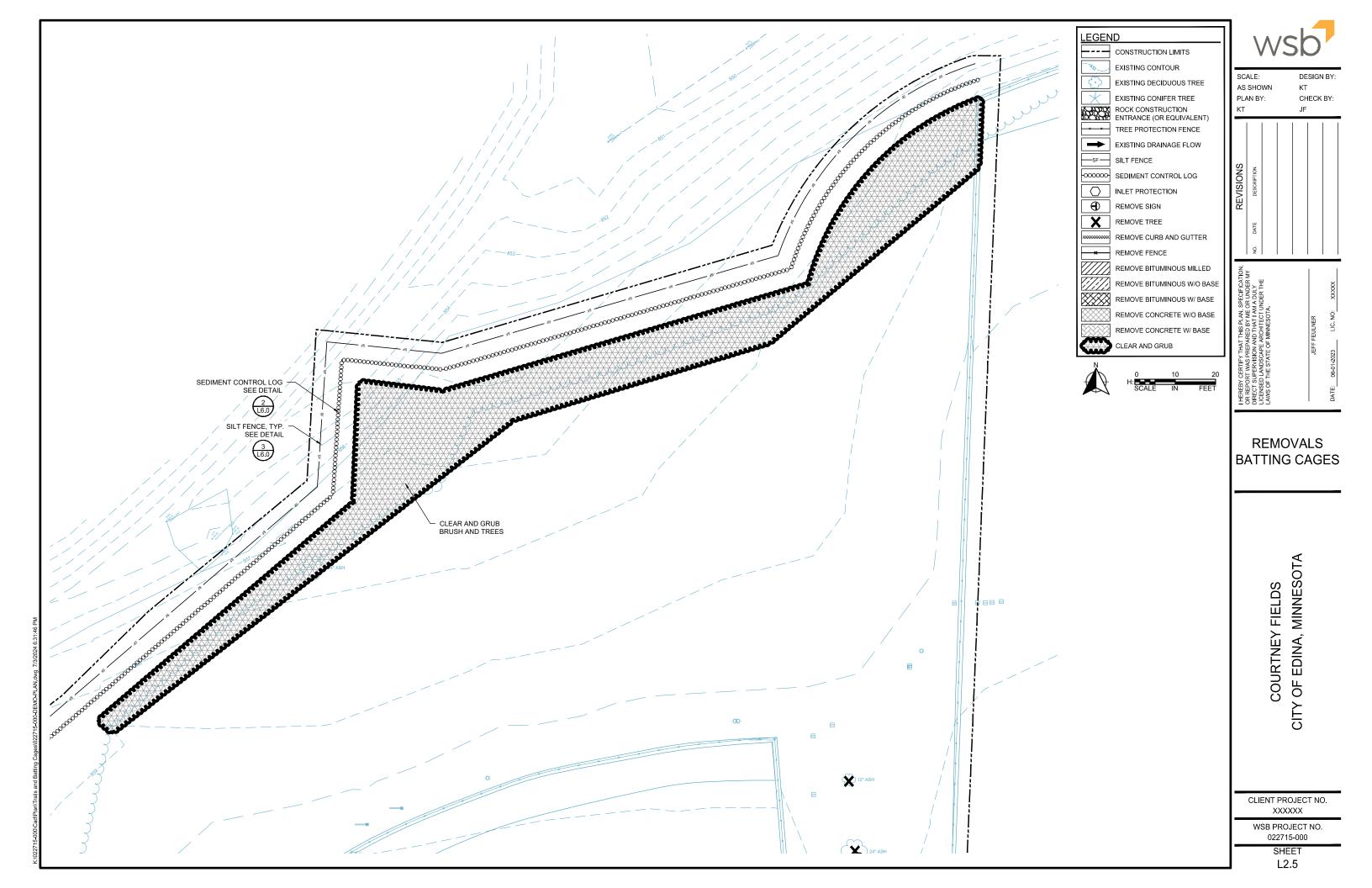


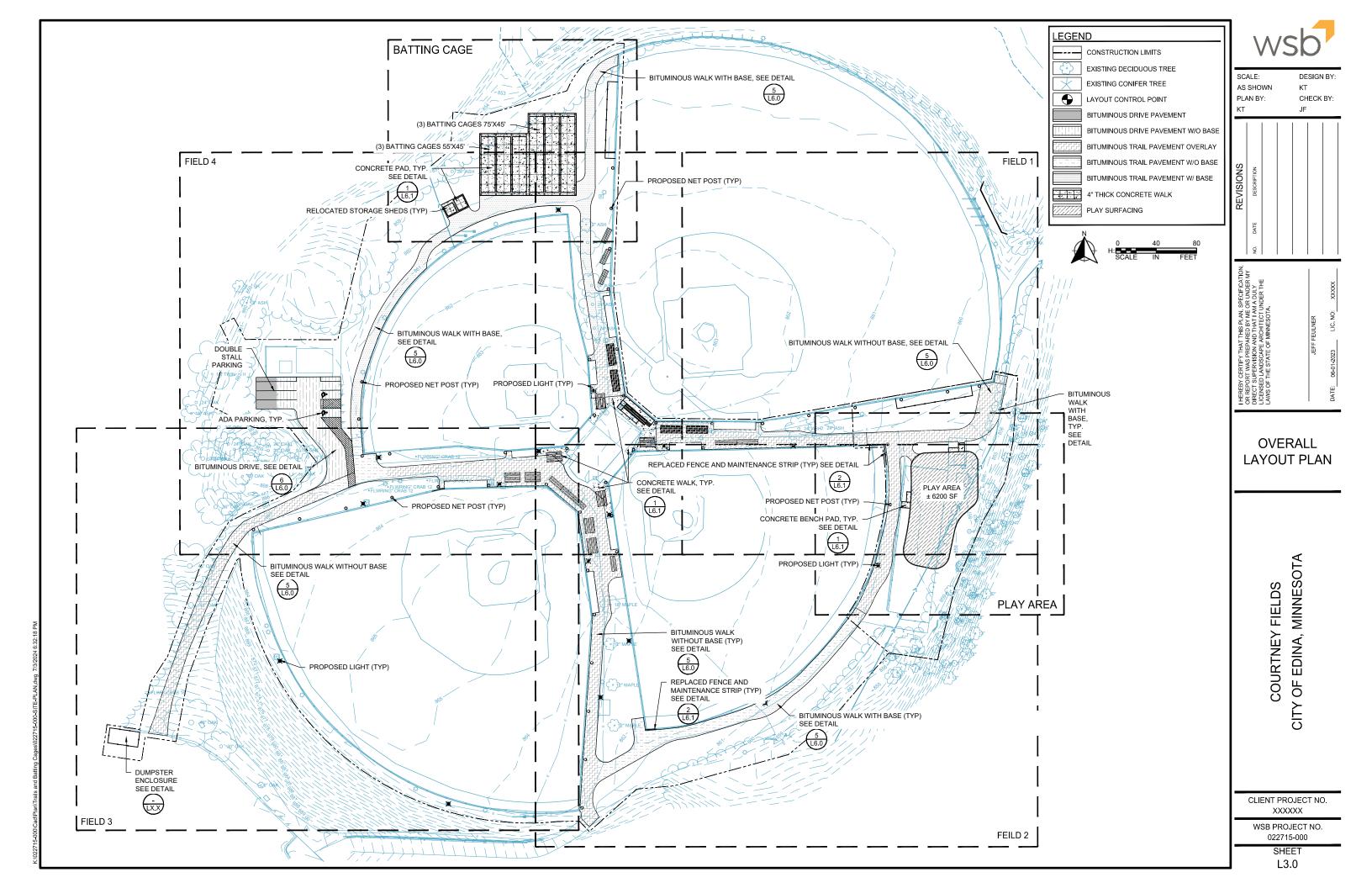


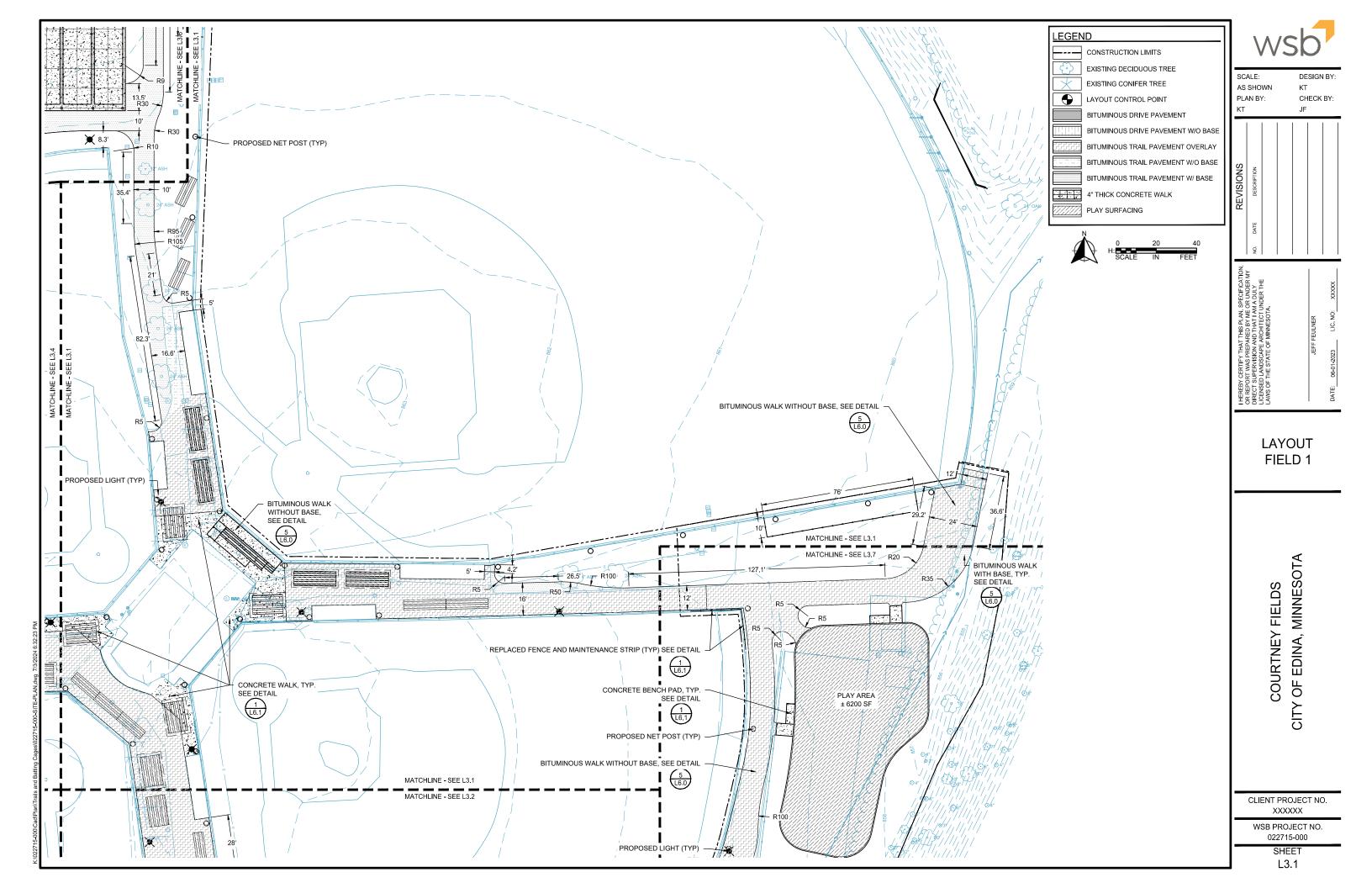


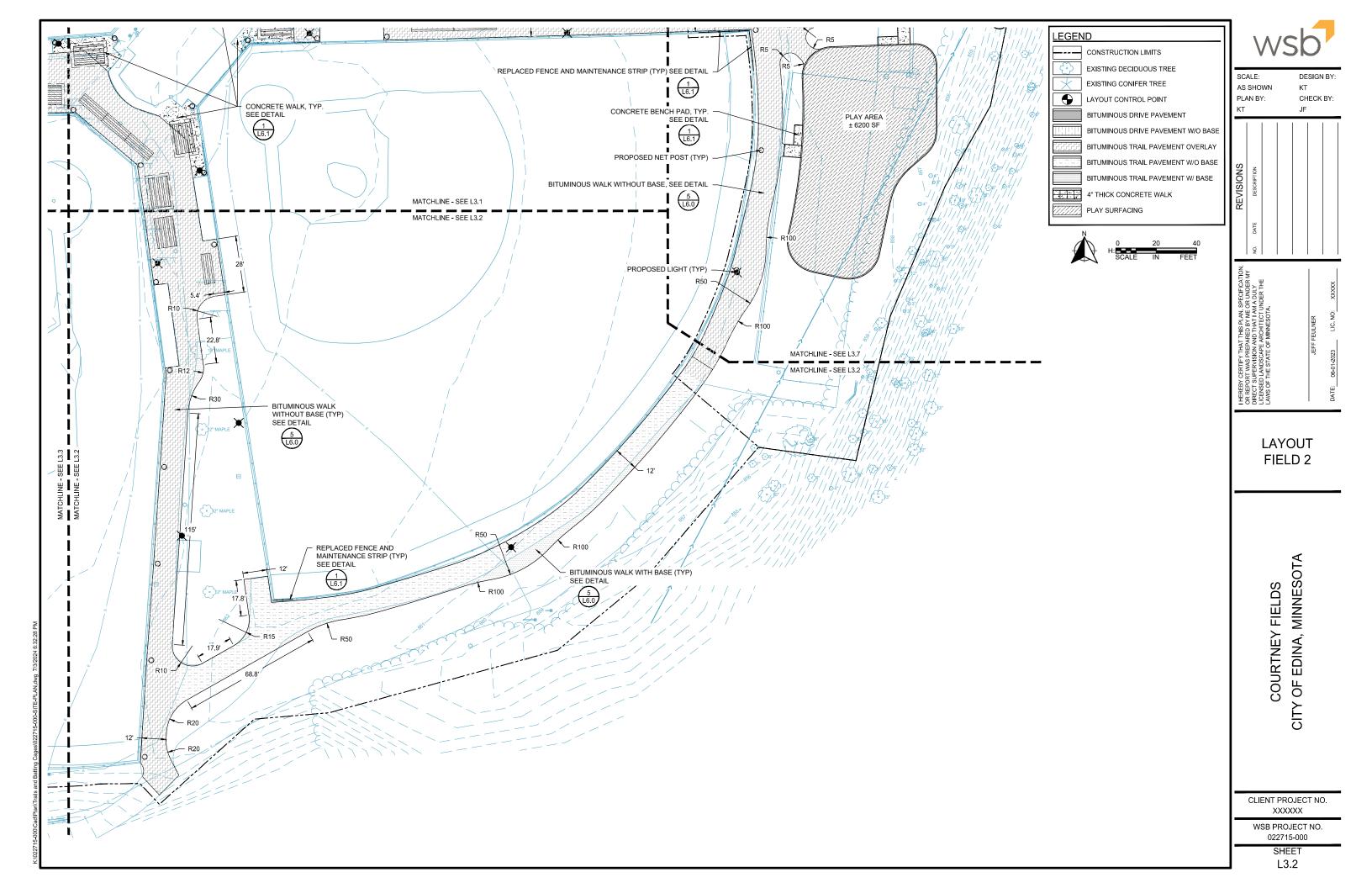
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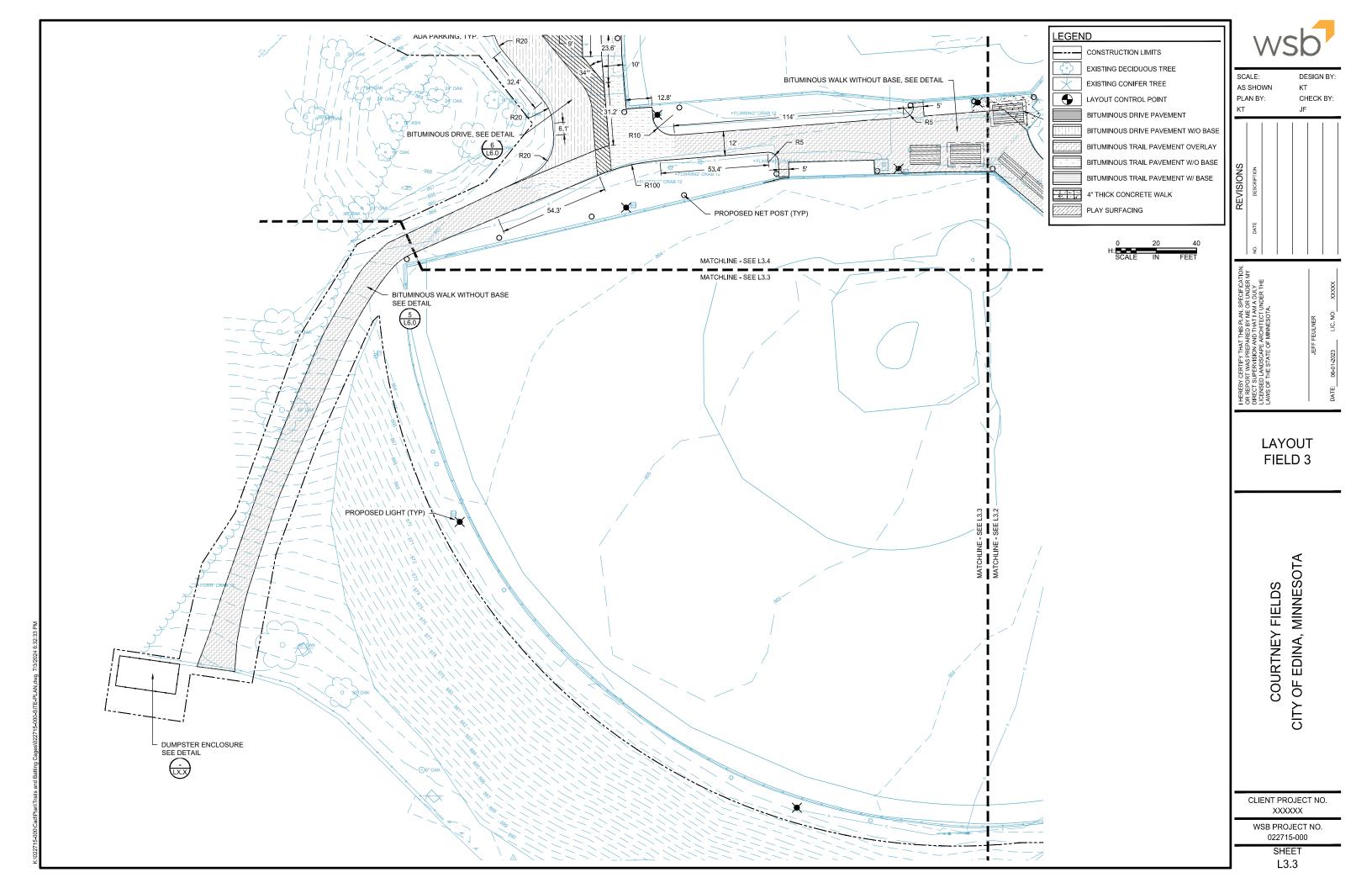


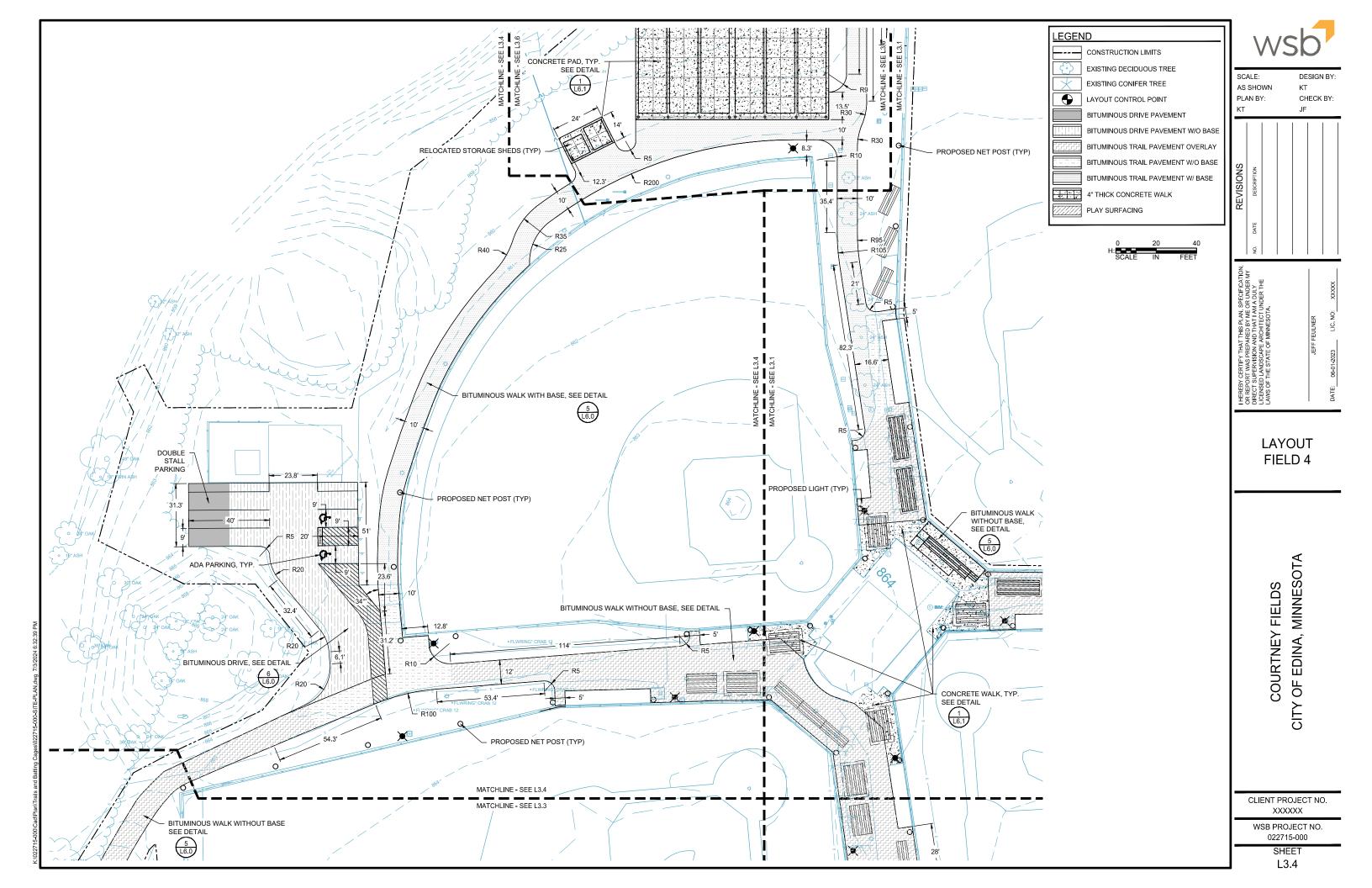


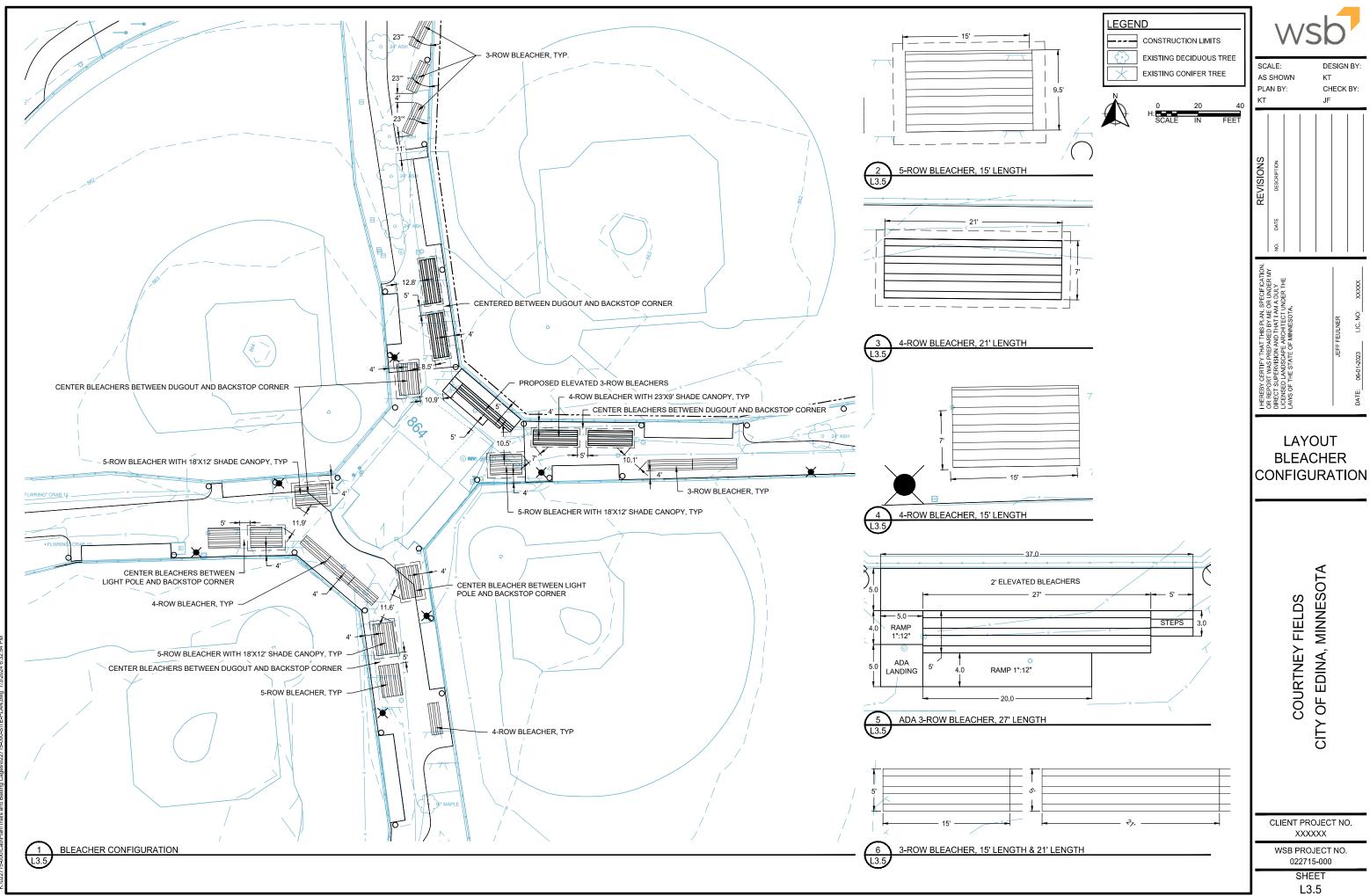


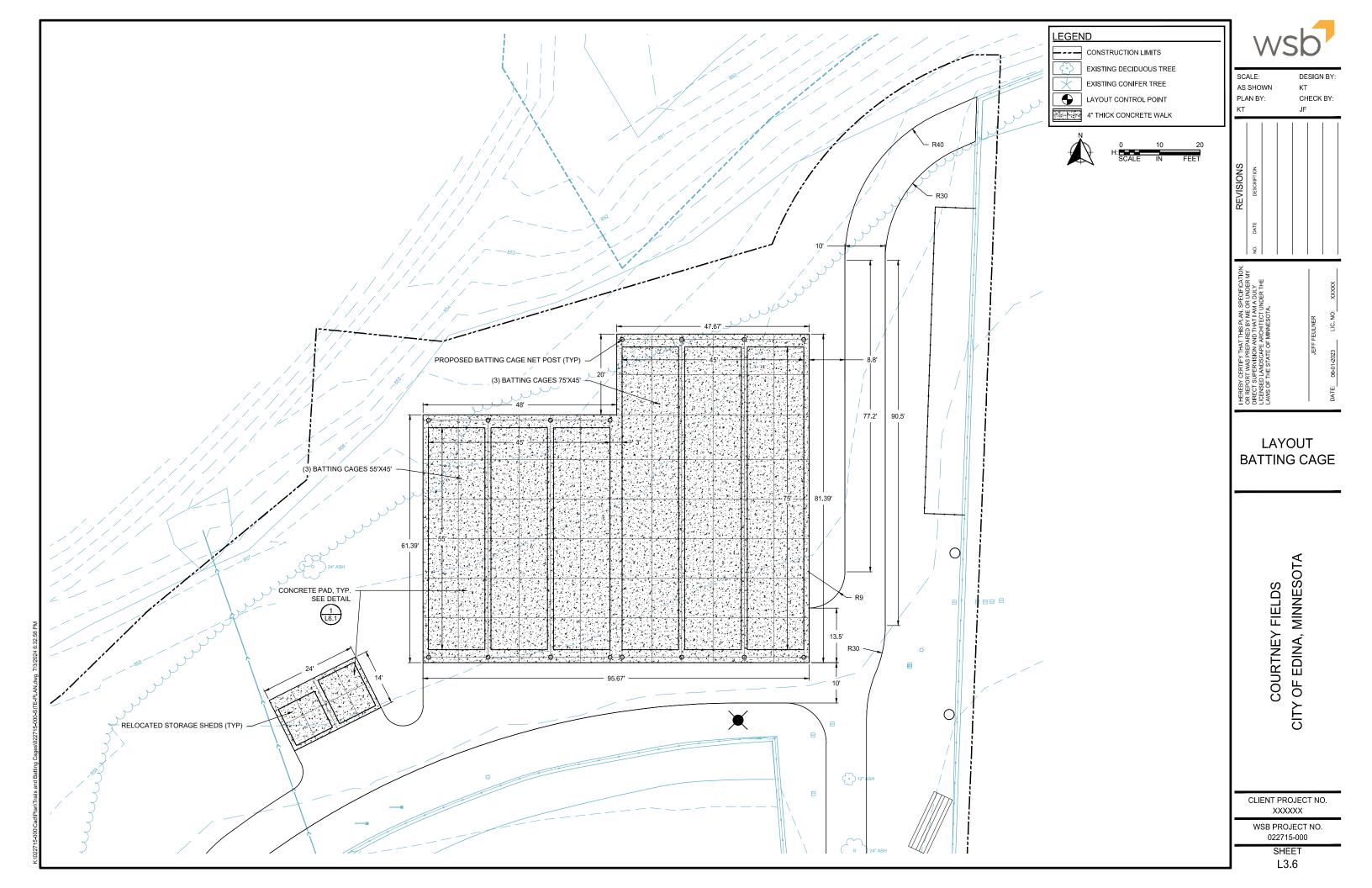


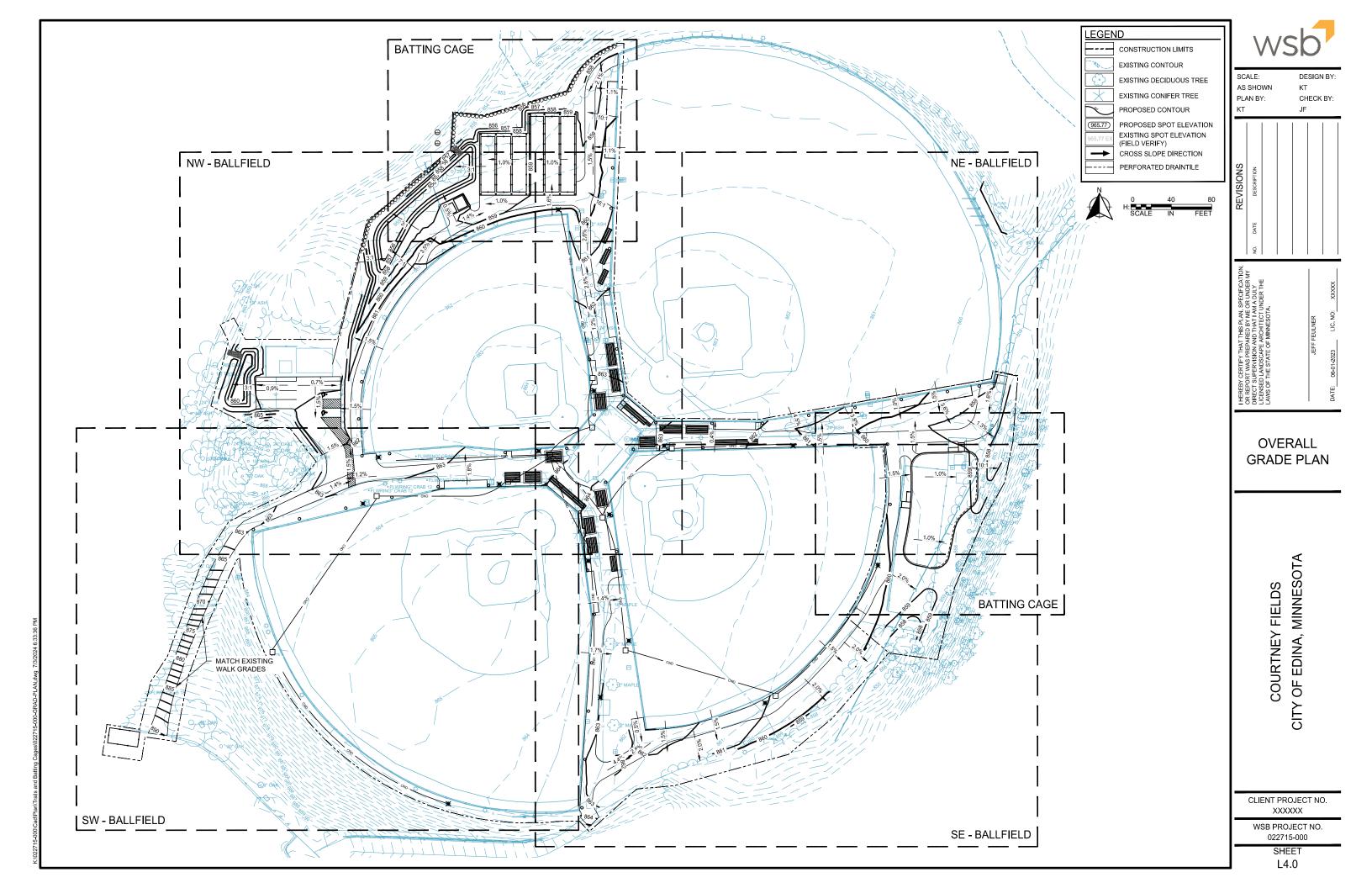


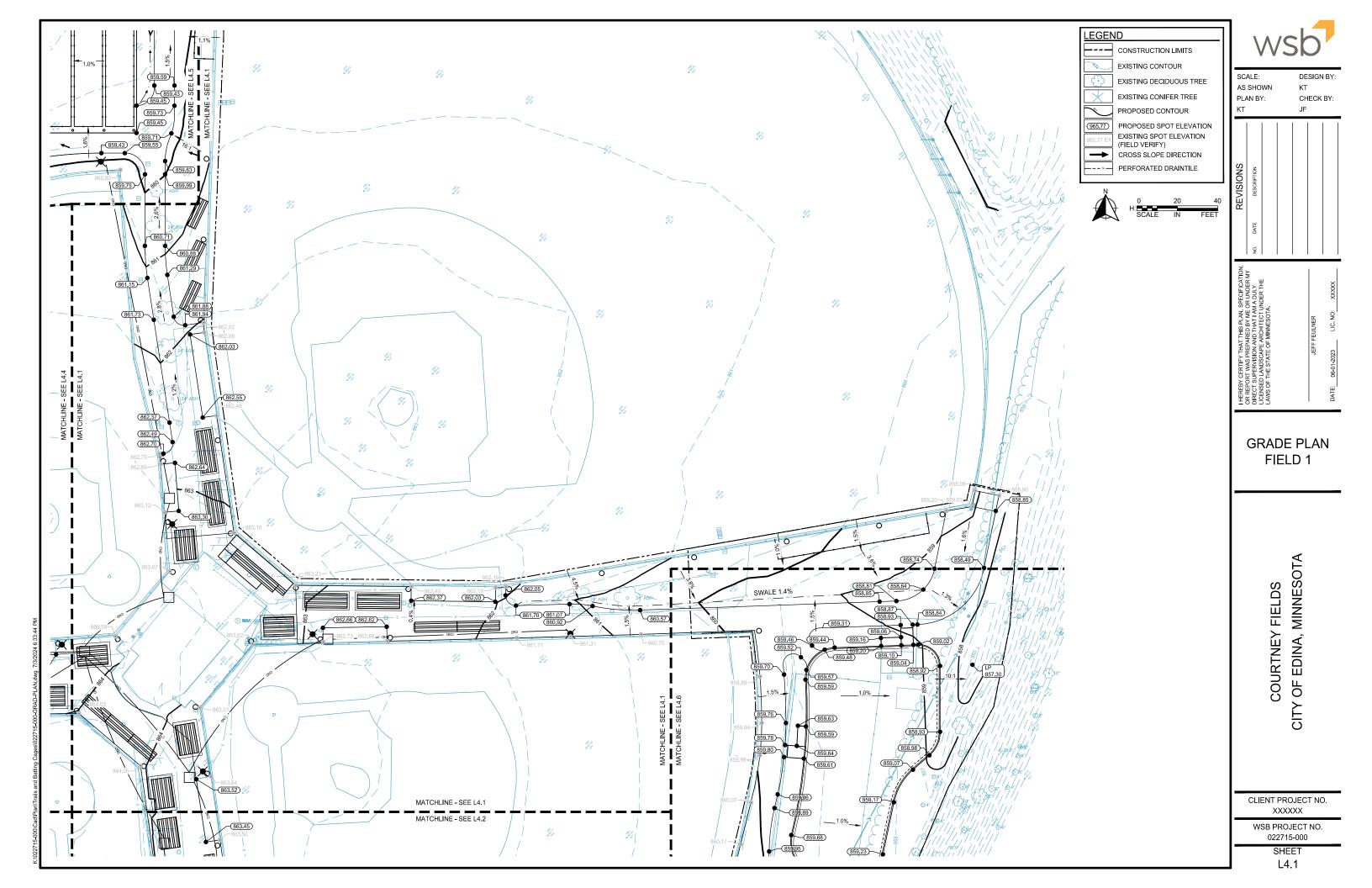


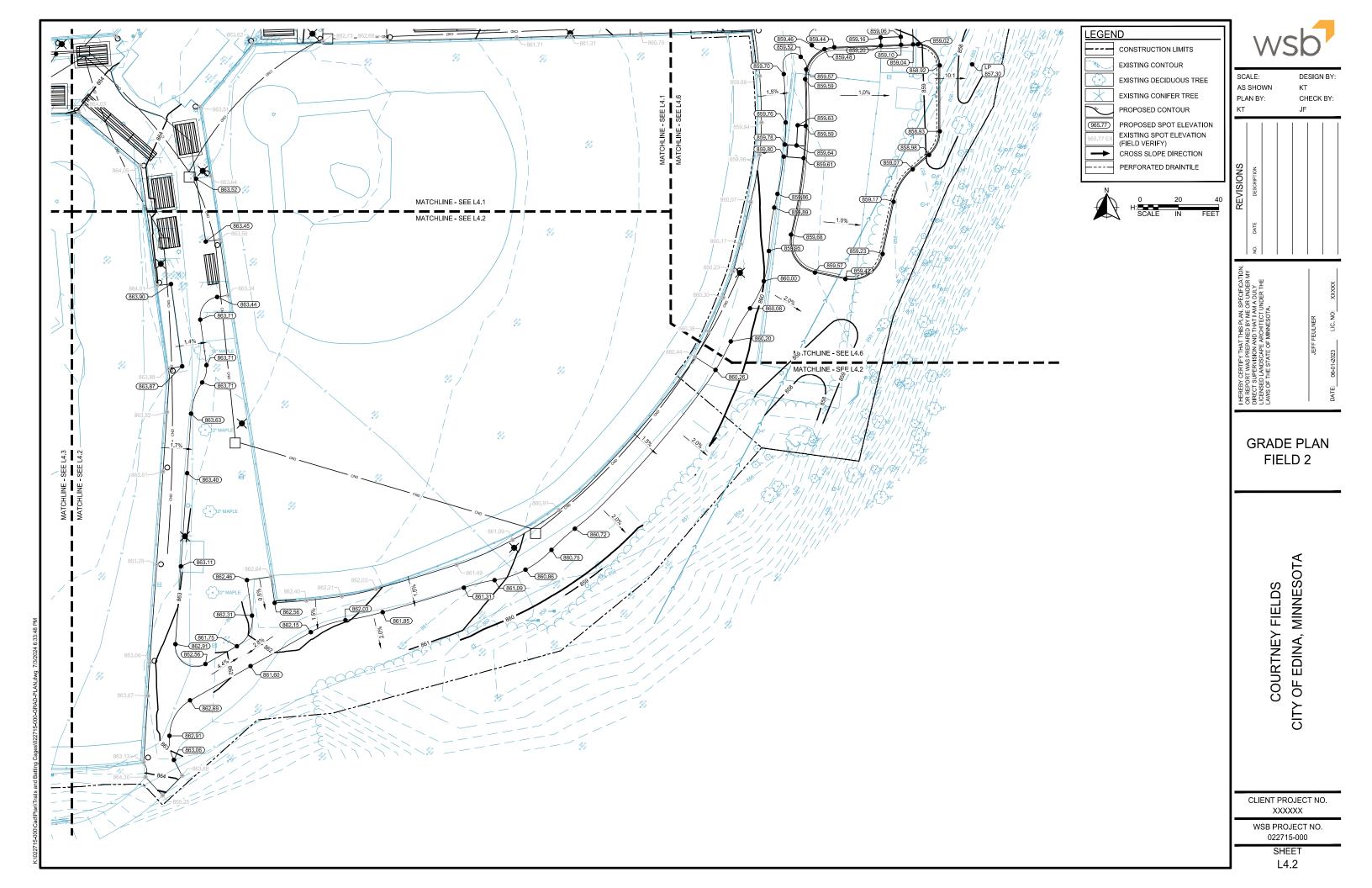


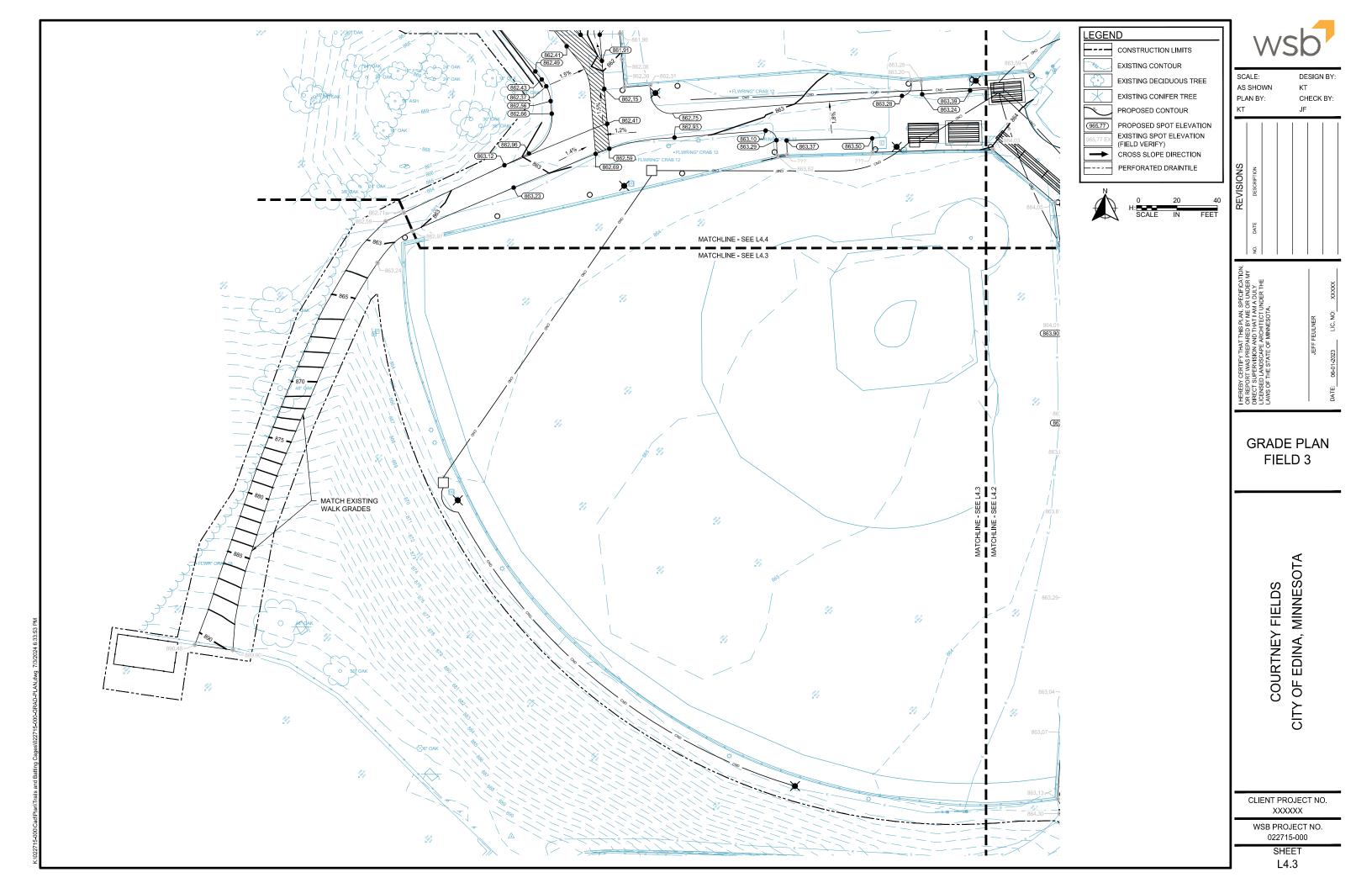


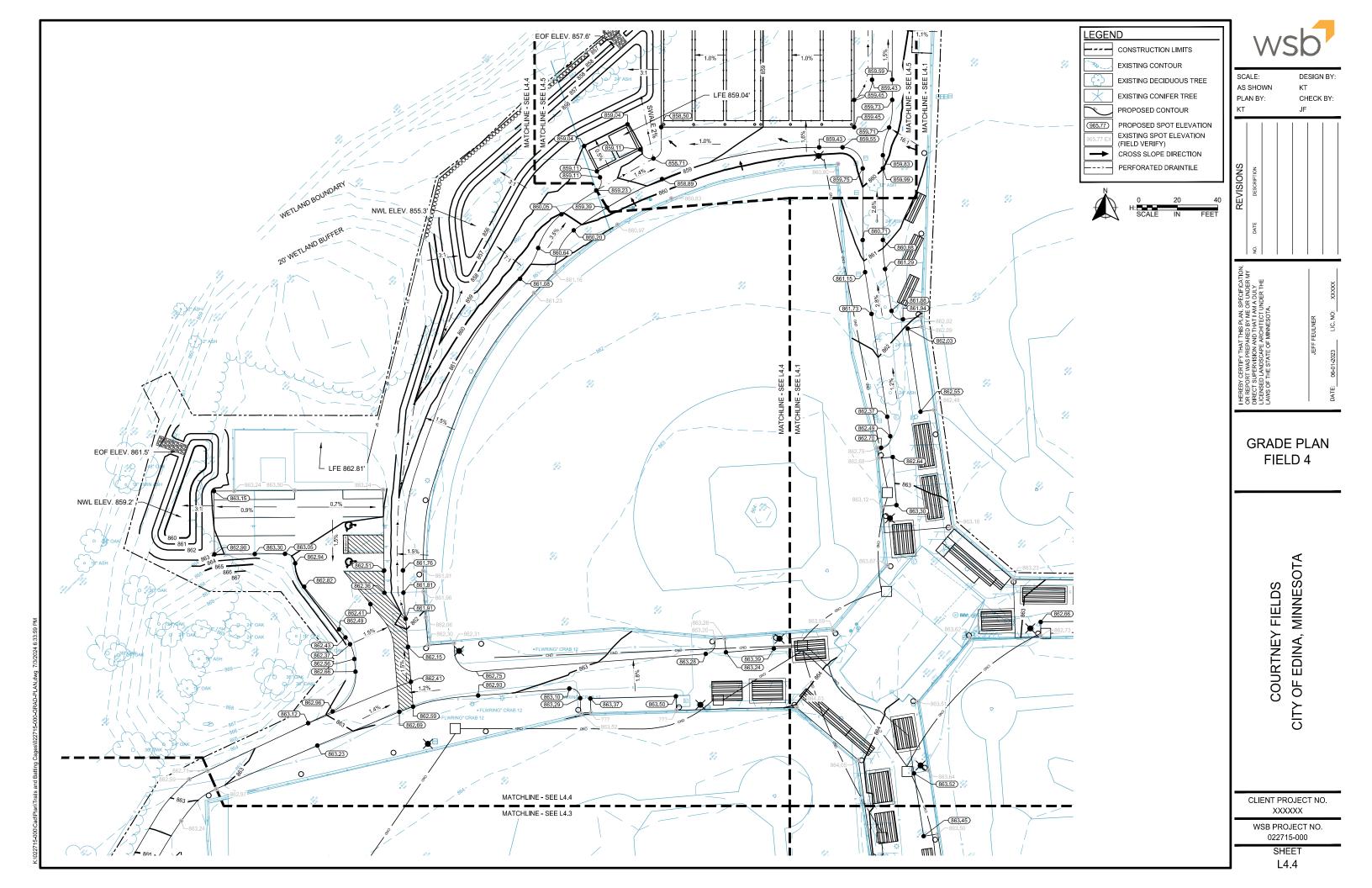


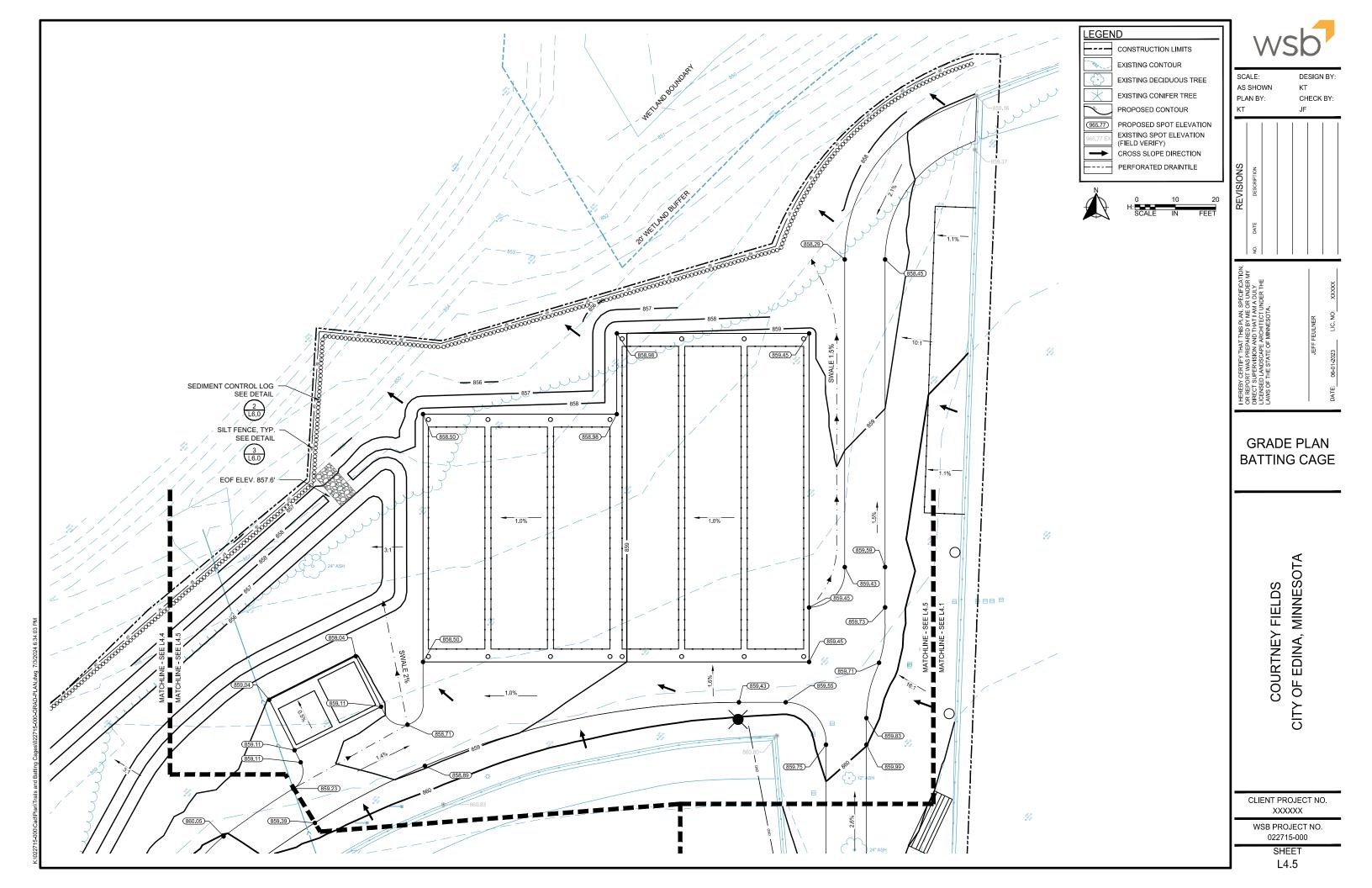


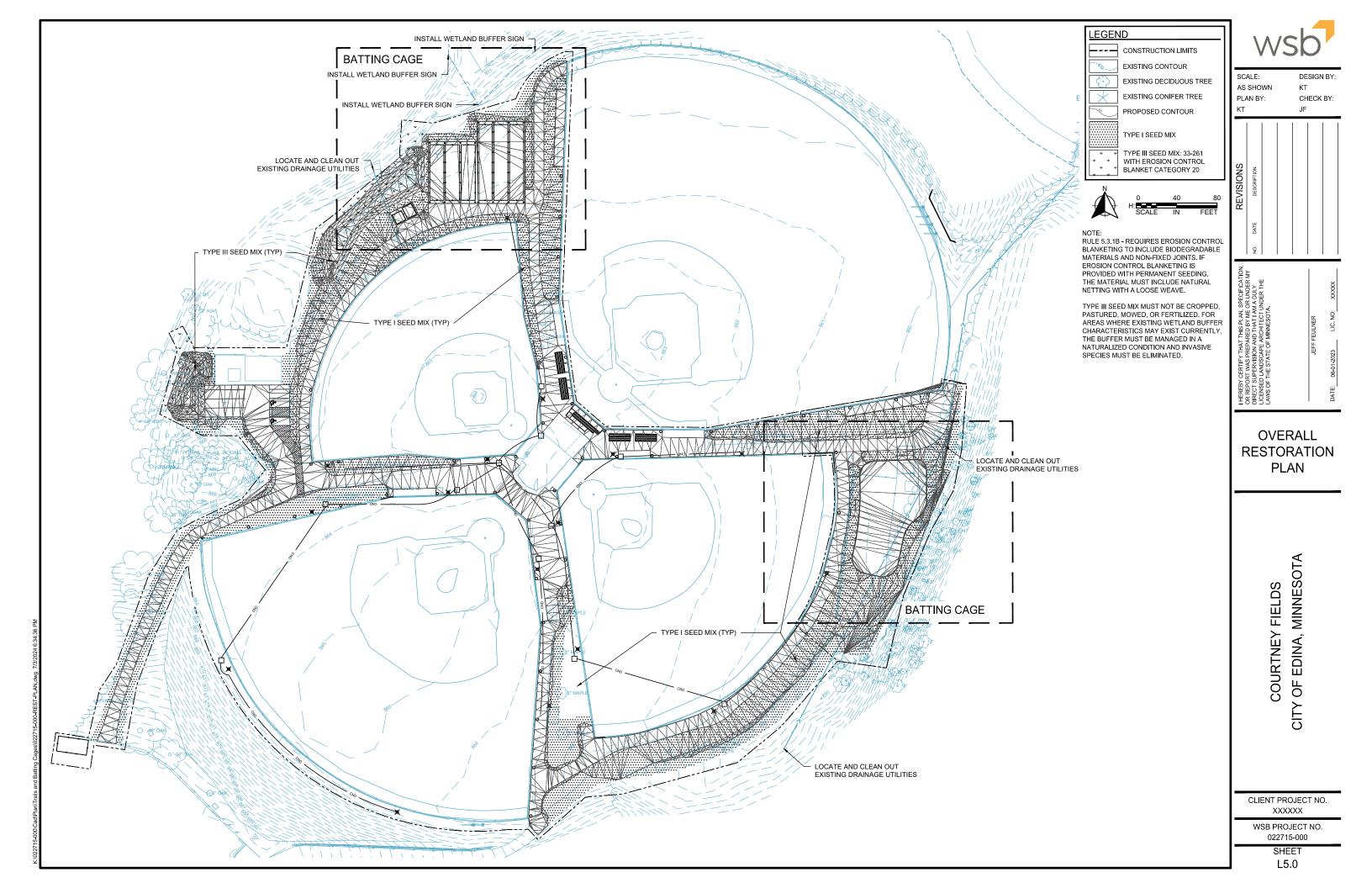


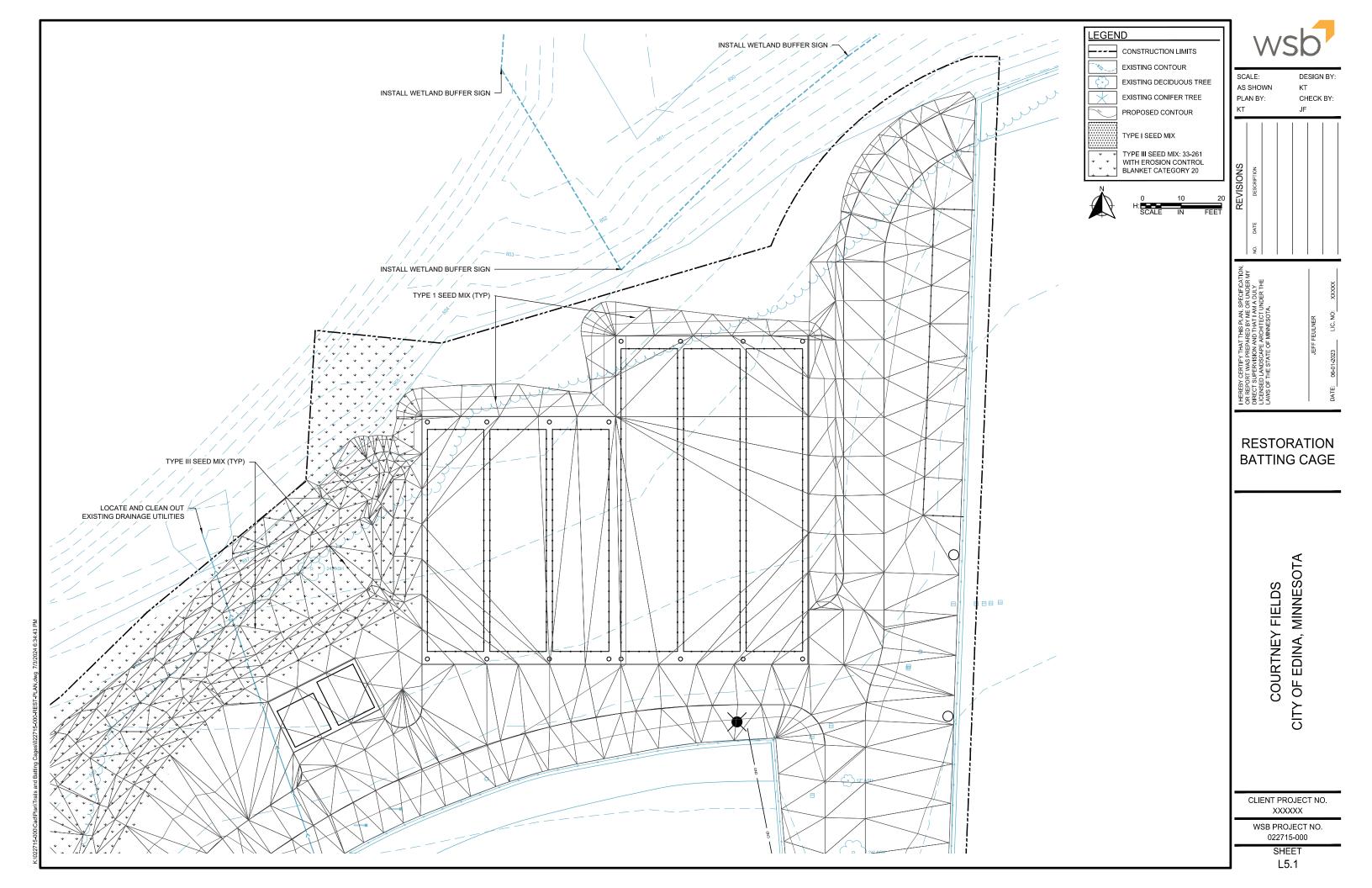


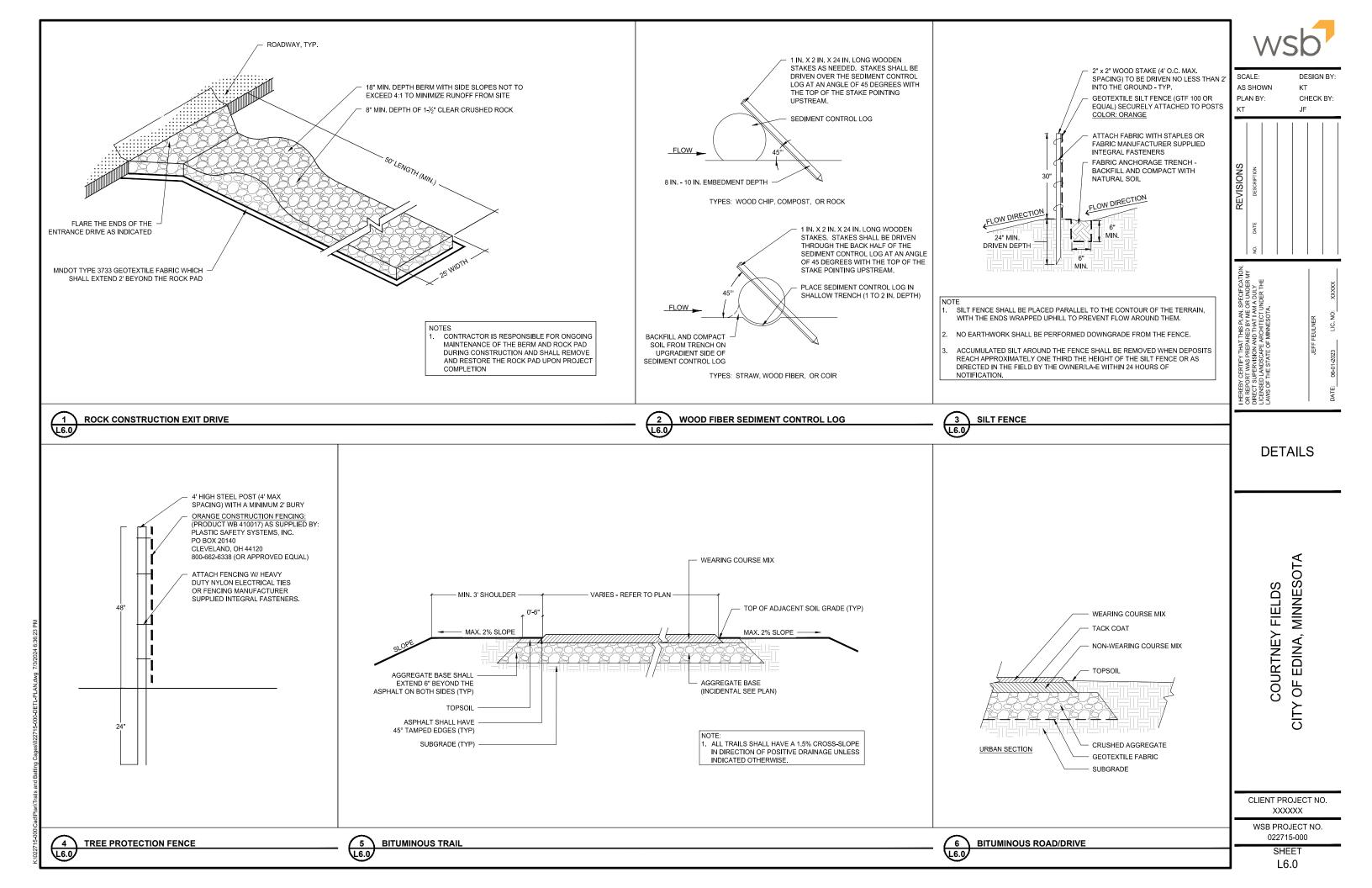












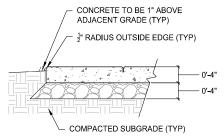
CONCRETE PLACEMENT NOTE:

CONCRETE SHALL HAVE 1.0% MIN. / 1.5% MAX. CROSS-SLOPE IN DIRECTION OF POSITIVE DRAINAGE FLOW, UNLESS INDICATED OTHERWISE (TYP) - REFER ALSO TO GRADING PLANS FOR ADDITIONAL INFORMATION.

REFER TO PLAN FOR LOCATIONS OF JOINTS AND VERIFY WITH LA-E AT TIME OF CONSTRUCTION. CRACK CONTROL JOINTS SHALL EXTEND TO $\frac{1}{3}$ THE THICKNESS OF THE CONCRETE. REPLACE CONTROL JOINT WITH $\frac{1}{2}$ " EXPANSION JOINT AT MAX. 50' INTERVALS.

4" THICK CONCRETE SECTION:

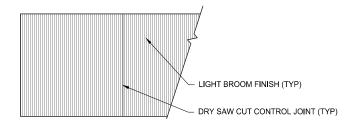
4" THICK CONCRETE (4000 PSI) OVER 4" THICK COMPACTED DEPTH OF MnDOT 3138 CLASS 5 CRUSHED AGGREGATE BASE COMPACTED TO 100% STANDARD PROCTOR DENSITY



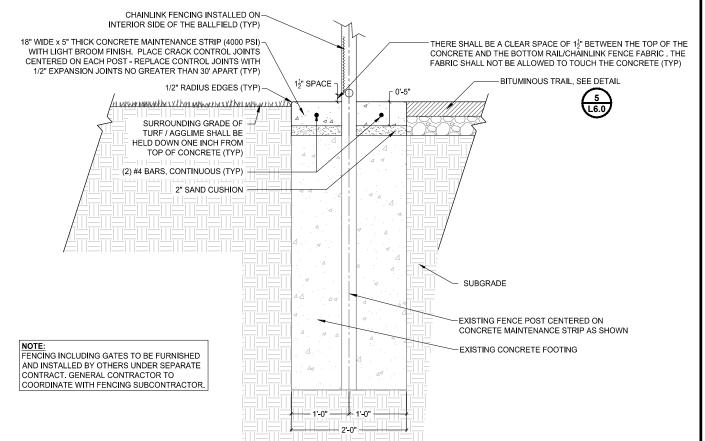
CONCRETE SECTION VIEWS

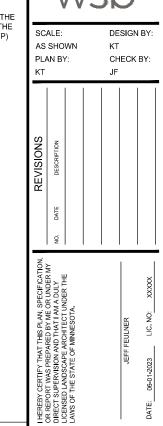
CONCRETE FINISH:

LIGHT BROOM FINISH WITH DRY SAW CUT JOINTS $\binom{i}{8}$ ") (TYP) - REFER TO PLANS AND DETAILS FOR LOCATIONS



CONCRETE FINISH - PLAN VIEW





4" CONCRETE WALK

CONCRETE MAINTANENCE STRIP DETAIL

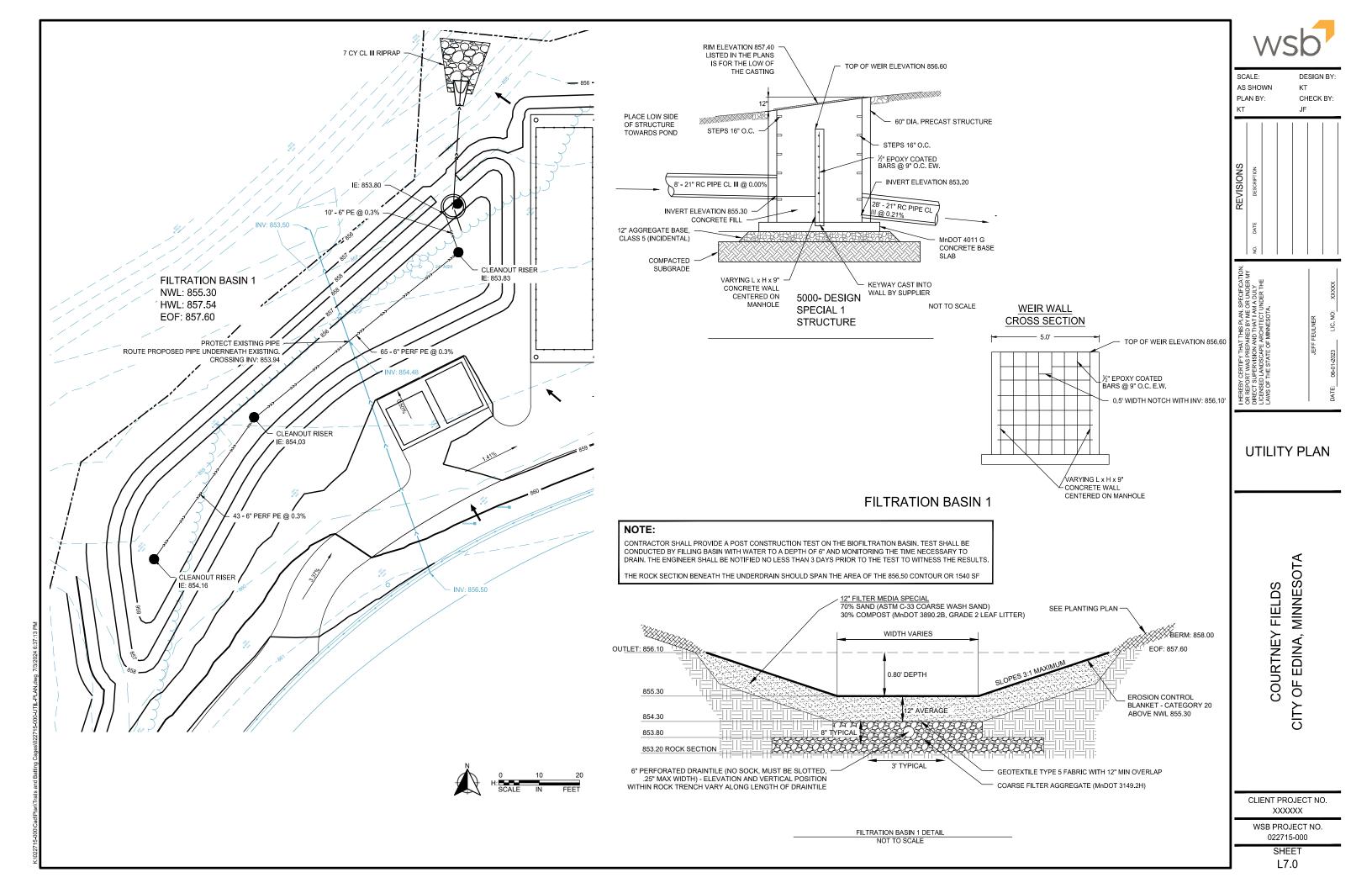
DETAILS

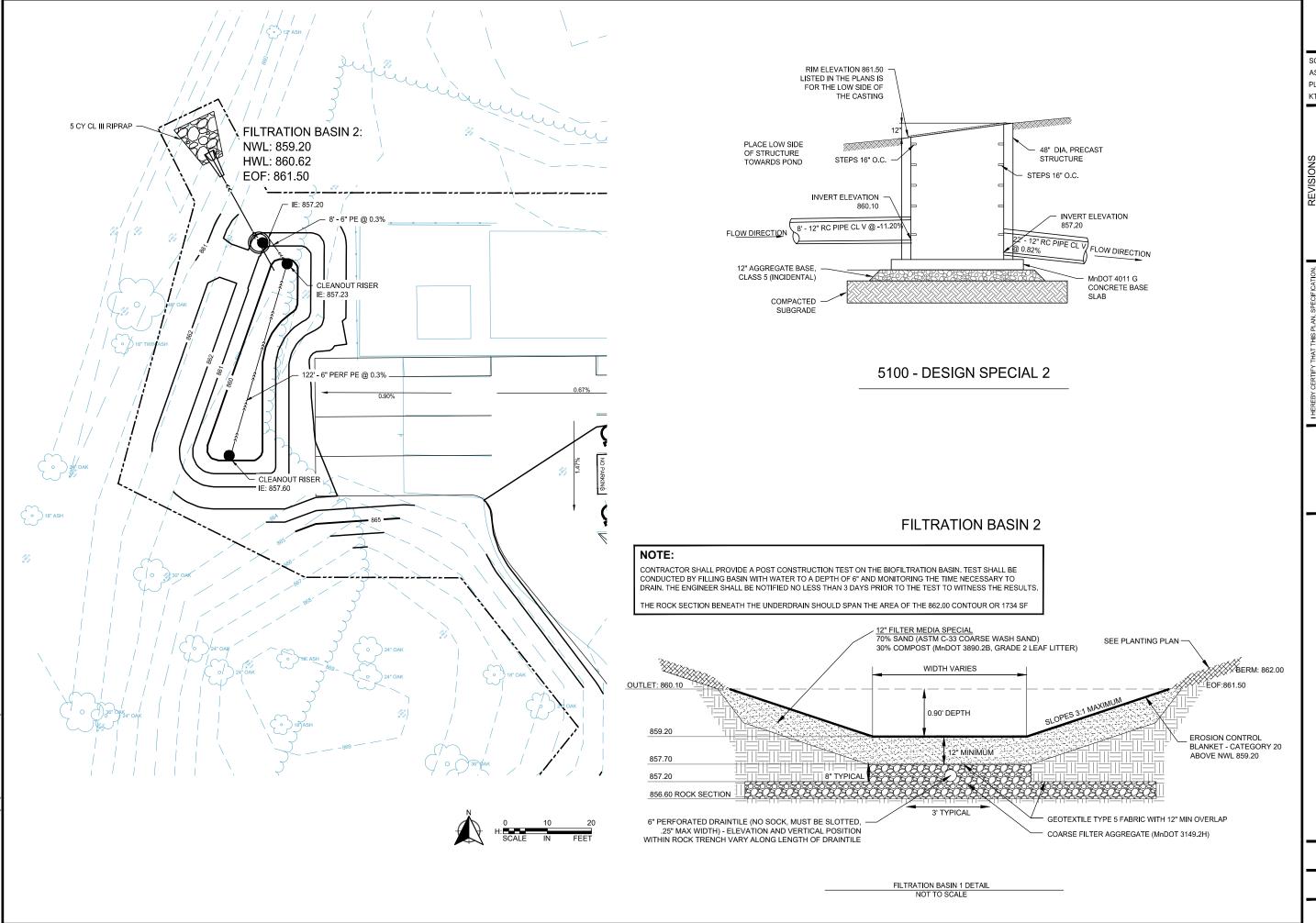
OF EDINA, MINNESOTA COURTNEY FIELDS CITY

CLIENT PROJECT NO. XXXXXX

WSB PROJECT NO. 022715-000

SHEET L6.1







REVISIONS

NO. DATE

OBSORBITION

NO. DATE

OBSORBITION

ACHECK BY:

ACHECK BY

I HEREBY CERTIFY THAT THIS PLAN SPECIFICATION,
OR REPORT WAS PREPARED BY ME OR NUDER MY
DIRECT SUPERVISION AND THAT I AM A DULY
LICENSED LANDSCAPE ARCHITECT UNDER THE
LAWS OF THE STATE OF MINNESOTA.

JEFF FEULNER

JAFF FEULNER

DATE: 06-01-2023 LIC.NO: XXXXX

UTILITY PLAN

COURTNEY FIELDS CITY OF EDINA, MINNESOTA

CLIENT PROJECT NO. XXXXXX

WSB PROJECT NO. 022715-000

SHEET L7.1