Environment and Natural Resources Trust Fund

2022 Request for Proposal

General Information

Proposal ID: 2022-011

Proposal Title: Pickwick Mill dam repair

Project Manager Information

Name: Tony Blumentritt

Organization: Pickwick Mill, Inc. - Pickwick Mill Dam Repair

Office Telephone: (507) 429-6117

Email: tonyblumentritt@gmail.com

Project Basic Information

Project Summary: The repair of Pickwick Mill dam deficiencies noted by the Minnesota DNR Ecological and Water Resources Division Dam Safety Unit.

Funds Requested: $197,000

Proposed Project Completion: October 31 2023

LCCMR Funding Category: Small Projects (H)

Secondary Category: Methods to Protect, Restore, and Enhance Land, Water, and Habitat (F)

Project Location

What is the best scale for describing where your work will take place?

Region(s): SE

What is the best scale to describe the area impacted by your work?

Region(s): SE

When will the work impact occur?

During the Project and In the Future

Narrative

Describe the opportunity or problem your proposal seeks to address. Include any relevant background information.

1. To allow the continued existence and development of the Lake LaBelle (the reservoir created by the Pickwick Mill Dam) area as a wildlife and plant habitat, and as a recreational, educational, and environmental resource (Lake LaBelle is under the ownership of Lake LaBelle Inc., a 501(c)(3) nonprofit organization dedicated to the preservation and development of the lake area). 2. To allow Lake LaBelle to continue in capturing sediment and nutrients from upstream runoff. 3. To allow the lake to continue to provide temporary water storage and the dam to provide a controlled outlet for flood control purposes. 4. To create additional structural integrity to the dam. 5 To create increased safety for the dam operators. 6. To enable Lake LaBelle to continue as an emergency water source for Pickwick Fire and Rescue. 7. To enable Lake LaBelle to continue as a water source in powering the Pickwick Mill water wheel (the Pickwick Mill dam was originally constructed in the 1800's to create Lake LaBelle as a water source for the Pickwick Mill water wheel in powering the mill). 8. To preserve Lake LaBelle as an important part of the history and identity of the Pickwick community.

What is your proposed solution to the problem or opportunity discussed above? i.e. What are you seeking funding to do? You will be asked to expand on this in Activities and Milestones.

To effect repairs on the Pickwick Mill dam to correct deficiencies identified by the DNR Dam Safety Unit. Repairs include: 1. Excavation behind the existing left (west) dam main chute wall and add a clay embankment behind the wall. The clay embankment will aid in waterproofing and add structural reinforcement to the wall. The left dam main chute wall, which is an existing rock (masonry) wall, is proposed to be tuckpointed on both sides of the wall to add structural integrity to the wall and to alleviate the leakage through the wall. 2. To remove and replace the portion of the west dam abutment wall which is deteriorated and leaking. The affected portion of the abutment wall is proposed to be replaced with a reinforced concrete structure. 3. To install a plastic drain line behind the left dam main chute wall to provide an avenue for any leakage behind the dam to escape without eroding the dam wall or its embankment. 4. To reinforce and remount the dam operator's catwalk to provide additional support for the catwalk and additional safety for the dam operators. Refer to attachments for photos and selected repair plan sheets.

What are the specific project outcomes as they relate to the public purpose of protection, conservation, preservation, and enhancement of the state's natural resources?

1. To support the preservation and development of the Lake LaBelle area as a public recreational facility, as a sustainable environment education resource and as a plant and wildlife habitat area. Portions of the lakeshore include native plant gardens, a beach, and park areas. Educational material about healthy lakes will be developed along with a lake trail. 2. To Allow enhanced water quality of Big Trout Creek, a MN DNR classified Trout Stream by providing flood control measures and sediment control.

Activities and Milestones

Activity 1: Dam repair construction.

Activity Budget: $197,000

Activity Description:

Construction is tentatively scheduled for the summer of 2022 depending on contractor availability and funding acquisition. Construction will be done according to approved plans and specifications. The plans include: Removal and replacement of a portion of the left (west) dam abutment wall; excavating behind the left (west) dam main chute rock masonry wall; tuckpointing both sides of the rock masonry wall; installing a clay bank behind the rock masonry wall; installing a drain tile behind the left (west) dam abutment wall and main chute wall; and repair and reinforcement of the dam control catwalk. Project plans and specifications are finished subject to DNR approval. Preparation of the plans and specifications were funded by Pickwick Mill, Inc., and funds obtained through fundraising activities, grant acquisitions, and corporate and individual donations. Fees paid to date for plan preparation are $49,158.89. Dam deficiencies are worsening. Upon DNR approval and permitting, which we hope to receive soon, and upon funding acquisition, we hope to be able to solicit bids for the project. Refer to attachments for photos and selected construction plan sheets.

Activity Milestones:

Description	Completion Date
DNR plan approval and permitting	August 31 2021
Contractor bid solicitation	September 30 2022
construction activity and acceptance	September 30 2023
Fundraising	September 30 2023

Project Partners and Collaborators

Name	Organization	Role	Receiving Funds
Joan Francioni	Lake LaBelle, Inc.,	Lake LaBelle, Inc., is the caretaker of Lake LaBelle, the impoundment created by the Pickwick Mill Dam. As such, Lake LaBelle, Inc. is concerned with the status of the dam repair. Ms Francioni has been involved with the preparation of this application.	No

Long-Term Implementation and Funding

Describe how the results will be implemented and how any ongoing effort will be funded. If not already addressed as part of the project, how will findings, results, and products developed be implemented after project completion? If additional work is needed, how will this be funded?

Results will be implemented by closing the dam gates and refilling the dam reservoir. All of the problems outlined above will be addressed and all of the specific project outcomes outlined above including the restoration of a water source for powering the Pickwick Mill water wheel will be implemented. Future work will be funded by support from the Pickwick Community, by Pickwick Mill, Inc. and its membership, by fundraising efforts, by individual and corporate donations, by grant awards, and by income provided by Pickwick Mill visitor admission fees and purchases.

Project Manager and Organization Qualifications

Project Manager Name: Tony Blumentritt

Job Title: Pickwick Mill dam repair

Provide description of the project manager's qualifications to manage the proposed project.

Tony Blumentritt is the Pickwick Mill, Inc., manager for this project. Tony has 45 years of experience as a land surveyor, with a considerable share of that time being involved with construction projects including street construction, underground pipeline construction, Mississippi River Lock and Dam reconstruction, and building construction. Tony has also been involved with Pickwick Mill, Inc., for approximately 20 years, and has a good understanding of the workings of the organization. Tony has served on the Pickwick Mill Board of Directors twice for a total of approximately 9 years including 3 years as vice president. Tony is also involved in working with the Minnesota Department of Natural Resources Dam Safety Unit, Pickwick Fire and Rescue, and Homer Township in revising the Pickwick Mill/Homer Township Dam Operations and Maintenance Manual. Tony also has worked closely with the Pickwick Mill Dam repair project engineering firm, Bolton and Menk, Inc. while the repair plans and specifications for the dam repair project are being prepared.

Organization: Pickwick Mill, Inc. - Pickwick Mill Dam Repair

Organization Description:

Pickwick Mill, Inc. is a 501(c)(3) non profit corporation. Key purposes of Pickwick Mill, Inc. are: To promote education regarding the history of Southeast Minnesota with an emphasis on milling history; to maintain and preserve the historic Pickwick Mill; to establish the mill as a museum and interpretive center on milling history; to assist local and state government bodies and officials in their flood control efforts to protect the Pickwick Community. Pickwick Mill Inc., was formed in 1982. Pickwick Mill, Inc., is governed by a board of directors, which presently has 12 directors including 4 officers. Pickwick Mill Inc., is a member owned corporation with approximately 270 members. Membership meetings are held annually in the spring, with the board of directors elected by the membership. Board of Directors meetings are held monthly except for January.

Budget Summary

Category / Name	Subcategory or Type	Description	Purpose	Gen. Ineligible	% Benefits	# FTE	Classified Staff?	$ Amount
Personnel								
							Sub Total	**-**
Contracts and Services								
TBD	Professional or Technical Service Contract	Material and labor for dam repair according to approved Pickwick Mill Dam repair plans and specifications. Work includes Dam operators catwalk reinforcement, Removal and repair of a portion of the Dam abutment, installation of a clay bank and drain tile behind the main chute wall, tuckpointing the main chute wall.				0.04		$197,000
							Sub Total	**$197,000**
Equipment, Tools, and Supplies								
							Sub Total	**-**
Capital Expenditures								
							Sub Total	**-**
Acquisitions and Stewardship								
							Sub Total	**-**
Travel In Minnesota								
							Sub Total	**-**
Travel Outside Minnesota								

							Sub Total	**-**
Printing and Publication								
							Sub Total	**-**
Other Expenses								
							Sub Total	**-**
							Grand Total	**$197,000**

Classified Staff or Generally Ineligible Expenses

Category/Name	Subcategory or Type	Description	Justification Ineligible Expense or Classified Staff Request

Non ENRTF Funds

Category	Specific Source	Use	Status	Amount
State				
			State Sub Total	**-**
Non-State				
			Non State Sub Total	**-**
			Funds Total	**-**

Attachments

Required Attachments

Visual Component

File: 1aacb611-6fc.pdf

Alternate Text for Visual Component

Dam repair area photos and selected preliminary plan sheets...

Financial Capacity

File: cb54ad07-f46.pdf

Board Resolution or Letter

Title	File
Pickwick Mill BOD Grant application authorization	af08674c-c08.pdf

Optional Attachments

Support Letter or Other

Title	File
Senator Miller support letter	2adeb715-d53.pdf
Homer Township support letter	74059e11-40f.pdf
Lake LaBelle Inc support letter	3af60743-53c.pdf
SWCD support letter	86bee218-9ac.pdf
Rep Pelowski support letter	8b318255-246.pdf

Administrative Use

Does your project include restoration or acquisition of land rights?

No

Does your project have potential for royalties, copyrights, patents, or sale of products and assets?

No

Do you understand and acknowledge IP and revenue-return and sharing requirements in 116P.10?

N/A

Do you wish to request reinvestment of any revenues into your project instead of returning revenue to the ENRTF?

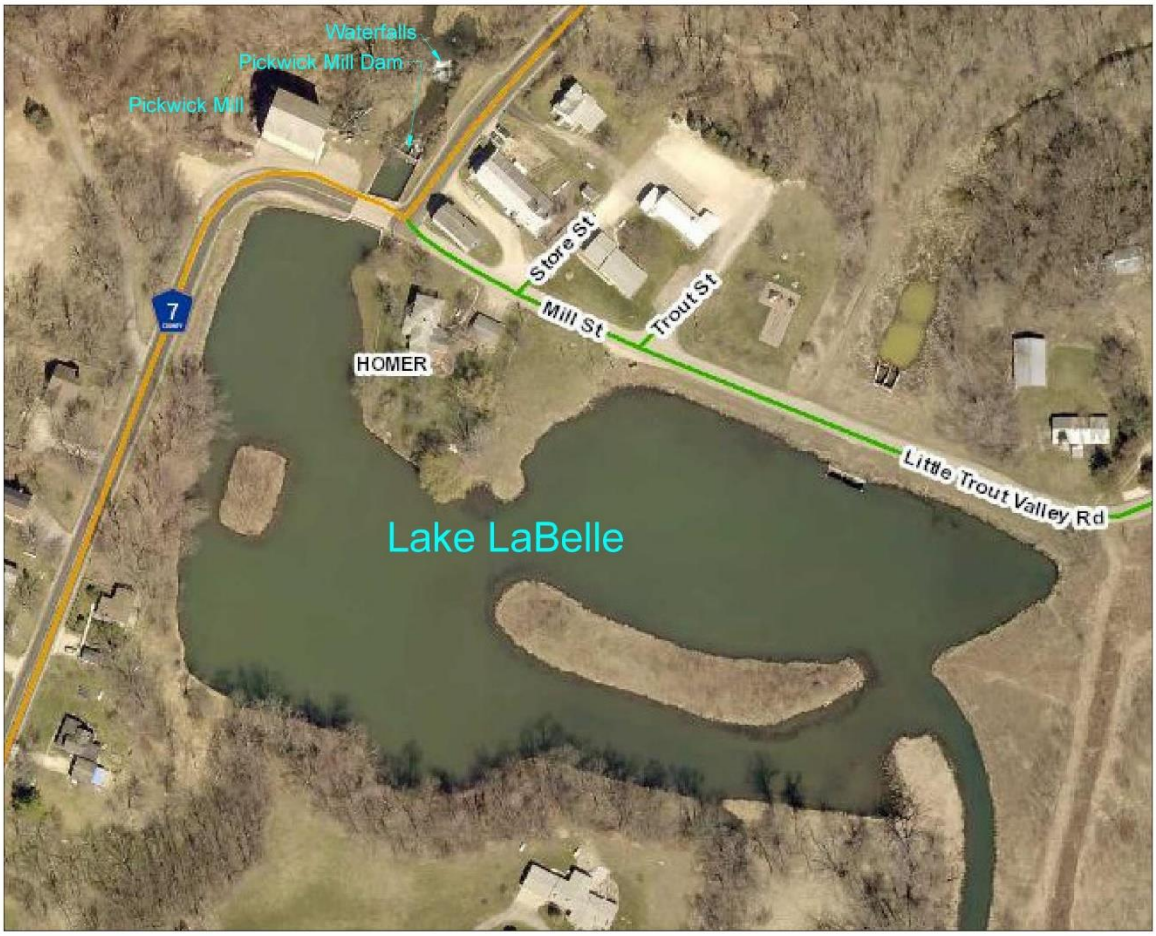
N/A

Does your project include original, hypothesis-driven research?

No

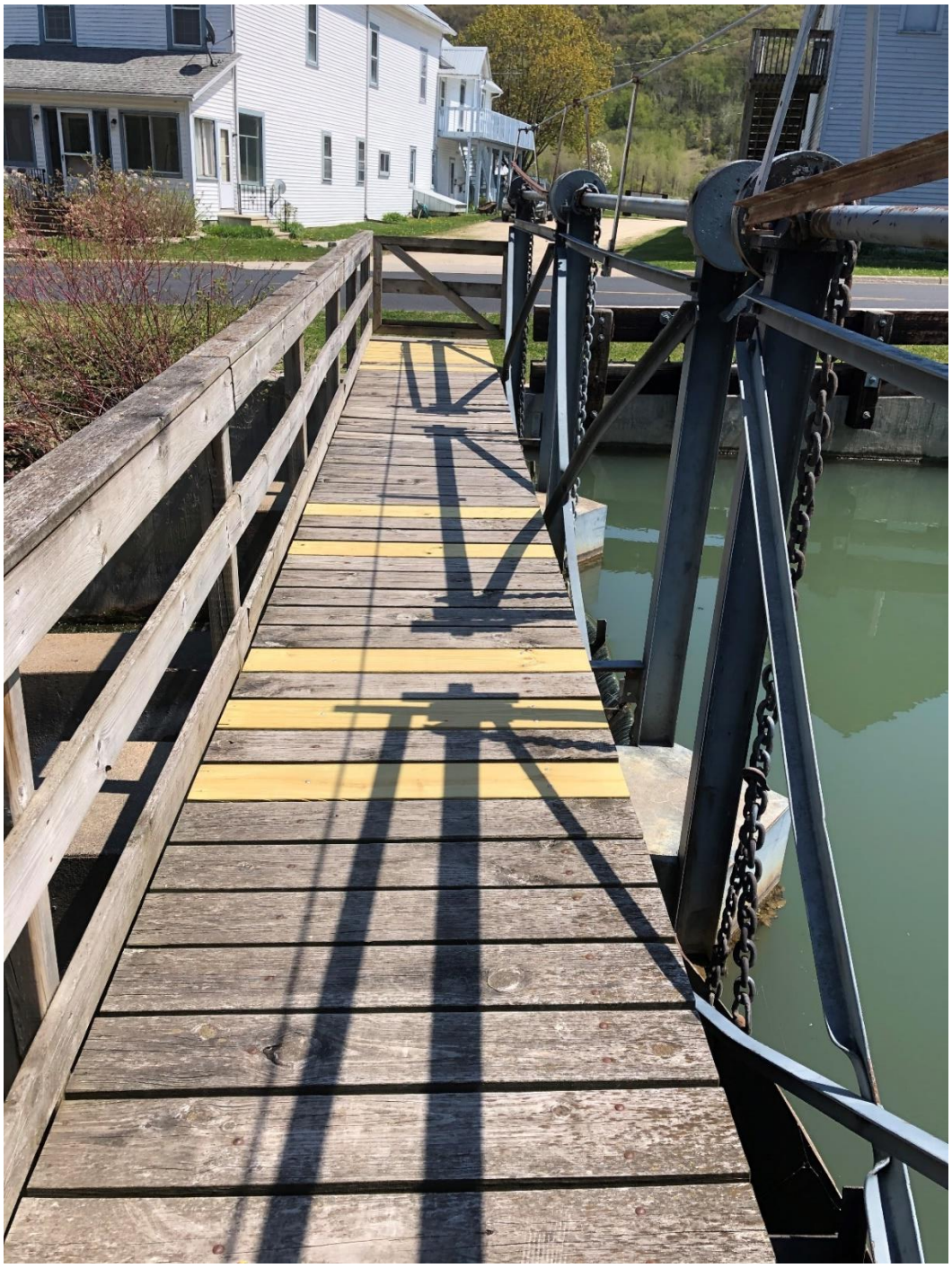
Does the organization have a fiscal agent for this project?

No



No Scale

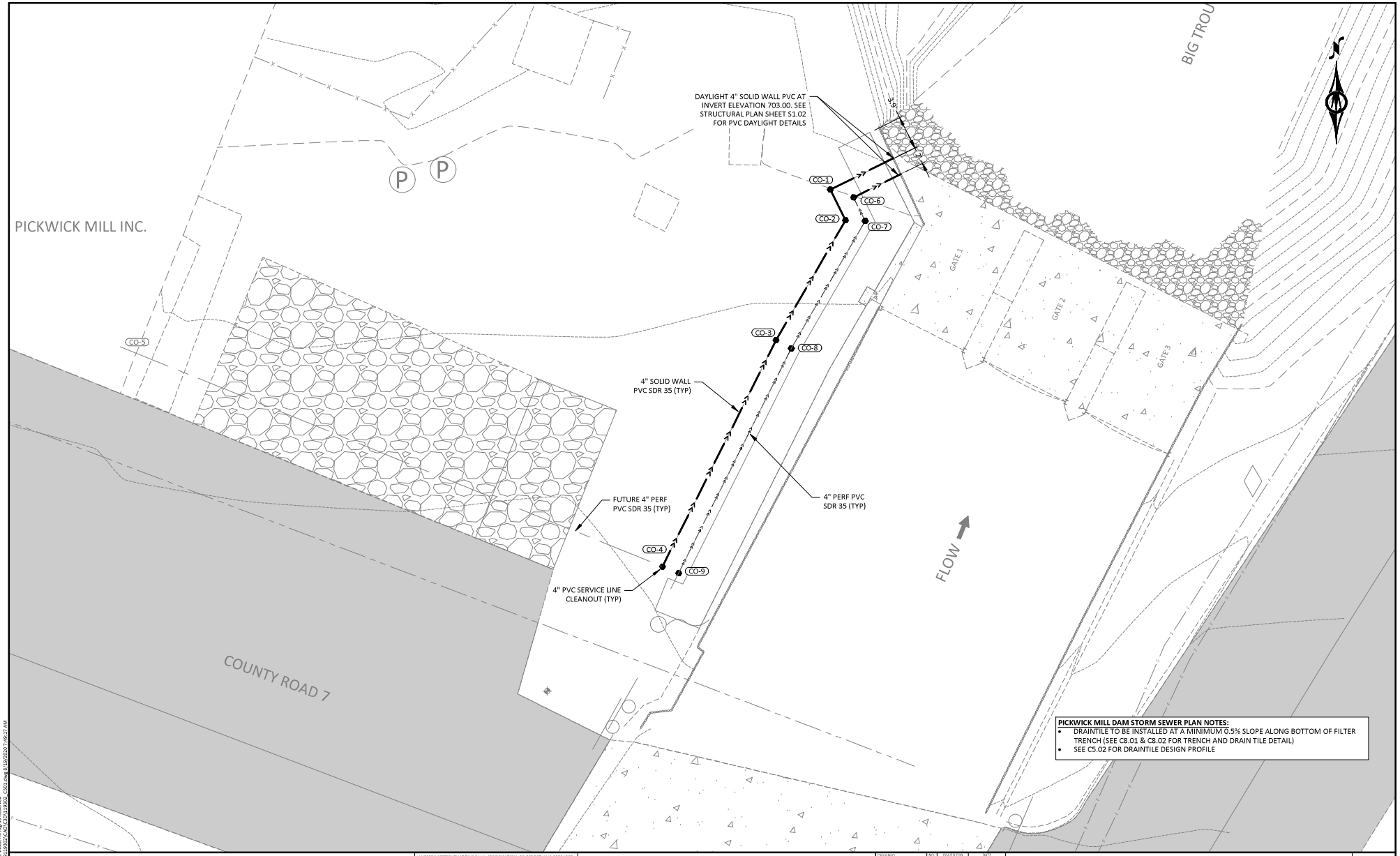
Pickwick Mill Dam
Site plan



Dam operators catwalk proposed to be reinforced and remounted to dam structure to provide additional safety.

West chute wall proposed to be excavated, tuckpointed, and a clay embankment and drain tile installed on the land side of the wall to address leakage through wall.

A portion of the west dam abutment wall proposed to be replaced.



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SCALE FEET

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

DUSTIN J. DEFELICE
LIC. NO. 54157 DATE 08/19/2020

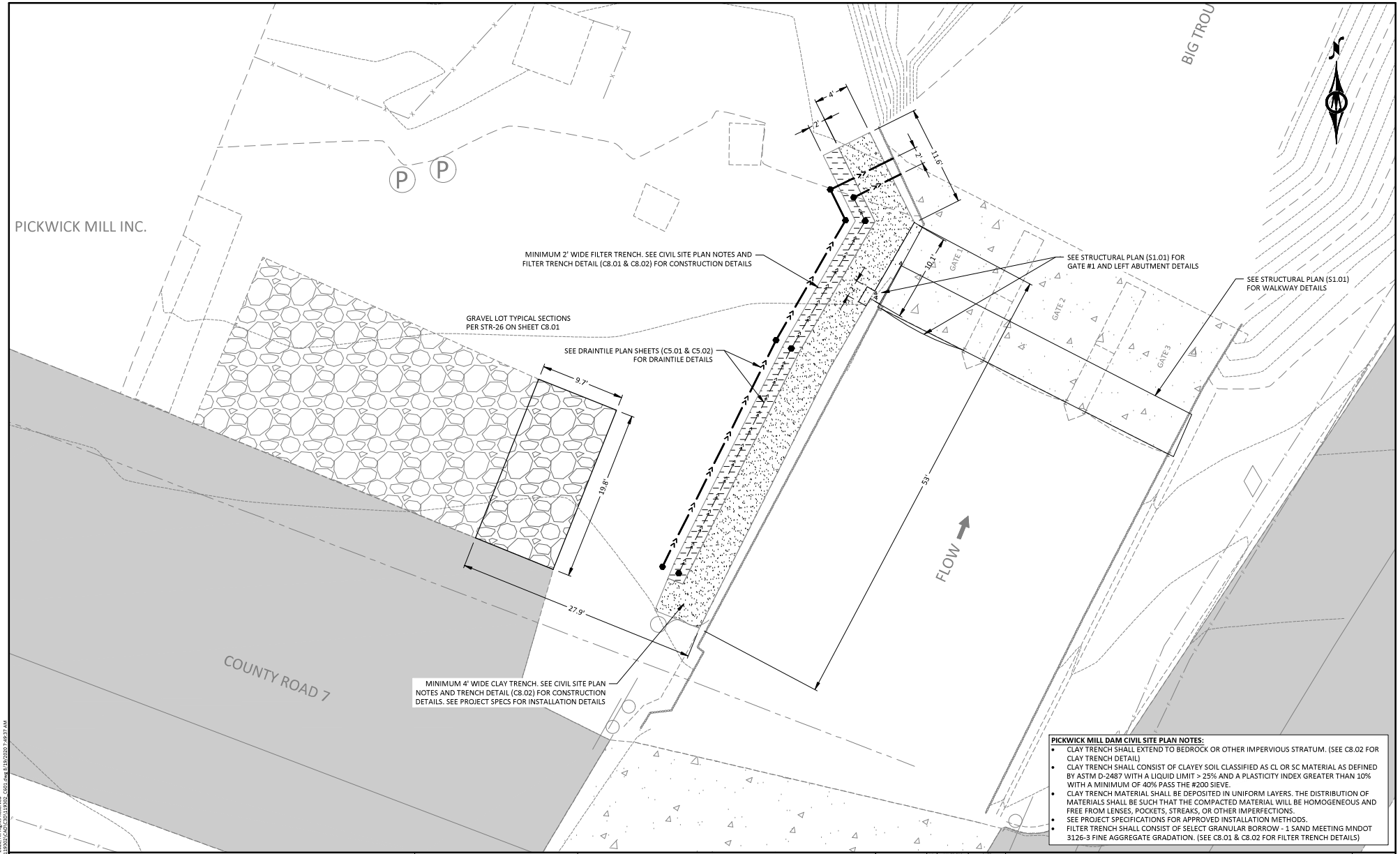
BOLTON & MENK

DESIGNED	DJD
DRAWN	DJD
CHECKED	EEL
CLIENT PROJ. NO.	H19.119302

NO.	ISSUED FOR	DATE

PICKWICK MILL, INC
PICKWICK MILL DAM REHABILITATION PROJECT
DRAIN TILE PLAN

SHEET C5.01



PICKWICK MILL DAM CIVIL SITE PLAN NOTES:

- CLAY TRENCH SHALL EXTEND TO BEDROCK OR OTHER IMPERVIOUS STRATUM. (SEE C8.02 FOR CLAY TRENCH DETAIL)
- CLAY TRENCH SHALL CONSIST OF CLAYEY SOIL CLASSIFIED AS CL OR SC MATERIAL AS DEFINED BY ASTM D-2487 WITH A LIQUID LIMIT > 25% AND A PLASTICITY INDEX GREATER THAN 10% WITH A MINIMUM OF 40% PASS THE #200 SIEVE.
- CLAY TRENCH MATERIAL SHALL BE DEPOSITED IN UNIFORM LAYERS. THE DISTRIBUTION OF MATERIALS SHALL BE SUCH THAT THE COMPACTED MATERIAL WILL BE HOMOGENEOUS AND FREE FROM LENSES, POCKETS, STREAKS, OR OTHER IMPERFECTIONS.
- SEE PROJECT SPECIFICATIONS FOR APPROVED INSTALLATION METHODS.
- FILTER TRENCH SHALL CONSIST OF SELECT GRANULAR BORROW - 1 SAND MEETING MNDOT 3126-3 FINE AGGREGATE GRADATION. (SEE C8.01 & C8.02 FOR FILTER TRENCH DETAILS)

HORZ. SCALE 0 5 10 FEET

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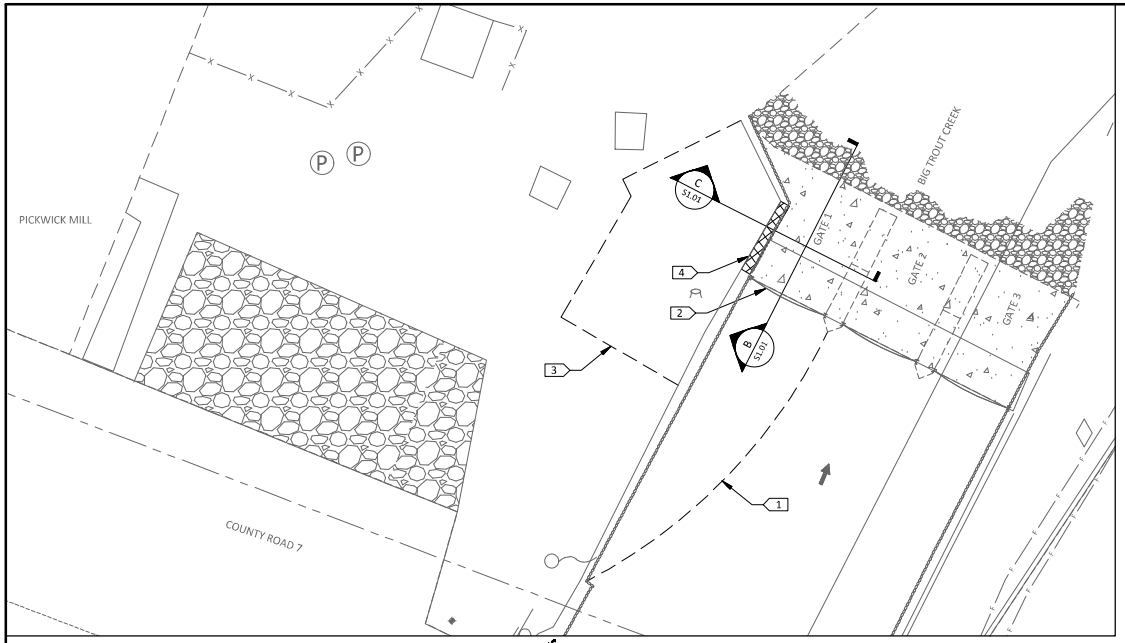
PICKWICK MILL, INC
PICKWICK MILL DAM REHABILITATION PROJECT
CIVIL SITE PLAN

SHEET C6.01



A S1.01 PICKWICK MILL DAM PLAN
1/8" = 1'-0"

GENERAL NOTES:

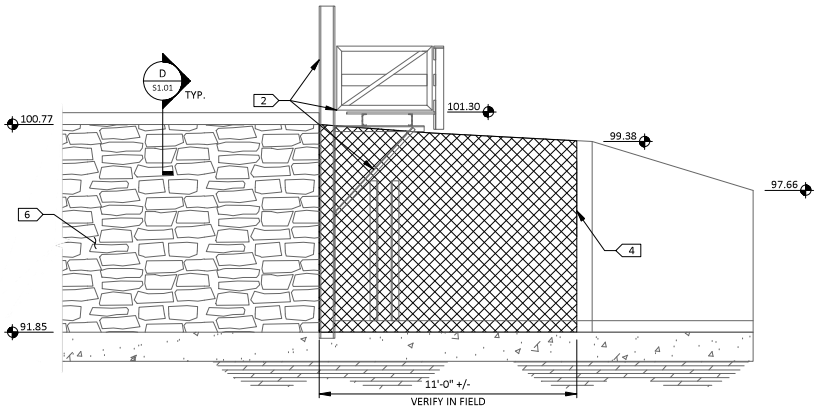
1. SCALES SHOWN ARE BASED ON FULL SIZE (22X34) DRAWINGS. REDUCE SCALES BY 2 FOR 11X17 DRAWINGS.
2. ALL DEPTHS AND LOCATIONS ARE APPROXIMATE. FIELD VERIFY ALL DIMENSIONS AND NOTIFY ENGINEER OF ANY DISCREPANCIES.

KEYNOTES:

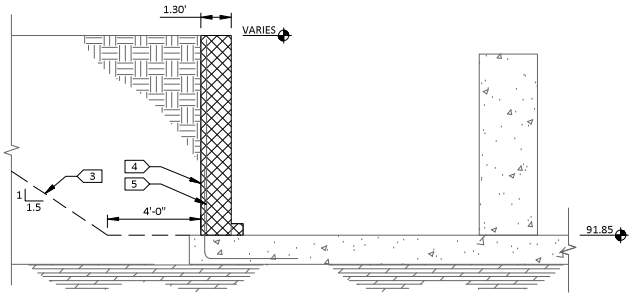
1. TEMPORARY FLOW DIVERSION BY CONTRACTOR DESIGN.
2. REMOVE, SALVAGE AND REINSTALL GATE, FRAME, AND WALKWAY SUPPORT STRUCTURE. REMOUNT WALKWAY STRUCTURE PER DETAIL E/S1.01.
3. APPROXIMATE LIMITS OF EXCAVATION PRIOR TO SAWCUTTING AND DEMOLITION OF WALL.
4. SELECTIVELY DEMOLISH EXISTING CONCRETE WALL AND DISPOSE OF DEBRIS.
5. PROTECT EXISTING REINFORCEMENT PROJECTING FROM CONCRETE SILL.
6. REPOINT EXISTING STONE WALL AS ORDERED BY THE ENGINEER. SEE DETAIL D/S1.01 FOR REQUIREMENTS.

LEGEND:

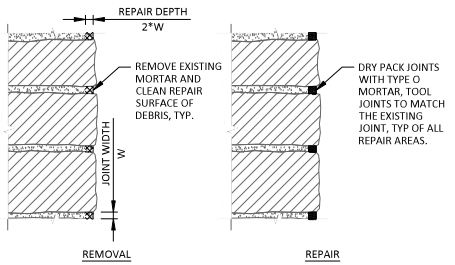
- EXISTING CONCRETE
- EXISTING BEDROCK
- EXISTING FILL
- EXISTING GRAVEL DRIVEWAY
- DEMOLITION / REMOVAL



B S1.01 WEST DAM WALL ELEVATION
3/8" = 1'-0"



C S1.01 WEST DAM WALL SECTION
3/8" = 1'-0"



D S1.01 STONE WALL MORTAR REPOINTING DETAIL
NO SCALE

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

ERIC E. LEAGJELD
LIC. NO. XXXXX DATE MM/DD/YYYY

BOLTON & MENK

DESIGNED	EEL
DRAWN	DJD
CHECKED	EEL
CLIENT PROJ. NO.	H19.119302

NO.	ISSUED FOR	DATE

PICKWICK MILL, INC
PICKWICK MILL DAM REHABILITATION PROJECT
WALL REMOVAL PLAN AND SECTIONS

SHEET
S1.01