



**PROJECT NARRATIVE**

**MONONA, WISCONSIN**

**January 2009**

## PROJECT DESCRIPTION

Menards is proposing an expansion and remodel of its existing store located in Monona, Wisconsin. What follows is a brief description of the proposed improvements.

### Yard Expansion – Lot 3 (west of the ditch)

1. Construction of three clear span bridges to allow vehicular and pedestrian traffic to cross the ditch.
2. Construction of a 53,237 square foot drive thru warehouse that will also include a shipping center. The warehouse is a cold storage building that will include sprinkler system.
3. Construction of 14' wood fence to secure the new yard area.

### Existing Store Site (east of the ditch)

1. The front store façade will be remodeled to appear similar to new Menards stores.
2. The existing store will be remodeled to include a new garden center and additional heated retail space.
3. The fence and yard located between Menards and Denny's will be removed and replaced with additional parking.
4. The 14' fence located along East Broadway (east of the ditch) will be replaced with a 10' wrought iron fence with a 4' concrete base.

### Storm Water Improvements (Lot 3 only)

Under current conditions, storm water runoff sheet flows to the east across the existing pavement (truck parking) and into the existing wetlands and ditch. Under proposed conditions, storm water runoff will still flow to the east, however it will be treated by the use of grass swales (2), a series of level spreaders with under drains (oil and grease separator), and grass filter strips. There will be one (1) 12" pipe that will discharge into the wetlands/ditch.

## **PERMITS REQUIRED**

1. Zoning Permit – City of Monona
2. Storm Water Permit – City of Monona
3. Erosion Control Permit – City of Monona
4. Notice of Intent - WIDNR
5. General Permit: Grading - WIDNR
6. General Permit: Clear Span Bridges - WIDNR
7. General Permit: Culvert - WIDNR
8. Work in the Right-of-Way Permit - Dane County

\*\* In addition to the above permits, both the Army Corp of Engineers and the Capital Area Regional Planning Commission will be contacted and/or sent construction plans. Permits from these agencies are not anticipated.

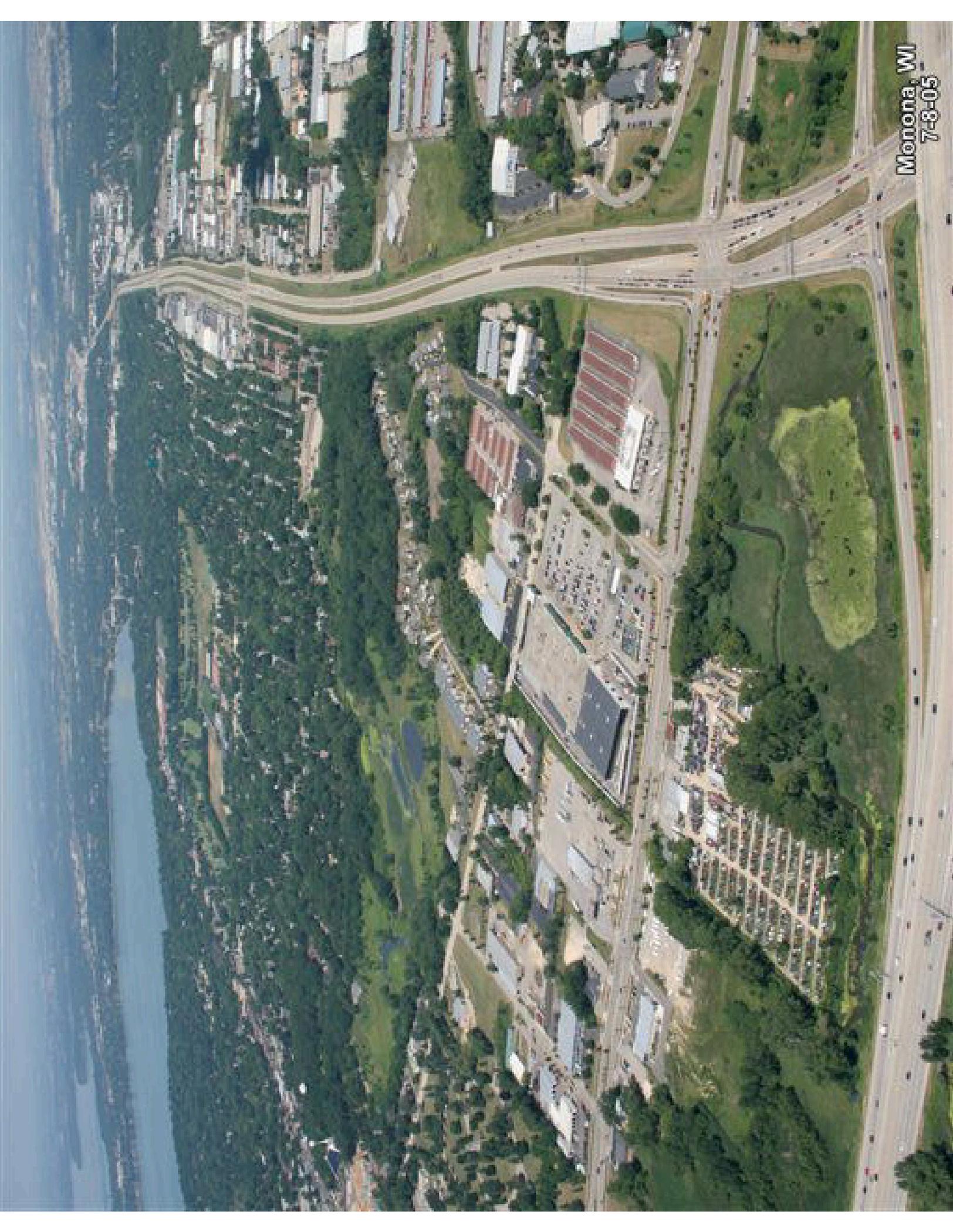
## DESIGN TEAM

### **Project Manager**

Theron Berg  
Menard, Inc. (Menards)  
4777 Menard Drive  
Eau Claire, WI 54703  
Phone: 715-876-2391  
Fax: 715-876-5960

### **Civil Engineer**

Sean Bohan, P.E.  
TEC Design  
5828 Arndt Lane  
Eau Claire, WI 54703  
Phone: 715-552-0330



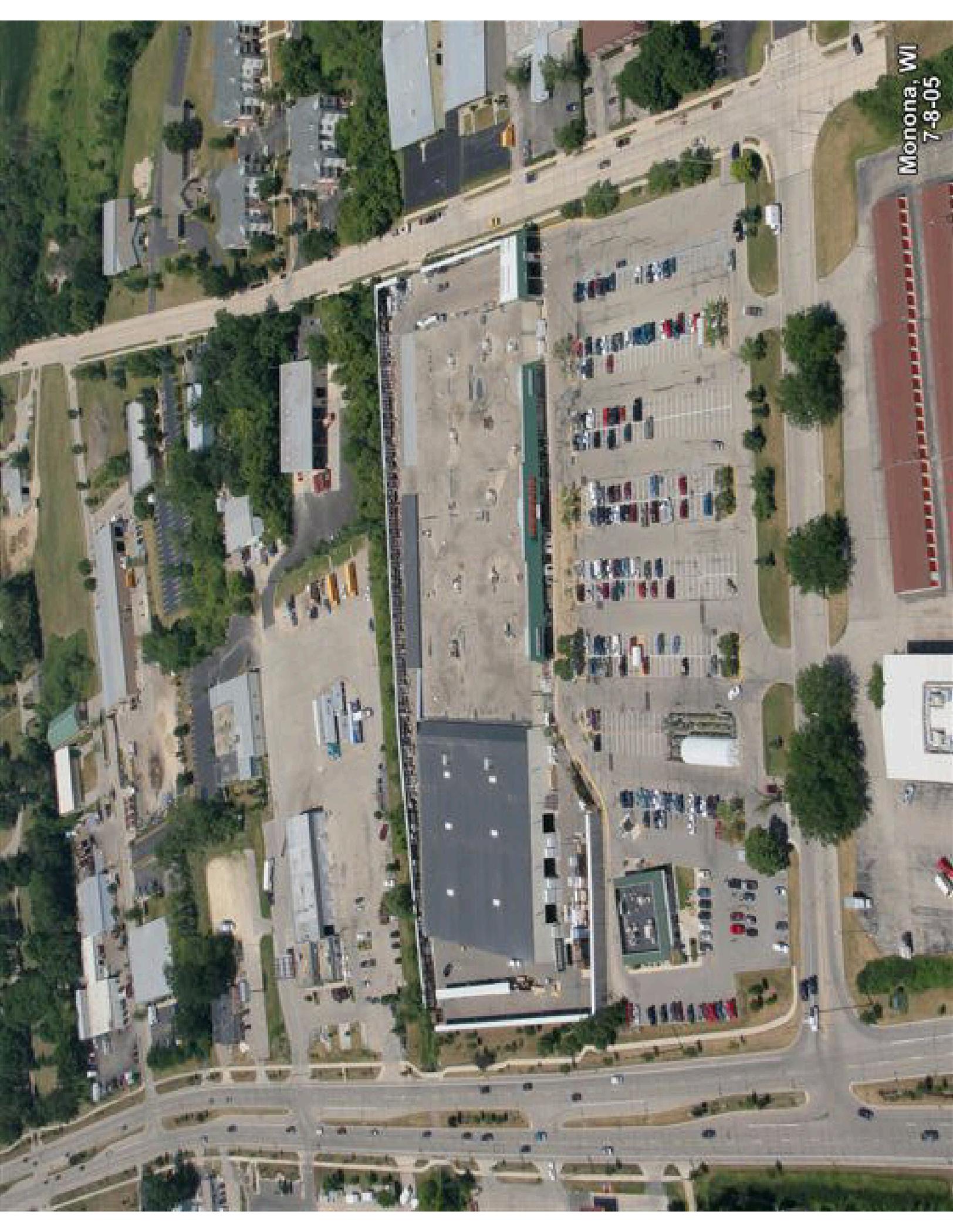
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7-8-05



Monona, WI  
7-8-05



Monona, WI  
7-8-05

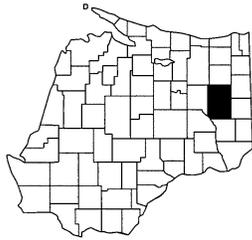


Monona, WI  
7-8-05

# MENARDS IMPROVEMENT PLAN

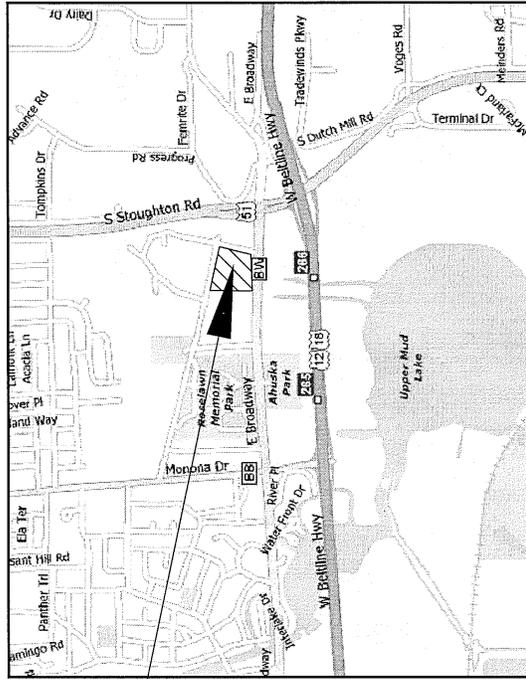
## 6401 Copps Ave

### Monona, WI 53716



DANE COUNTY

### PROJECT LOCATION



CITY CONTACTS	
CITY ENGINEER	Rich Velo Engineering/Public Works 5211 Schuler Road Monona, WI 53716 (608) 222-2525
FIRE CHIEF	Robert Van Etten, Jr. FIRE DEPARTMENT 5211 Schuler Road Monona, WI 53716 (608) 222-2525
GAS/ELECTRIC	MG&E 133 S Blair St. Madison, WI 53703 (608) 252-7007
CABLE	Charter 2701 Daniels St. Madison, WI 53716 1-800-581-0081

\*\*\* DIGGERS HOTLINE 1-800-242-8511

DEVELOPER:  
MENARD, INC.  
4777 MENARD DRIVE  
EAU CLAIRE, WISCONSIN 54703  
CONTACT: BRIAN HILDERMAN  
PH : (715) 876-2131  
FAX : (715) 876-2423

ATTORNEY: THERON BERG  
PH: (715) 876-2391  
MENARD, INC.  
4777 MENARD DRIVE  
EAU CLAIRE, WISCONSIN 54703

ALL BIDDING QUESTIONS SHALL BE  
ADDRESSED TO THE MENARDS  
CONTACT PEOPLE

### LOCATION MAP

SCHEDULE OF REQUIRED PERMITS	DATE SUBMITTED	APPROVAL
EROSION CONTROL PERMIT	-	-
STORM WATER PERMIT	-	-
CITY OF MONONA	-	-
WIDNR-NOTICE OF INTENT	-	-
WIDNR-GENERAL PERMIT:	-	-
GRADING	-	-
WIDNR-GENERAL PERMIT:	-	-
CLEAR SPAN BRIDGES	-	-
WIDNR-GENERAL PERMIT:	-	-
CULVERT	-	-
WORK IN THE R/W	-	-
DANE COUNTY	-	-

**PRELIMINARY**

### LEGEND

EXISTING

PROPOSED

- BENCHMARK
- CONTROL POINT
- SID
- CURB STOP
- WELL
- HYDRANT
- GATE VALVE
- CURB INLET
- AREA DRAIN
- SAN MAN
- STORM MAN
- GAS MANHOLE
- LIGHT POLE
- UTILITY POLE
- GUY WIRE
- HULL BOX
- ELEC PED
- CABLE PED
- MAILBOX
- TELE PIPE
- IRON PIPE
- ROW POST
- REBAR
- WATER MAIN
- SANITARY SEWER
- STORM SEWER
- OVERHEAD UTILITY
- TELEPHONE LINE
- GAS LINE
- CABLE TV LINE
- FENCE LINE
- FENCE TREES
- MARCH
- FENCE LINE
- MOVEN WIRE FENCE
- SLY FENCE
- RETAINING WALL
- CONTOURS MAJOR
- CONTOURS MINOR
- EROSION BARRIER LOG
- RIP RAP
- EROSION MAT

### ABBREVIATIONS:

- B.C.= BACK OF CURB
- BLK= BLOCK NUMBER
- BOT.= BOTTOM (ELEV)
- CL.= CENTERLINE
- C.S.= CURB STOP
- ELEV.= ELEVATION
- EOP.= EDGE OF PAVEMENT
- EX.= EXISTING
- FES= FLARED END SECTION
- FF= FINISHED FLOOR (ELEV)
- FL.= FLOWLINE
- GF.= GARAGE FLOOR (ELEV)
- G.L.G.= GROUND LINE GROOVE
- HWL.= HIGH WATER LEVEL
- INV.= INVERT
- LF.= LINEAR FEET
- LO.= LOOKOUT STYLE HOME
- LT.= LEFT
- MIN.= MINIMUM
- NWL.= NORMAL WATER LEVEL
- P.C.= POINT OF CURVE
- P.R.C.= CURVE REVERSAL POINT
- PT.= POINT OF TANGENCY
- RAD.= RADIUS
- RT.= RIGHT
- R/W.= RIGHT OF WAY
- SAN.= SANITARY SEWER
- SP.= SPOT ELEVATION
- STA.= STATION
- STM.= STORM SEWER
- TC.= TOP OF CURB
- TYP.= TYPICAL
- W.= WATER FITTINGS
- WTR.= WATER
- WM.= WATERMAIN
- WD.= WALKOUT STYLE HOME

### SHEET SCHEDULE

SHT NO	TITLE SHEET	DESCRIPTION
1	TITLE SHEET	
2	EXISTING SITE PLAN	
3	DEMOLITION PLAN	
4	SITE LAYOUT PLAN	
5	<del>EROSION CONTROL PLAN</del>	
6	GRADING PLAN	
7	EROSION CONTROL PLAN	
8	UTILITY PLAN	
10-11	STANDARD DETAILS	
12-14	SPECIFICATIONS	

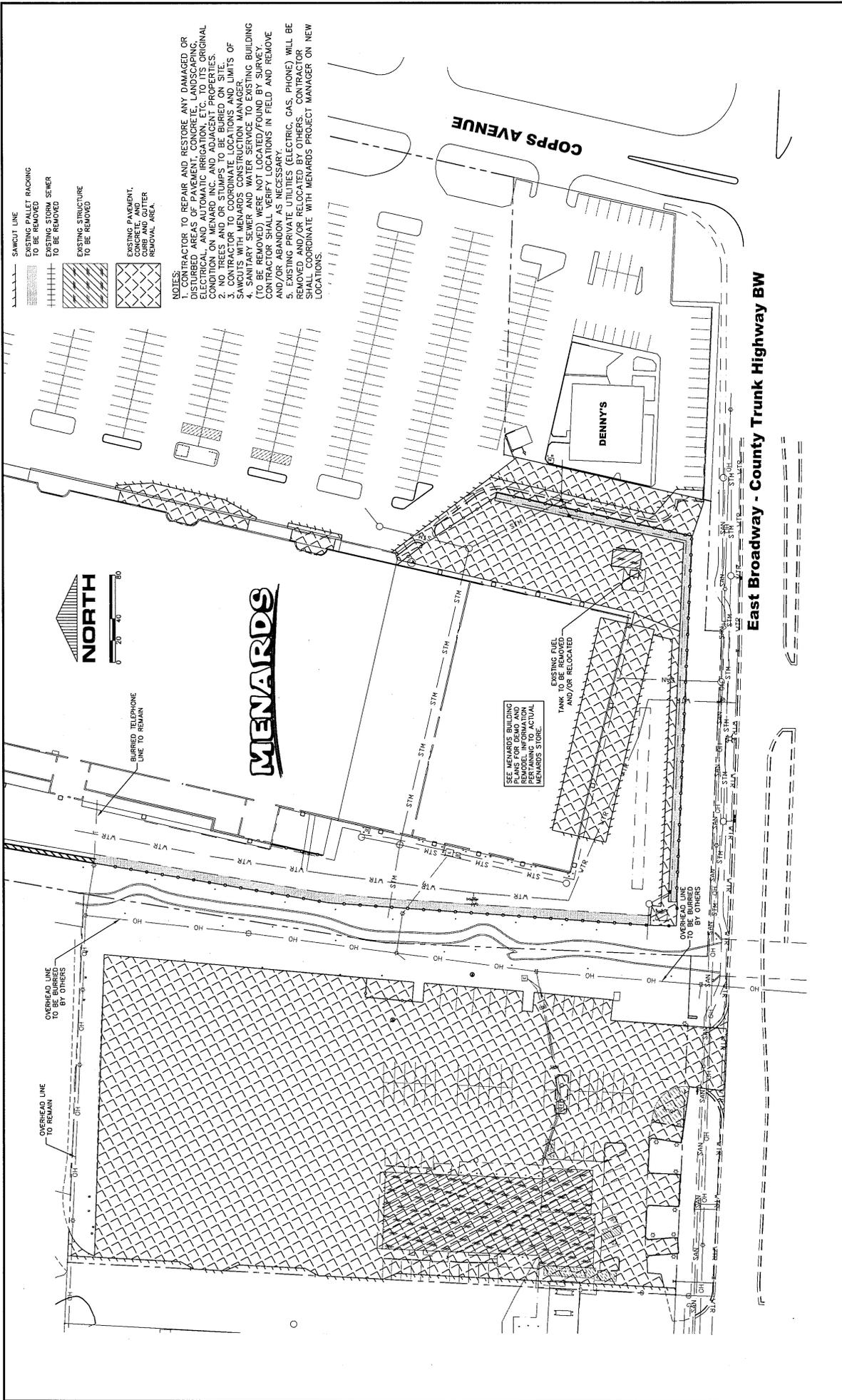
# TEC DESIGN

YOUR SITE SPECIALIST  
TECHNICAL ENGINEERING CONCEPTS & DESIGN

5828 ARNOT LANE  
EAU CLAIRE, WI 54701  
PH 715-552-0330  
FX 715-552-0332  
INFO@TECDSIGN.COM

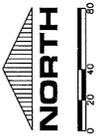
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- NOTES:**
1. CONTRACTOR TO REPAIR AND RESTORE ANY DAMAGED OR REMOVED CURB AND GUTTER TO ORIGINAL CONDITION ON MENARD INC. AND ADJACENT PROPERTIES.
  2. NO TREES AND OR STUMPS TO BE BURIED ON SITE.
  3. CONTRACTOR TO COORDINATE LOCATIONS AND LIMITS OF SAWCUTS WITH MENARD'S WATER SERVICE TO EXISTING BUILDING (TO BE REMOVED) WERE NOT LOCATED/FOUND BY SURVEY AND/OR ABANDON AS NECESSARY.
  4. CONTRACTOR SHALL VERIFY LOCATIONS IN FIELD AND REMOVE EXISTING PRIVATE UTILITIES (ELECTRIC, GAS, PHONE) WILL BE REMOVED AND/OR RELOCATED BY OTHERS. CONTRACTOR SHALL COORDINATE WITH MENARD'S PROJECT MANAGER ON NEW LOCATIONS.

- SAWCUT LINE
- EXISTING PALLET RACKING TO BE REMOVED
- EXISTING STORM SEWER TO BE REMOVED
- EXISTING STRUCTURE TO BE REMOVED
- EXISTING PAVEMENT, CURB AND GUTTER REMOVAL AREA



**MENARDS**

COPS AVENUE

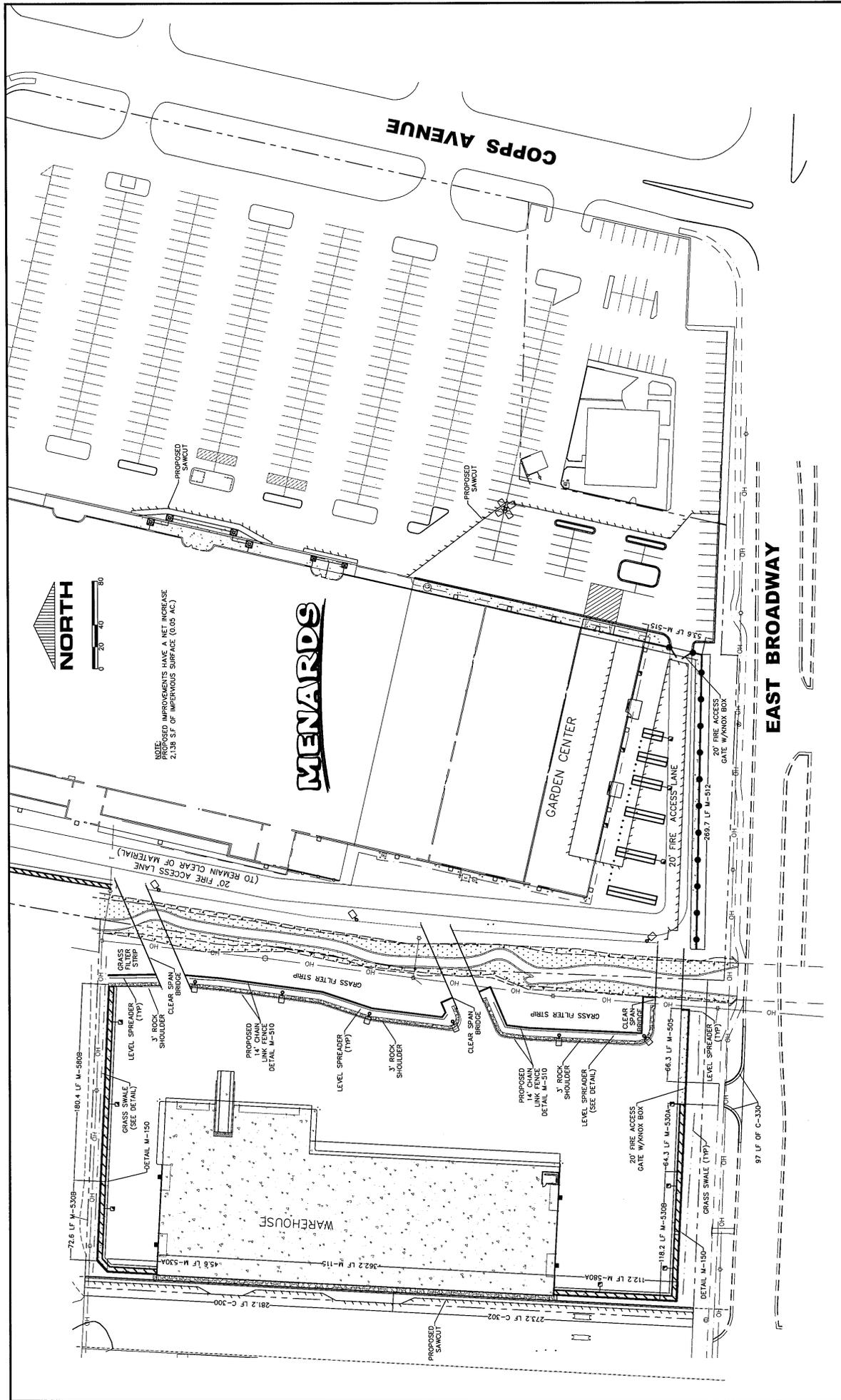
DENNY'S

SEE MENARDS BUILDING PLANS FOR DEMO AND BURIAL OF ALL UTILITIES PERTAINING TO ACTUAL MENARDS STORE.

EXISTING FUEL TANK TO BE REMOVED AND/OR RELOCATED

**East Broadway - County Trunk Highway BW**

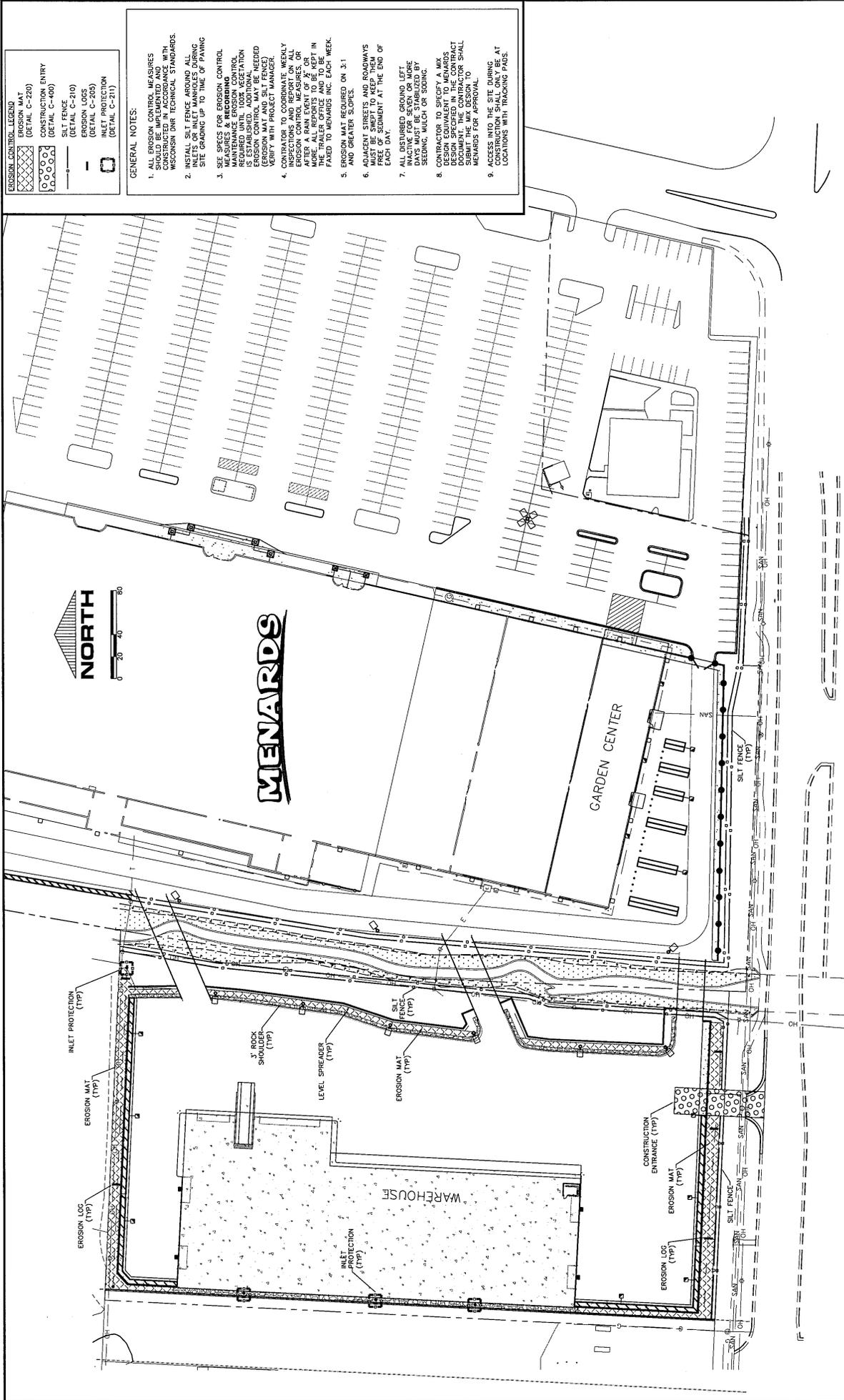
NO.	DATE	REVISIONS	DRAFTED BY	DESIGN BY	CHECKED	PROJ. NO. 08205	TEC DESIGN YOUR SITE SPECIALIST TECHNICAL ENGINEERING CONCEPTS & DESIGN	5828 ARNDT LANE EAGLE CREEK, WISCONSIN TEL: 715-532-8332 FAX: 715-532-8332 TEC DESIGN, INC.	DEMO PLAN	MENARDS IMPROVEMENT PLAN 8401 COPS AVENUE MOROKA, WI. 53176	DWG. NAME DEMO.dwg	3
											DATE 07/09	14



NOTE: PROPOSED IMPROVEMENTS HAVE A NET INCREASE  
2,138 S.F. OF IMPERVIOUS SURFACE (0.05 AC.)

NO.	DATE	REVISIONS	DRAFTED BY	DESIGN BY	CHECKED	PROJ. NO.	TEC DESIGN		SITE LAYOUT PLAN	MENARDS IMPROVEMENT PLAN COPPS AVENUE MONONA, WI 53716	DWG. NO.	SHEET NO.
							YOUR SITE SPECIALIST	TECHNICAL ENGINEERING CONCEPTS & DESIGN				
						08205	8828 ARNDT LANE EAST BROADWAY MONONA, WI 53716 TEL: 715-532-4332 WWW.TECDESIGN.COM				4	14





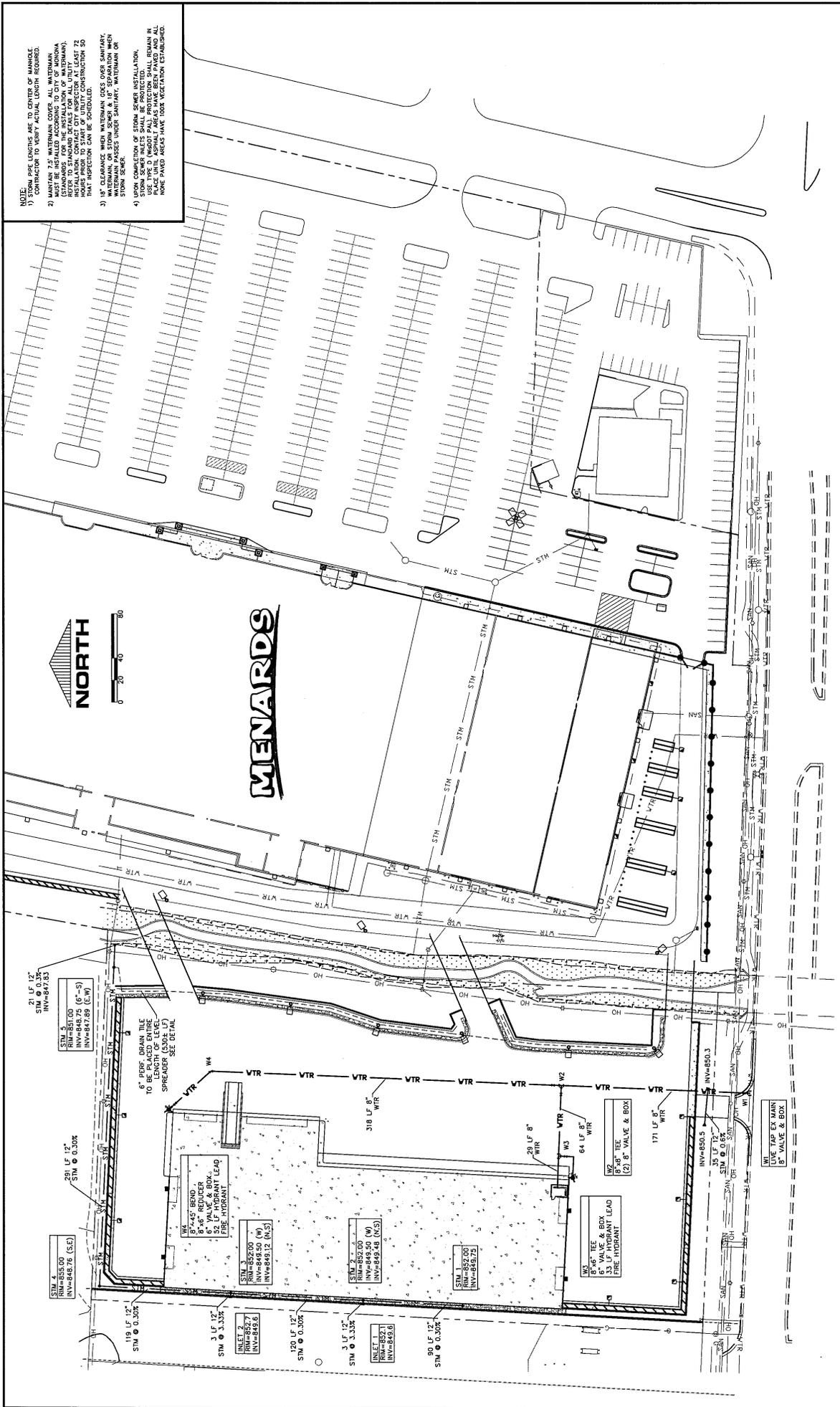
**EROSION CONTROL LEGEND**

[Cross-hatched pattern]	EROSION MAT (DETAIL C-220)
[Dashed line]	CONSTRUCTION ENTRY (DETAIL C-400)
[Dotted pattern]	SILT FENCE (DETAIL C-210)
[Diagonal lines]	EROSION LOGS (DETAIL C-205)
[Solid line]	INLET PROTECTION (DETAIL C-217)

- GENERAL NOTES:**
1. ALL EROSION CONTROL MEASURES SHALL BE CONSTRUCTED IN ACCORDANCE WITH WISCONSIN DNR TECHNICAL STANDARDS.
  2. INSTALL SILT FENCE AROUND ALL EXPOSED EROSION CONTROL MEASURES. SITE GRADING UP TO TIME OF PAVING.
  3. SEE SPEC FOR EROSION CONTROL MAINTENANCE. EROSION CONTROL MEASURES SHALL BE MAINTAINED UNTIL ADDITIONAL EROSION CONTROL MAY BE NEEDED (EROSION CONTROL MAINTENANCE CONTRACTOR TO COORDINATE WEEKLY INSPECTIONS AND REPORT ON ALL EROSION CONTROL MEASURES OR MORE. ALL REPORTS TO BE KEPT IN THE TRAILER OFFICE AND TO BE MADE AVAILABLE TO THE OWNER. PAPER TO BE MAINTAINED FOR ONE WEEK.
  4. CONTRACTOR TO COORDINATE WEEKLY INSPECTIONS AND REPORT ON ALL EROSION CONTROL MEASURES OR MORE. ALL REPORTS TO BE KEPT IN THE TRAILER OFFICE AND TO BE MADE AVAILABLE TO THE OWNER. PAPER TO BE MAINTAINED FOR ONE WEEK.
  5. SAND MATS SHALL BE ON 3:1 AND GREATER SLOPES.
  6. ALL SLOPE STABILIZATION AND GRASSWAYS MUST BE SWEEPED TO KEEP THEM FREE OF SEDIMENT AT THE END OF EACH DAY.
  7. ALL DISTURBED GROUND LEFT EXPOSED SHALL BE STABILIZED BY SEEDING, MULCH OR SOILING.
  8. CONTRACTOR TO SPECIFY A MIX DESIGN FOR ALL STABILIZATION MATERIALS. THE CONTRACTOR SHALL BE RESPONSIBLE FOR APPROVAL.
  9. ACCESS INTO THE SITE DURING CONSTRUCTION SHALL ONLY BE AT LOCATIONS WITH TRACKING PADS.

NO.	DATE	REVISIONS	DRAFTED BY	DESIGN BY	CHECKED	TEC DESIGN		EROSION CONTROL PLAN	MENARDS IMPROVEMENT PLAN 8400 COPPS AVENUE MILWAUKEE, WI 53218	DWG. NAME	7
						PROJ. NO. 08205	YOUR SITE SPECIALIST TECHNICAL ENGINEERING CONCEPTS & DESIGN			EROSION CONTROL PLAN	EROSION CONTROL PLAN
						828 ARDENT LANE EAST WAUKESHA, WI 53001 TEL: 715-532-8332 FAX: 715-532-8332 WWW.TECDESIGN.COM				DATE	07/09
											14

NOTE:  
 1) STORM PIPE LENGTHS ARE TO CENTER OF MANHOLE. CONTRACTOR TO VERIFY ACTUAL LENGTH REQUIRED.  
 2) MAINTAIN 7.5' WATERMAN COVER, ALL WATERMANS (STANDARDS FOR THE INSTALLATION OF WATERMANS). INSTALLATION SHALL BE IN ACCORDANCE WITH ALL CITY STANDARDS. CONTACT CITY INSPECTOR AT LEAST 72 HOURS BEFORE ANY CONSTRUCTION. ALL CONSTRUCTION SHALL BE SCHEDULED TO BE COMPLETED BY 10:00 AM.  
 3) 18" CLEARANCE WHEN WATERMAN COES OVER SANITARY WATERMAN, OR STORM SEWER & 18" SEPARATION WHEN WATERMAN PASSES UNDER SANITARY, WATERMAN OR STORM SEWER.  
 4) UPON COMPLETION OF STORM SEWER INSTALLATION, STORM SEWER INLETS SHALL BE PROTECTED. ALL INLETS SHALL BE PROTECTED WITH ASPHALT PAVES HAVE BEEN PAVED AND ALL HOME PAVED AREAS HAVE 100% VEGETATION ESTABLISHED.



NO.	DATE	REVISIONS	DRAFTED BY	DESIGN BY	CHECKED	PROJ. NO.	08205
						TEC DESIGN YOUR SITE SPECIALIST TECHNICAL ENGINEERING CONCEPTS & DESIGN	
OVERALL UTILITY PLAN						MENARDS IMPROVEMENT PLAN 8401 COPPS AVENUE MORGANA, W. 33716	
DRG. NAME UTILITY.dwg						8	14
DATE 01/09							





**SITE WORK SPECIFICATIONS  
FOR MENARDS  
MONROE, WISCONSIN**

1. **SUMMARY**
  - A. Work includes grading, underground utilities, concrete curb and gutter, paving, site restoration and incidental items as shown and as specified.
  - B. Construction limits shall be within owner's property boundaries and construction elements as shown on Drawings.
2. **ABBREVIATIONS**
  - AASHTO- American Association of State Highway and Transportation Officials
  - ANSI- American National Standards Institute
  - ASME- American Society for Testing and Materials
  - ASTM- American Society for Testing and Materials
  - NFPA- National Fire Protection Association
  - WDOT- Wisconsin Dept. of Transportation
  - WDNR- Wisconsin Dept. of Natural Resources
3. **DEFINITIONS**
  - A. References to "WDOT Std. Spec." shall mean Wisconsin Dept. of Transportation, Standard Specifications for Highway and Structure Construction, 1995 edition, including current Supplemental Specifications.
  - B. References to "Wisconsin Dept. of Transportation Standard Specifications for Sewer & Water Construction" shall mean the 1986 edition and its addenda.
  - C. References to "Owner" shall mean Menard, Inc.
  - D. References to "Engineer" shall mean Owner's designated representative.
4. **PERMITS AND CODES**
  - A. Contractor shall obtain all necessary permits, licenses and pay all fees, taxes, and royalties unless otherwise indicated. Comply with local and municipal ordinances and applicable state and national codes.
  - B. Contractor shall coordinate and cooperate with all utility owners in the removal and rearrangement of existing utility facilities to minimize interruption to utility services and duplication of work by the utility. The contractor shall give notice to the proper authorities in writing at least 10 business days prior to construction operations at least three working days prior to construction operations.
5. **SURVEYS**
  - A. Contractor shall provide baseline reference points and benchmarks as indicated on Drawings. Contractor shall provide all other survey staking and layout as required to complete the work. Contractor to provide 3 sets of As Builts to Menards.
6. **DESIGN REQUIREMENTS**
  - A. Concrete shall be specified for determination of concrete's job mix(es) from within the master limits responsible by WDOT, Std. Spec. Subsection 501.5, Mix(es) shall be derived from tests performed by a qualified testing agency. Mix designs shall be submitted to Owner for approval.
  - B. Asphaltic Concrete: Contractor shall be responsible for determination of asphaltic concrete material of some brands as used in a previous mix design may be used. Mix designs shall be submitted to Owner for approval. See Menards General Specifications for addition on mix design requirements.
7. **TESTING**
  - A. Owner shall arrange and pay for soil and base course testing as required by the Contract Documents and as follows:
    1. At least one field density test for every 10,000 sq. ft. of fill placed within building and pavement areas with at least one test for every 2 ft. of fill placed.
    2. Utility Trench Backfill: Perform at least two tests in random compacted backfill for every 100 lineal feet of trench under pavements and roads.
    3. Retention Pond Dikes: Perform at least one field density test for every 100 lin. ft. of dikes in random fill layers.
    4. Base Course: Perform at least one field density test for every 10,000 sq. ft. of base course placed. The above tests indicated that materials have been placed at a lower density than required, perform additional tests as required to determine the extent of the deficiency.
  - B. Owner shall arrange and pay for asphalt and concrete testing as required by the Contract Documents.
  - C. Contractor shall arrange and pay for testing of pipe lines as required below.
8. **VERIFICATION OF CONDITIONS**
  - A. Contractor shall verify locations and dimensions as shown and inspect surfaces that are to receive work before proceeding. Contractor shall be solely responsible for accuracy of measurements and laying out of its work. Notify Owner in writing in case of unsuitable conditions, defective substrates or discrepancies in Contract Documents. Starting of work shall imply acceptance of conditions.
9. **PROTECTION**
  - A. Protect improvements on site and on adjoining properties. Provide barricades, coverings or types of protection as necessary to prevent damage and to safeguard against injury. Restore existing conditions damaged by the work or improvements which required temporary removal during construction.

**11. TRAFFIC CONTROL**

- A. Furnish and maintain construction barricades and traffic control devices when working on public streets. Barricades and traffic control devices shall comply with WDOT Standards.

**12. EROSION CONTROL**

- A. Conduct construction operations in a manner to minimize soil erosion. At a minimum, ditches, ditch checks, riprap, seeding, sodding, jute mat and other measures to insure that soil from the site does not enter waterways or adjoining property.
- B. Erosion control measures shall comply with the Drawings; the Erosion Control and Stormwater Management Plan prepared by Owner, and the planning, design and maintenance manual for Chapter 3 of the WDNR Wisconsin Construction Site Best Management Practice Handbook.
- C. Contractor shall conduct the following inspections:
  1. Weekly inspections of implemented erosion and sediment controls.
  2. Inspections of erosion and sediment controls within 24 hours after o
- D. Contractor shall prepare weekly reports of all inspections that include:
  1. Date, time and exact place of inspection.
  2. Name of individual who performed inspection.
  3. Description of erosion and sediment control implementation and maintenance performed.
  4. A description of any erosion and sediment control implementation and maintenance performed.
  5. A description of the present phase of construction at site.

**13. EROSION MAT**

- A. Erosion mat shall be a uniform web of interlocking wood excelsior fibers. Erosion Control blanket achieve adequately cured and barbed fibers. The blanket shall be of uniform thickness with the rolled strips. The width of the strips shall be 48 inches plus or minus one inch. The weight of the blanket measured under average atmospheric conditions shall be 78 pounds per 80 sq. yards plus or minus ten percent. The net backing shall have a mesh size not exceeding 1 1/2 by 3 inches and may be woven from twisted paper, cotton cord, a biodegradable plastic or other approved material. The mat shall be U shaped, made of No. 11 gage or larger diameter steel wire, or other approved material, have a width of one to two inches, and a length of not less than six inches for firm soils and not less than 12 inches for loose soils.
- B. The erosion mat shall be placed on a specified area immediately after the seeding or sodding of the area. The mat shall be placed on a slope over 1 1/2 inches in diameter on the soil slopes or on soil that will be removed prior to placing the mat.
- C. Any small stones or dross which prevent contact of the mats with the soil shall be pressed in the mat so as to permit runoff water to flow over it. In the event methods and details for placing erosion mat are incorporated in the plans, the work shall conform thereto.
- D. Any seeded areas damaged or destroyed during erosion mat placing operations shall be reseeded as specified in the original contract documents and drawings.
- E. The erosion mat shall be placed on the seeded soil or seeded surfaces for placing grass or other vegetation until the contractor has determined that the mat is ready for removal. The mat shall be disposed of by the contractor.
- F. Following the placing of the mat, water shall be uniformly applied to the area sufficiently to maintain the seeded to a depth of two inches and in a manner to preclude washing or erosion. The contractor shall be responsible for any necessary remedial repairs of any areas damaged by erosion, traffic, fires or other causes until acceptance of work.
- G. The mat shall be spread evenly, smoothly in a natural position without stretching and with all parts bearing on the soil. Wood strips shall be placed on the mat in a direction of flow of water.
- H. Strip mat shall overlap at least 10 inches. All overlaps shall be made with the upgrade section on top. The upgrade end of each strip shall be buried at least six inches in a vertical slot cut in the soil and the soil pressed firmly against the embedded blanket. The mat shall be anchored in place with vertically driven staples, driven until their caps are flush with the soil. Staples shall be placed at three foot intervals along the length of the mat. Three foot centers through the center. Staples shall be at ten inch centers at end of junction spots.

**14. UTILITIES**

- A. Contractor shall notify all utilities that might have facilities in project area at least three working days in advance of starting construction. Have underground facilities located and flagged prior to beginning work.

**15. DEMOLITION**

- A. Remove pavements, utilities and other improvements within the property boundary limits shown on Drawings. Legally dispose of materials off site.
- B. Pipes designated to be abandoned in place shall be permanently plugged with non-shrink grout a minimum of 24" of each open end.

**16. CLEARING & GRUBBING**

- A. Remove trees, stumps, shrubs, brush, heavy growths of grass, weeds and other vegetation, improvements, rubbish and debris and obstructions that interfere with proposed construction; Remove items only as necessary for completion of work. Do not bury stumps on site.
- B. On all areas to be grubbed, the contractor shall remove any existing structures of 2" or larger and cut clusters of trees to a depth of at least 24" below subgrade elevation for pavements, structures, embankments and 6" below ground surface in other areas.

**17. TOPSOIL STRIPPING**

- A. Strip topsoil from project area to whatever depths are indicated. Prevent intermixing with underlying subsoil or other objectionable material. Remove heavy growths of grass from areas before stripping topsoil.

- B. Stockpile topsoil in storage piles in areas designated by Owner. Construct storage piles to freely drain surface water. Cover or sprinkle water on storage piles to prevent windblown dust. Temporarily seed stockpile if necessary to control erosion.

**18. CLASSIFICATION OF EXCAVATIONS**

- A. Excavation of materials encountered under this work will be unclassified, except for excavation of rock as defined below.
  - B. Rock is defined to include hard, solid rock in ledges, bedded deposits, boulders, buried concrete and other materials that are not easily broken by hand tools.
  - C. Materials that pass all characteristics of solid rock, isolated masses less than 1 cubic yard will not be considered as rock.
  - D. Firmly cemented sedimentary materials in the form of sill-stone, sandstone, shale, conglomerate, etc. that are classified as rock, unless they are broken and reworked by hand tools.
  - E. When material is encountered that may be classified as rock, notify Owner who will test degree of resistance and make a final determination.
  - F. Measurement of rock in pipe trenches will be the width of pipe plus a maximum of 18" and a maximum of 6" below pipe barrels.

**19. SITE GRADING**

- A. Grading: Grade site by cutting and filling to achieve lines and grades shown, less allowances for slabs, pavements and topsoil. Finish surface to be reasonably smooth and free from irregularities. Tolerances for grading shall be as follows:
  1. Final grade above established subgrade: Tolerance for areas to receive topsoil shall be 0.30 ft., above or below established subgrade.
  2. Final grade below established subgrade: Tolerance for areas to receive topsoil shall be 0.30 ft., above or below established subgrade.
- B. Unsuitable Materials: Excavate organic, frozen, wet, soft and loose soils (including previously placed uncompact fill soils); Boulders, remnants of previous construction and other unsuitable materials that are not suitable for use as subgrade.
  - C. Subgrade: Prior to filling, pre- or fill exposed subgrade to detect areas which must be undercut or improved by appropriate preparation and compaction techniques. Subgrade for foundations, slabs, pavements and fill shall be approved by Geotechnical Engineer.
  - D. Unsuitable bearing soils are removed from beneath proposed footings. Excavation shall extend to a depth of 12 inches below the bottom of the footing. The bottom of excavated soil shall be compacted to a minimum of 95% relative compaction. Fills used to construct a raised structure pad shall be similarly oversized.
  - E. Take steps to prevent excessive drying or wetting of exposed footings, slab and pavement subgrade soils.
  - F. Fills shall be clean granular material or low plasticity cohesive soil. Suitable on-site outlet material may be used for required fills. If necessary, Engineer will adjust grade of building pad outlet to balance site earthwork. Fill materials shall be approved by Geotechnical Engineer.
  - G. Provide 6 inches of granular fill immediately below concrete floor and exterior slabs. Granular fill below floor slabs shall be free-draining sand and gravel with 100% passing a 2" sieve and 90% passing a No. 10 sieve.
  - H. Place fill in pavement areas, detention pond dikes, under building foundations and slabs, within 10 ft. of building lines, and on outlet building pads in loose lifts not more than 9" thick, at a moisture content at or near optimum, and compact to at least 98% of maximum Standard Proctor density (ASTM D698). Place fill in landscape areas in loose lifts of 12" thick and compact to 90% relative compaction.
  - I. Place each layer of fill on a minimum 1(x):5(h) slope; Step and bench fills, if necessary.
  - J. Backfill: Place fill or backfill adjacent to structures in a manner to prevent damage and allow structures to assume loads gradually and uniformly at approximately same rate on all sides. Backfill for foundation walls for a lateral distance of at least 3 to 4 ft. or for a distance at least equal to width of base of footing, whichever is greater, shall be well-graded, free draining granular material.
  - K. Dewatering: Perform site grading in a manner to prevent surface water and ground water from flowing into work area. Promptly remove water from excavations using pumps, sumps and dewatering systems. Provide temporary drainage ditches and temporary drainage ditches. Provide and maintain temporary drainage ditches and other diversions. Do not use foundation or utility trench excavations as temporary drainage ditches. If underground springs or drain tile are encountered, notify Geotechnical Engineer before proceeding. When possible maintain existing drain tile or reroute into new storm sewer.

**20. TRENCHING FOR UTILITIES**

- A. Excavate trenches so that pipe can be laid safely and accurately to required line and grade and so that pipe is supported and protected from damage.
  - B. Pipe rests evenly along barrel and is not resting on bell.
  - C. In sand and gravel soils, bottom of trench may be shaped to fit bottom 1/3 of pipe. In silt and clay soils, bottom of trench shall be 4 inches below pipe barrel and 3 inches below bell. In rock, bottom of trench shall be 6 inches below pipe barrel. Under foundations and footings, bottom of trench shall be 6 inches below pipe barrel.
  - D. If rock is encountered during trenching, contact Owner before proceeding further with affected pipelines.
  - E. Provide tamped granular initial backfill material to a minimum depth of 1 ft. above pipe. Take special care in placing and tamping initial backfill material so alignment and grade of pipe is not disturbed and pipe is supported.
  - F. Backfill more than 1 ft. over pipe shall be granular backfill. Compact backfill in accordance with requirements or "Site Grading" article.
  - G. Dewater trenches as required to provide stable bedding for pipe. Dewatering will be incidental to trenching. If dewatering is required, it shall be done in accordance with the following: Obtain a permit from the Wisconsin Department of Natural Resources Private Water Supply Section, P.O. Box 7921, Madison, WI 53707.
  - H. Where trench bottom is unstable because of groundwater, Geotechnical Engineer may require extra granular bedding and granular initial backfill shall comply with Std. S&W Spec., Section 6.4.3.4.
  - I. Trenches dug in sandy or gravelly materials may use undisturbed earth for bedding provided the bedding is compacted to a minimum of 95% relative compaction. The bedding shall be compacted to a point supporting bottom 1/3 of pipe for rigid pipe & to springline (mid-height) for flexible pipe. Place & compact bedding so that it fills and supports pipe haunch area.

**TEC DESIGN**

YOUR SITE SPECIALIST  
TECHNICAL ENGINEERING CONCEPTS & DESIGN

SIZE: A4071 LANE  
FALL CLAREN, WISCONSIN  
TEL: 920-222-1111  
FAX: 920-222-8811  
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TECDESIGN, INC.

PROJ. NO.  
08205

SPECIFICATIONS

MENARDS IMPROVEMENT PLAN  
6401 CORPS AVENUE  
MONROE, WI 53716

DWG. NAME  
SPEC. 44

DATE  
07/08

12

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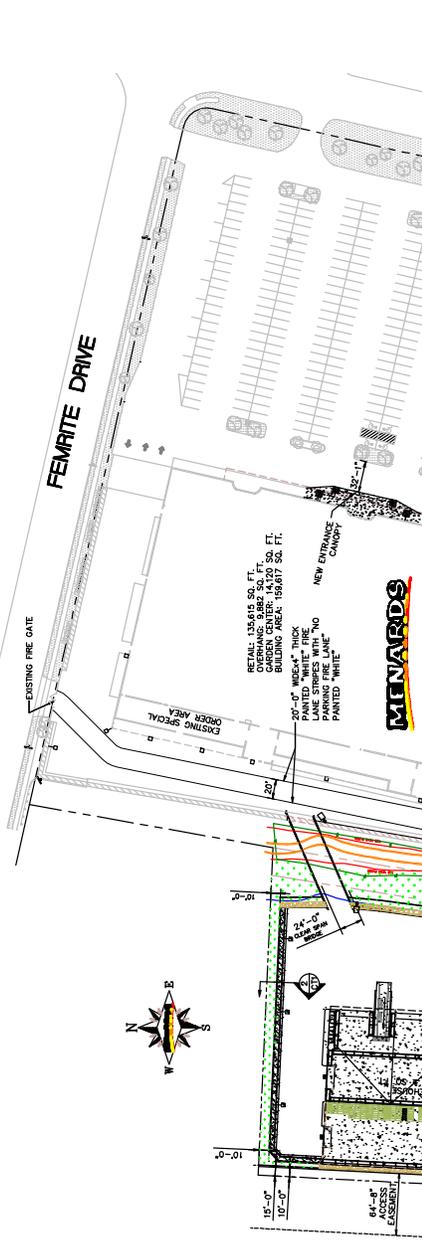
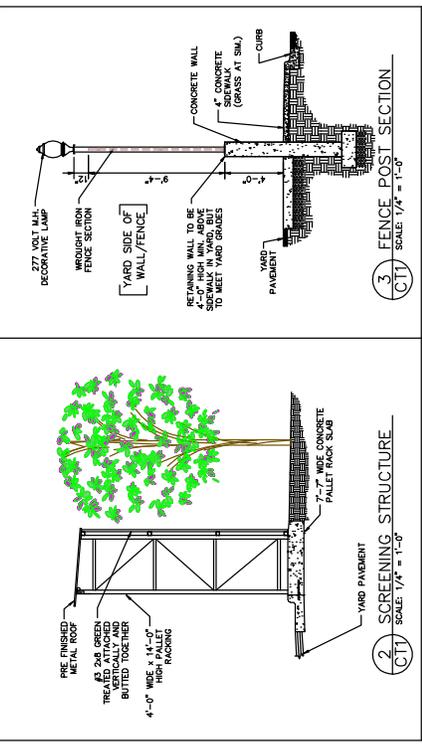
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**CAST IN PLACE CONCRETE SLAB**

- 1.0 GENERAL
- 1.01 Summary
- A. Provide cost in place concrete work, including finishing and curing, as shown and as specified.
- 1.02 Specifications
- 1.03 Testing
- A. Menards will pay for testing by a qualified testing agency, independent of Contractor.
- B. On site test shall be performed under observation of Owner's representative.
- C. Perform slump and air content tests prior to concrete placement. Failure to meet slump or air content criteria may result in rejection of load.
- D. Slabs shall be tested to determine compliance with specifications. Furnish test apparatus and cylinders tested by a qualified laboratory.
- E. On site test shall be performed under observation of Owner's representative.
- F. Supply standard cylinders. Cast 2 cylinders for compressive strength tests at 7 days and 28 days. Test procedures shall be in accordance with ASTM C31, C39, C143, C172 & C231. Cost of tests, including materials and transportation, shall be paid by Contractor and shall be considered incidental to the various items of concrete work.
- 1.04 Protection
- A. Protect concrete work from physical damage or reduced strength caused by frost, freezing actions or low temperatures in compliance with ACI 308 and when air temperature falls to or is expected to fall below 40 degrees F. Do not place concrete on frozen subgrade or on subgrade containing frozen materials. During seasons when atmospheric temperature may be expected to drop below 40 degrees F., concrete shall be protected by covering with ten impermeable paper & not less than 12" of loose dry hay or straw. Retain covering for ten days.
- B. When hot weather conditions exist that would seriously impair quality and strength of concrete, place concrete in compliance with ACI 305.

- 2.0 PRODUCTS
- 2.01 Cement
- A. Air entraining Portland cement, ASTM C150, Type IA or IIA.
- 2.02 Aggregates
- A. Fine & coarse aggregates, ASTM C33, consisting of clean, hard, durable sand and crushed rock, crushed gravel or gravel. Coarse aggregate shall meet grading requirements for size numbers 6, 10, 20, 40, 60, 100, 200, 400, 800, 1600, 3000, 6000, 12000, 25000, 50000, 100000, 200000, 400000, 800000, 1600000, 3200000, 6400000, 12800000, 25600000, 51200000, 102400000, 204800000, 409600000, 819200000, 1638400000, 3276800000, 6553600000, 13107200000, 26214400000, 52428800000, 104857600000, 209715200000, 419430400000, 838860800000, 1677721600000, 3355443200000, 6710886400000, 13421772800000, 26843545600000, 53687091200000, 107374182400000, 214748364800000, 429496729600000, 858993459200000, 1717986918400000, 3435973836800000, 6871947673600000, 13743895347200000, 27487790694400000, 54975581388800000, 109951162777600000, 219902325555200000, 439804651110400000, 879609302220800000, 1759218604441600000, 3518437208883200000, 7036874417766400000, 14073748835532800000, 28147497671065600000, 56294995342131200000, 112589990684262400000, 225179981368524800000, 450359962737049600000, 900719925474099200000, 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### LANDSCAPE LEGEND

SYMBOL	SCIENTIFIC, COMMON NAME	SIZE	QUANTITY	MATURE SIZE
(S1)	EXISTING CHAMBRAPLE TREES	EXISTING	5	15'-0" TO 25'-0" TALL
(S2)	EXISTING MAPLE TREES	EXISTING	7	15'-0" TO 25'-0" TALL
(S3)	EXISTING PINE TREES	EXISTING	6	15'-0" TO 25'-0" TALL
(S4)	EXISTING HEMLOCK TREES	EXISTING	6	30'-0" TO 70'-0" TALL
(S5)	EXISTING TREES (TYPE OF TREE VARIETIES)	EXISTING	2	30'-0" TO 70'-0" TALL
(S6)	RELOCATED CHAMBRAPLE TREES	REMOVED AND TRANSPLANTED	2	2'-8" TALL
(S7)	RELOCATED MAPLE TREES	REMOVED AND TRANSPLANTED	1	2'-8" TALL
(S8)	RELOCATED HEMLOCK TREES	REMOVED AND TRANSPLANTED	4	2'-8" TALL
(S9)	RELOCATED EXISTING TREES	REMOVED AND TRANSPLANTED	4	2'-8" TALL
(S10)	NEW CHAMBRAPLE TREES TO MATCH EXISTING	2 1/2" DIA.	12	15'-0" TO 25'-0" TALL
(S11)	NEW MAPLE TREES TO MATCH EXISTING	2 1/2" DIA.	14	15'-0" TO 25'-0" TALL
(S12)	EXISTING GRASS	NEW SOD		
(S13)	NEW BRAPP STONE			

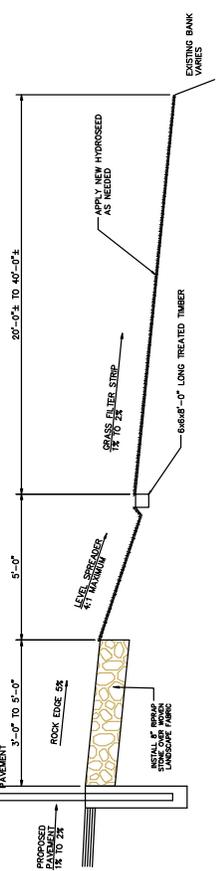
### LEGEND

(---)	CHAIN LINK FENCE
(---)	PROPERTY LINE
(---)	NEW SCREENING STRUCTURE
(---)	EXISTING SCREENING STRUCTURE
(---)	NEW CONCRETE
(---)	GAS METER
(---)	TRANSFORMER PAD

### ELECTRICAL LEGEND

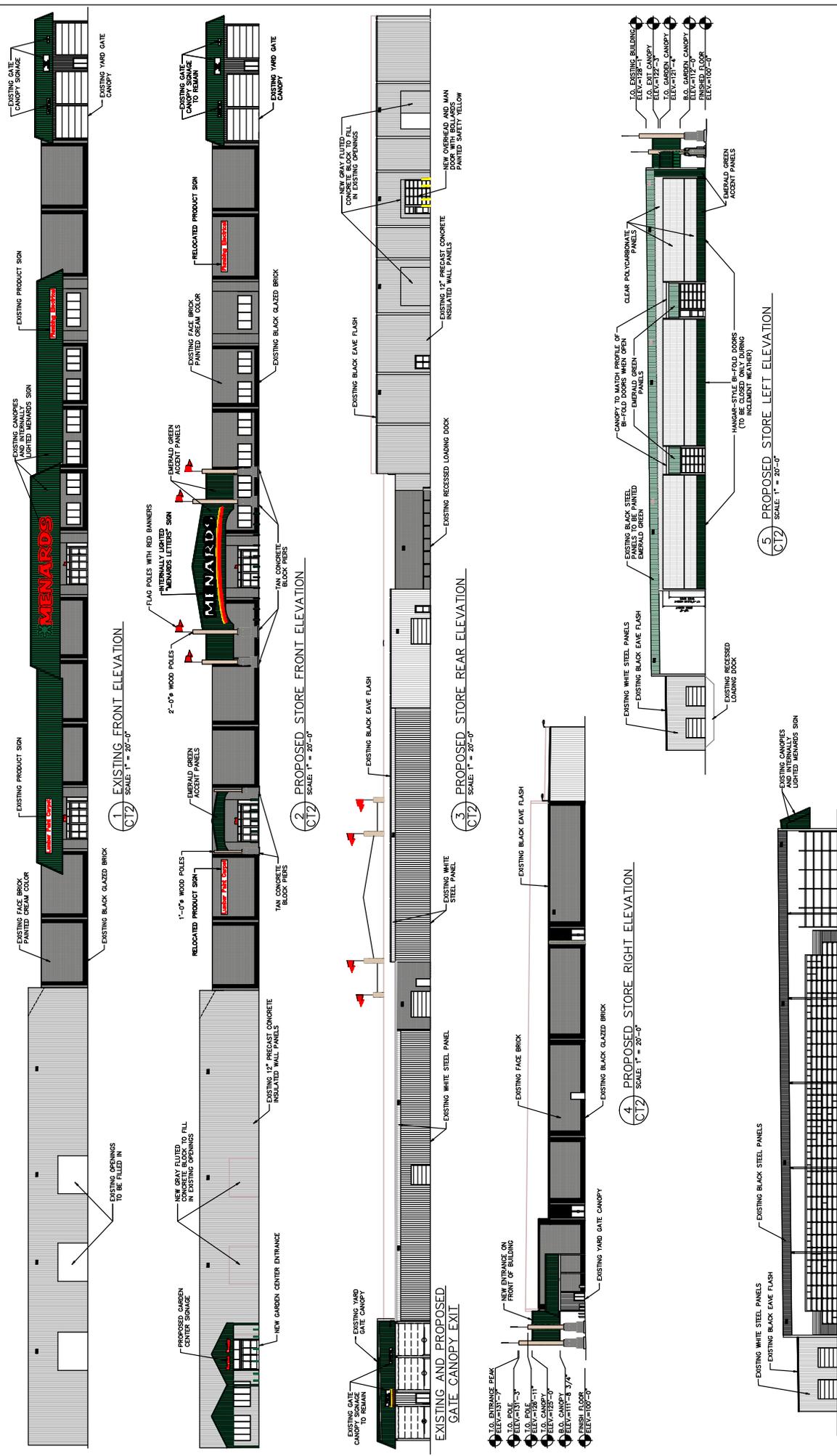
(S)	EXISTING (4) 1000W PARKING LOT LIGHTING TO
(X)	EXISTING 400W M.H. CUTOFF LUMINAIRES MOUNTED
(O)	EXISTING 400W M.H. CUTOFF LUMINAIRES TO BE
(R)	REMOVED AND SALVAGED FOR MINIARD'S, INC.
(S)	REMOVED AND RELOCATED FOR MINIARD'S, INC.
(S)	RELOCATED 400W M.H. CUTOFF LUMINAIRES
(S)	NEW 400W M.H. CUTOFF LUMINAIRE LIGHTING
(S)	MOUNTED ON NEW WAREHOUSE YARD
(S)	EXISTING 400W M.H. CUTOFF LUMINAIRE YARD LIGHTING
(S)	EXISTING 400W M.H. CUTOFF LUMINAIRE LIGHTING
(S)	RELOCATED 400W M.H. CUTOFF LUMINAIRE YARD
(S)	RELOCATED 400W M.H. CUTOFF LUMINAIRE YARD
(S)	NEW 400W 277V M.H. CUTOFF LUMINAIRE LIGHTING TO
(S)	BE USED TO LIGHT THE YARD ON 30'-0" TALL POLES
(S)	NEW (4) 1000W PARKING LOT LIGHTING ON 30'-0" TALL POLES TO MATCH EXISTING

1 PROPOSED LANDSCAPING AND SITE PLAN  
SCALE: 1" = 40'-0"



4 LEVEL SPREADER/GRASS FILTER STRIP DETAIL  
SCALE: 1/2" = 1'-0"

PROJECT TITLE: **MINIARD'S**  
 STORE DESIGN DEPARTMENT  
 2500 W. MONROE, WISCONSIN  
 DRAWN BY: [Name]  
 DATE: 10-23-08  
 SHEET NO.: [Blank]  
 PROJECT NO.: [Blank]  
 SHEET NAME: **PROPOSED LANDSCAPING AND SITE PLAN**  
 DRAWN BY: [Name]  
 DATE: 10-23-08  
 SHEET NO.: [Blank]  
 PROJECT NO.: [Blank]



<b>MEWARD</b> INC. (REGISTERED) STORE DESIGN DEPARTMENT EAU CLAIRE, WISCONSIN		PROJECT TITLE: <b>MONONA, WISCONSIN</b> SHEET TITLE: <b>BUILDING ELEVATIONS</b>
DRAWN BY: [Name] CHECKED BY: [Name]	DATE: [Date] PLAN: [Date]	SHEET NO.: [Number] MONONA-SHE: [Number]
REVISIONS: [Table with columns for NO., DATE, DESCRIPTION]	CAD FILE: [Name] DESCRIPTION: [Text]	SHEET NO.: [Number] MONONA-SHE: [Number]
		CTZ







