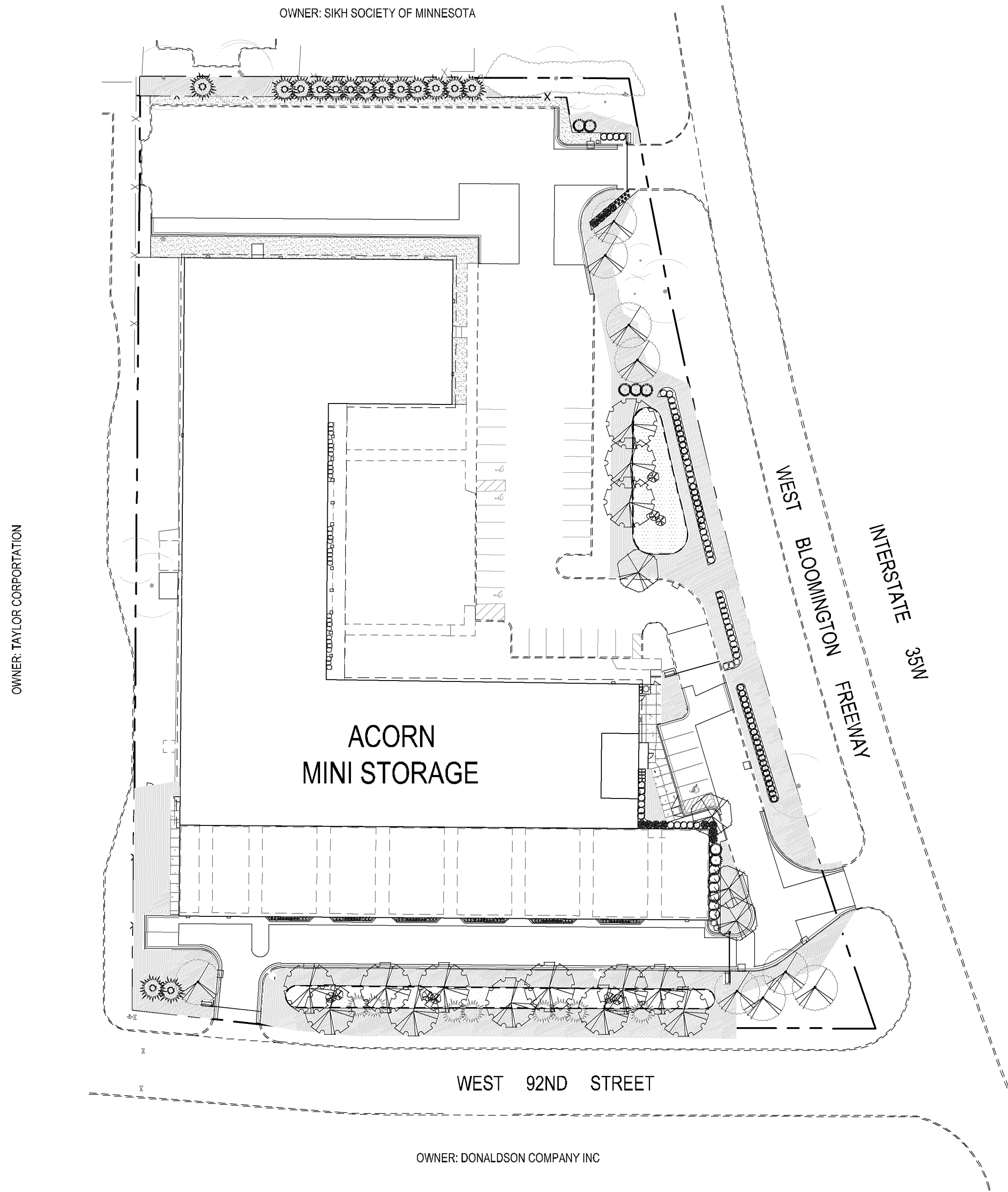




ACORN MINI STORAGE PHASE 1 BLOOMINGTON, MN

BID & PERMIT SET
MAY 3, 2018
(UPDATED JULY 19, 2018)

LOCATION MAP



PROJECT CONTACTS

OWNER	OAK MANAGEMENT & DEVELOPMENT COMPANY 3410 WINNETKA AVENUE N SUITE C NEW HOPE, MN 55427	CHRIS KIRWAN T (763) 231-2372
OWNER'S REPRESENTATIVE	CEANN COMPANY 10700 OLD COUNTY ROAD 15, PLYMOUTH, MN 55441	DAVID HUNT PE, LEED, AP T (952) 484-4451
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LANDSCAPE ARCHITECT	ELAN DESIGN LAB, INC. 901 N 3rd STREET SUITE 120 MINNEAPOLIS, MN 55401	PILAR SARATHONG, RLA T (612) 260-7980 F (612) 260-7980
LAND SURVEYOR	SUNDE LAND SURVEYING 9001 EAST BLOOMINGTON FREEWAY, SUITE 118 BLOOMINGTON, MN 55420	FEONARD CARLSON, LS T (952) 881-2455
ECONOMIC DEVELOPMENT DEPARTMENT	CITY OF BLOOMINGTON 1500 WEST OLD SHAKOPEE ROAD BLOOMINGTON, MN 55431	NICK M. JOHNSON T (952) 563-8925 F (952) 563-8949
CITY ENGINEERING	CITY OF BLOOMINGTON 1500 WEST OLD SHAKOPEE ROAD BLOOMINGTON, MN 55431	JEN DESRUDE T (952) 563-4882 F (952) 563-8984

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ENGINEERING DIVISION
Approved By: Julie Long, PE
09/13/2018 7:22:22 AM

OWNER

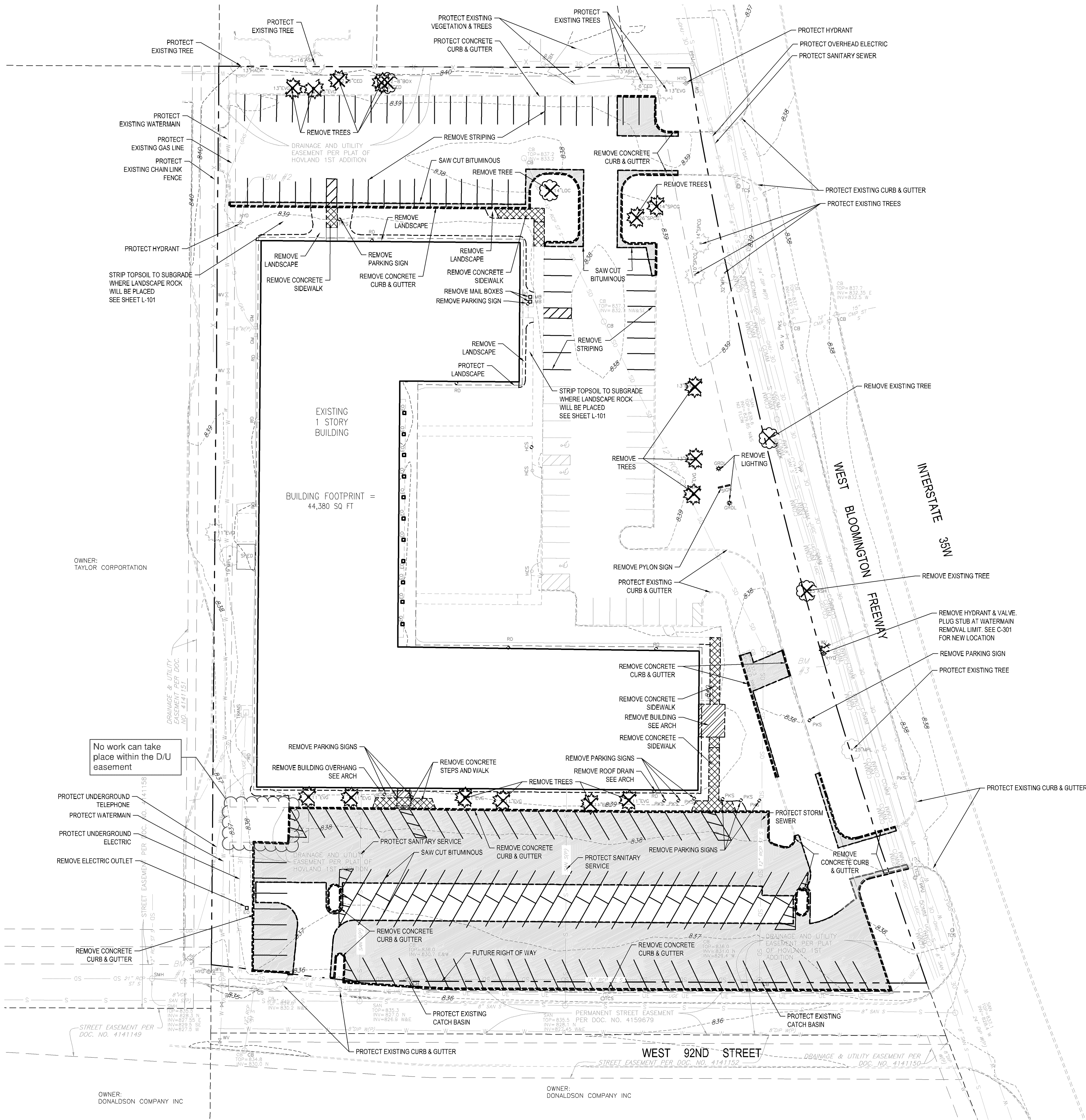
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PROJECT NO.
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DEMOLITION NOTES

- BACKGROUND INFORMATION AND TOPOGRAPHIC SURVEY TAKEN FROM SURVEY PERFORMED BY SUNDE LAND SURVEYING INC. MINNESOTA ON DECEMBER 14, 2017 EXPRESSLY FOR THIS PROJECT. ELAN DESIGN LAB CANNOT GUARANTEE THE ACCURACY OR COMPLETENESS OF THIS INFORMATION. VERIFY ALL FIELD CONDITIONS AND UTILITY LOCATIONS PRIOR TO EXCAVATION/CONSTRUCTION. IF ANY DISCREPANCIES OR UNKNOWN UTILITIES ARE FOUND THAT IMPACT DESIGN OR IMPAIR CONSTRUCTION, THE ENGINEER AND OWNER SHOULD BE IMMEDIATELY NOTIFIED.
- CONTRACTOR SHALL BRING ANY CHANGED OR UNFORESEEN CONDITIONS THAT COULD RESULT IN ADDITIONAL COST TO THE ATTENTION OF THE OWNER AND ENGINEER AS SOON AS THEY ARE DISCOVERED SO THAT THEY CAN BE PROPERLY DOCUMENTED. FAILURE TO NOTIFY OR COVERING UN-WITNESSED WORK SHALL RESULT IN REJECTION OF CLAIMS FOR ADDITIONAL COMPENSATION.
- PROTECT ALL STRUCTURES AND LANDSCAPE NOT LABELED FOR DEMOLITION FROM DAMAGE DURING CONSTRUCTION. ANY ON-SITE OR OFF-SITE AREAS DISTURBED DIRECTLY OR INDIRECTLY DUE TO CONSTRUCTION SHALL BE RETURNED TO A CONDITION EQUAL TO OR BETTER THAN THE EXISTING CONDITION. CONTRACTOR IS SOLELY RESPONSIBLE FOR ANY CIVIL PENALTIES RESULTING FROM THEIR WORK UNDER THIS CONTRACT.
- NO DEMOLITION MATERIALS SHALL BE DISPOSED OF ON-SITE. ALL DEBRIS SHALL BE HAULED OFF-SITE TO A DISPOSAL AREA APPROVED BY APPROPRIATE GOVERNMENTAL AUTHORITIES FOR THE HANDLING OF DEMOLITION DEBRIS. WORK SITE SHALL BE LEFT IN A CONDITION THAT MINIMIZES EROSION POTENTIAL ON A NIGHTLY BASIS.
- LIMIT CONSTRUCTION ACTIVITIES TO THE CONSTRUCTION LIMITS SHOWN ON THE PLAN. IF WORK NEEDS TO EXTEND TO PUBLIC STREETS OR RIGHT OF WAY IT IS THE CONTRACTOR'S RESPONSIBILITY TO APPLY FOR ALL PERMITS, PREPARE ALL DRAWING AND PAY ALL FEES AND COST. ALL CONSTRUCTION ACTIVITIES SHALL COMPLY WITH LOCAL ORDINANCES.
- CONSTRUCTION ENTRANCE AND FIBER LOGS SHALL BE IN PLACE PRIOR TO COMMENCEMENT OF DEMOLITION OPERATIONS. SEE SHEET C-201 FOR ALL EROSION CONTROL MEASURES AND APPROPRIATE STAGING AND SEQUENCING.
- PROVIDE NECESSARY BARRICADES, SUFFICIENT LIGHTS, SIGNS AND OTHER TRAFFIC CONTROL METHODS AS MAY BE NECESSARY FOR THE PROTECTION AND SAFETY OF THE PUBLIC AND MAINTAIN THROUGHOUT THE LIFE OF THE PROJECT.
- EXISTING MATERIALS SHALL BE REMOVED FROM THE SITE IN ACCORDANCE WITH ALL LOCAL, COUNTY, STATE AND FEDERAL REQUIREMENTS. ABATEMENT OF ANY MATERIALS DETERMINED BY THE ENVIRONMENTAL ENGINEER TO BE HAZARDOUS SHALL BE REMOVED IN ACCORDANCE WITH APPROPRIATE REQUIREMENTS.
- EXISTING PAVING AND BASE MATERIAL THAT CONFLICTS WITH PROPOSED PAVING, GRADING, STRUCTURES, ETC. MAY BE REMOVED PROVIDED SUBGRADE REMAINS UNDISTURBED. DISTURBING THE SUBGRADE ON PAVEMENTS INDICATED TO REMAIN VIOLATES WATERSHED APPROVALS.
- REMOVE ALL EXISTING SURFACE SITE FEATURES INCLUDING, BUT NOT LIMITED TO, FENCING, RETAINING WALLS, SCREEN WALLS, CONCRETE APRONS, SITE LIGHTING AND RELATED FOUNDATIONS, SITE SPECIFIC SIGNAGE AND RELATED FOUNDATIONS, BOLLARDS, AND LANDSCAPING WITHIN THE CONSTRUCTION LIMITS UNLESS NOTED OTHERWISE.
- COORDINATE WITH ALL PRIVATE UTILITY OWNERS FOR THE RE-USE OF EXISTING ELECTRIC, TELEPHONE, CATV, ETC. SERVICES TO THE SITE.
- RELOCATION OF UTILITIES SHALL BE COORDINATED WITH THE LOCAL UTILITY COMPANIES. ELECTRIC HANDHOLES, PULLBOXES, POWERPOLES, GUYLINES, AND STRUCTURES DISTURBED BY CONSTRUCTION ACTIVITIES TO BE RESTORED IN ACCORDANCE WITH SPECIFIC OWNER REQUIREMENTS AT CONTRACTORS EXPENSE.
- ALL CONSTRUCTION AND POST-CONSTRUCTION PARKING AND STORAGE OF EQUIPMENT AND MATERIALS MUST BE ON-SITE. USE PUBLIC STREETS FOR PRIVATE CONSTRUCTION PARKING, LOADING/UNLOADING, AND STORAGE WILL NOT BE ALLOWED.

LEGEND

- REMOVE BITUMINOUS
- SAW CUT BITUMINOUS
- REMOVE CONCRETE
- REMOVE BUILDING SEE ARCH
- REMOVE CURB & GUTTER
- REMOVE TREE

OWNER

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PROJECT

ACORN MINI
STORAGE - PHASE I
BLOOMINGTON, MN

ISSUE

BID & PERMIT SET
05/02/2018

REVISION	DATE
PERMIT REVIEW COMMENTS	07/19/2018

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CERTIFICATION

I hereby certify that this plan 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.

Stephen M. Johnston
REGISTRATION NO. 18914
DATE
05/03/18

SHEET

C010ARC08.DWG

DEMOLITION PLAN

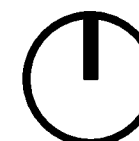
C-010

PROJECT NO.

ARC17008

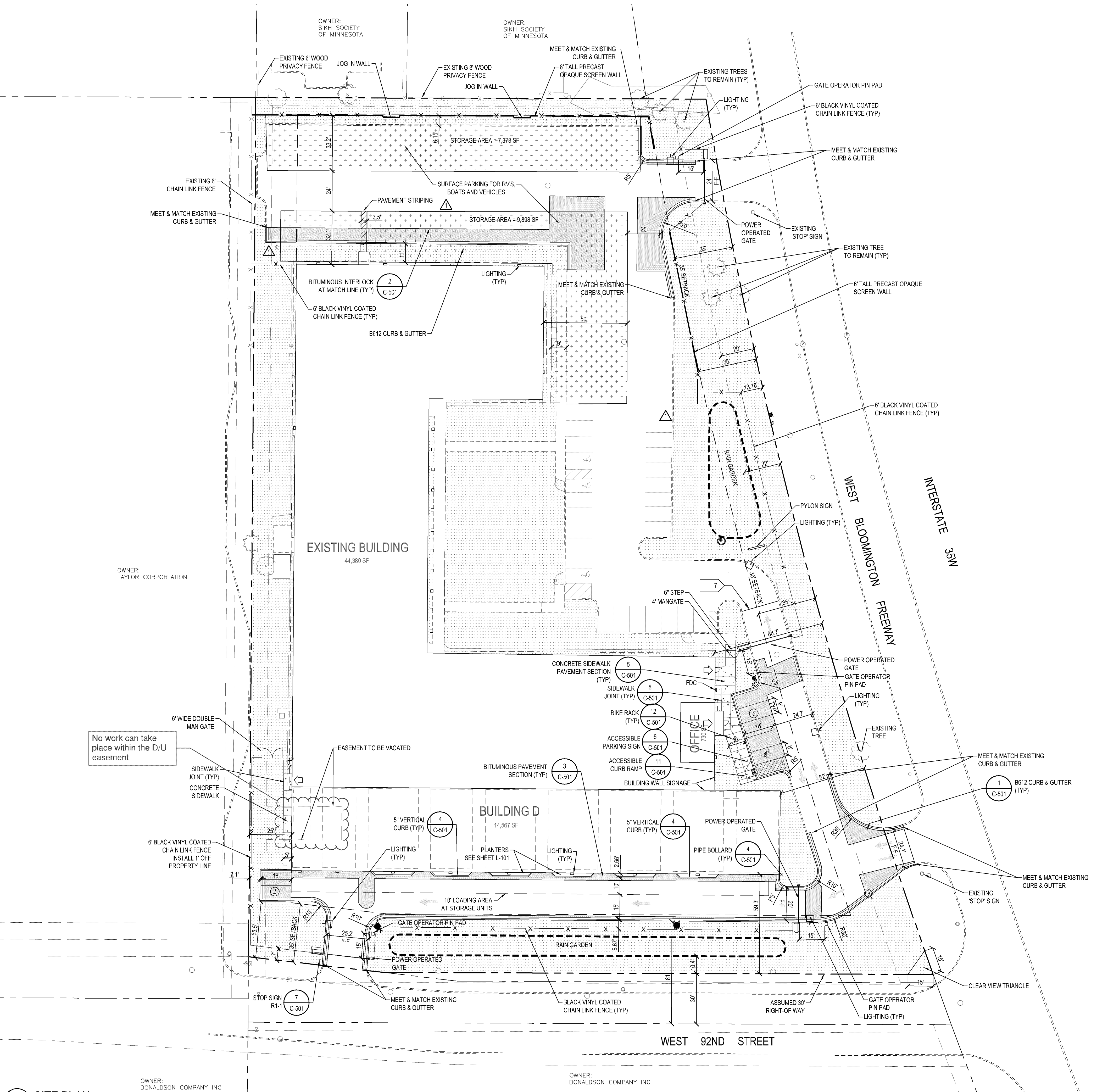


Know what's below.
Call before you dig.



30 90
SCALE IN FEET

1 DEMOLITION PLAN
1" = 30'



SITE PLAN NOTES

- DIMENSIONS SHOWN ON THIS PLAN ARE TO FACE OF CURB AND EXTERIOR FACE OF BUILDING UNLESS NOTED OTHERWISE.
- MEET AND MATCH EXISTING CONDITIONS. PROVIDE PROPER TRANSITION AS NECESSARY.
- ON-SITE CURBS TO BE B612 CONCRETE CURB & GUTTER.
- ALL CURBS TO HAVE 3/4" EXPANSION JOINTS AT A MAXIMUM OF 100'-0" AND CONTROL JOINTS AT A MAXIMUM OF 10'-0".
- ALL PARKING STALLS TO BE PAINTED WITH A 4" WIDE WHITE STRIPING. ACCESSIBLE SYMBOLS TO BE PAINTED IN WHITE AND ACCESSIBILITY ACCESS AISLES TO BE PAINTED WITH A 4" WIDE WHITE PAINTED STRIPE 18 INCHES ON CENTER AND AT 45 DEGREE ANGLE TO STALL, WITH NO PARKING MARKED NEAR THE DRIVE AISLE. REFLECTORIZED PAINT SHALL COMPLY WITH MNDOT 3592.
- OPAQUE PRECAST SCREEN WALL TO MATCH BUILDING AND SHALL BE BROKEN WITH A 10' LONG AND 1" DEEP OFFSET NO MORE THAN 100' ON CENTER, AS REQUIRED BY CITY CODE. THE WALL SHALL PROVIDE A MEANS TO ALLOW STORM RUNOFF DRAINING AT THE WALL TO PASS THROUGH.
- ALL EXISTING PAVEMENT TO REMAIN SOUTH OF THIS LINE, INCLUDING THE ENTRANCE DRIVE TO WHERE IT MEETS THE EXISTING ROADWAY, MUST REMAIN UNDISTURBED AS A CONDITION OF THE WATERSHED PERMIT. THE CONTRACTOR SHALL EITHER A) MILL AND OVERLAY THE EXISTING PAVEMENT WITH A MINIMUM 1-1/2" LIFT (3" MAXIMUM) OR B) REMOVE THE BITUMINOUS SURFACE, WHILE KEEPING THE AGGREGATE BASE AND SUBGRADE INTACT. ADD AGGREGATE BASE AS NEEDED TO PAVE WITH STANDARD PAVEMENT SECTION.
- PHASE 2 INCLUDES TWO BUILDING ADDITIONS TOTALING 17,840 S.F. AND REGRADING AND REPAVING OF THE ASPHALT EAST OF THE EXISTING BUILDING. THE EAST INFILTRATION BASIN ACCOUNTS FOR THE NEW AND DISTURBED IMPERVIOUS SURFACE ADDED IN PHASE 2.

PROJECT SUMMARY

AREA SUMMARY

EXISTING SITE AREA	184,846 SF. (4.24 AC.)
92ND RIGHT-OF-WAY	12,785 SF. (0.29 AC.)
SITE AREA	172,061 SF. (3.95 AC.)

LAND USE	EXISTING AREA	PROPOSED AREA
BUILDING	44,380 SF (26%)	44,380 SF (26%)
BUILDING ADDITION		14,567 SF (9%)
PAVEMENT (WALK/ DRIVE/ PARKING) DISTURBED AND NEW	73,622 SF (43%)	53,898 SF (31%)
EXISTING		10,072 SF
		43,827 SF
TOTAL IMPERVIOUS	118,002 SF (69%)	112,846 SF (66%)
PERVIOUS	54,059 SF (31%)	59,215 SF (34%)

BUILDING SF SUMMARY

EXISTING:	44,380 SF
BUILDING D:	14,567 SF (10,810 SF. LEASABLE)
TOTAL:	58,947 SF

STORAGE FOR RV'S BOATS & VEHICLES

REQUIRED AREA = USABLE LAND AREA (172,061 SF) x 10% = 17,206 SF
AREA PROVIDED = 17,276 SF

PARKING SUMMARY

REQUIRED:
313 UNITS * 1 STALL PER 50 UNITS = 6
313 UNITS * 1 STALL PER 100 UNITS = 3
733 sf OFFICE * 1 STALL PER 285 sf = 3
TOTAL = 12 STALLS

PROVIDED:
28 STALLS + 4 ACCESSIBLE STALLS
10' WIDE LOADING AREA IN FRONT OF STORAGE UNITS

PROVIDED BICYCLE 2 SPACES

LEGEND

	CONCRETE SIDEWALK
	NEW BITUMINOUS PAVEMENT
	PERVIOUS AREA
	STORAGE AREA FOR RV'S, BOATS AND VEHICLES

ENGINEERING DIVISION
Approved By: Julie Long, PE
09/13/2018 7:22:40 AM

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PERMIT REVIEW COMMENTS 2	08/14/2018
PERMIT REVIEW COMMENTS 3	08/21/2018

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CERTIFICATION

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Stephen M. Johnston
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DATE 05/03/18
SHEET C101ARC08.DWG

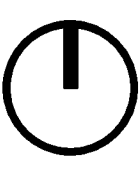
SITE PLAN

C-101

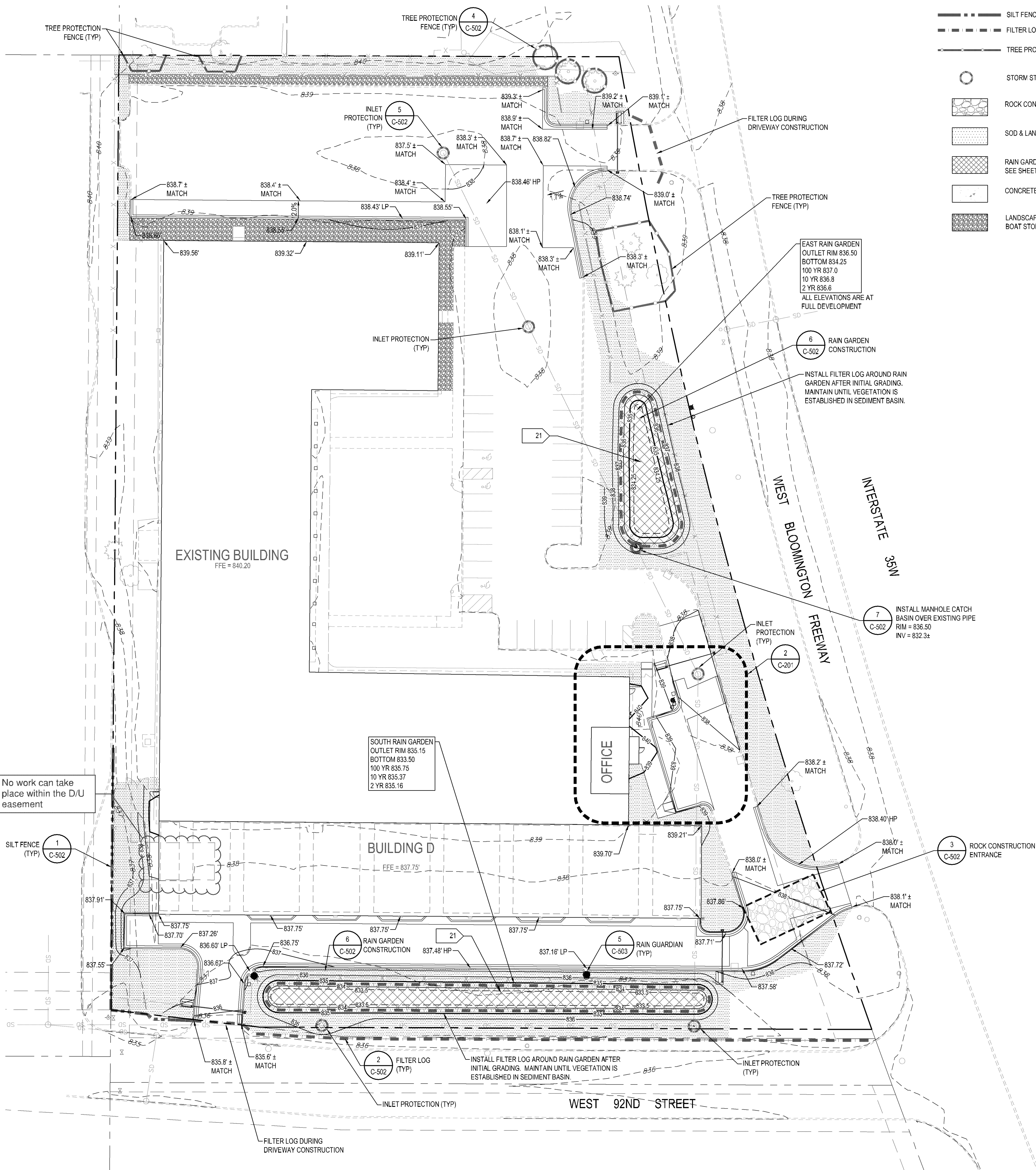
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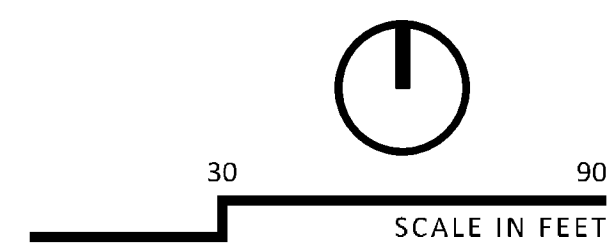


30 90
SCALE IN FEET



1 GRADING & EROSION CONTROL PLAN
1" = 30'

2 ENLARGED GRADING PLAN
1" = 10'



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DATE 05/03/18
SHEET C201ARC08.DWG

GRADING & EROSION
CONTROL PLAN

C-201

PROJECT NO.
ARC17008

Project Name / Location

Project Name	Acorn Mini Storage
Project Address	9100 W Bloomington Freeway, Bloomington MN 55431
Property ID	0902724310059
Latitude / Longitude	44.83833, -93.29900
Project Type	Commercial Site Redevelopment

Contacts

Owner	Contractor (Operator)	Preparer
Chris Kirwan	Adam Beesch	Steve Johnston, PE
Oak Management Company	B2 Builders, LLC	Élan Design Lab, Inc.
3410 Winnetka Avenue North	2218 West 89 th Street	901 N 3 rd St.
Suite C		Suite 120
New Hope, MN 55427	Bloomington, MN 55431	Minneapolis, MN 55401
763-231-2372	612-505-6925	612-260-7982
chris.kirwan@oakmanagement.com	adam@b2builders.com	sjohnston@elanlab.com
		SWPPP Design Certification Expires 2020

General SWPPP Responsibilities

The Contractor (Operator) shall provide a knowledgeable and experienced person(s) to oversee the implementation of the SWPPP and the installation. Inspection and maintenance of the erosion and sediment control BMP's before and during construction. Training must be in conformance with the NPDES Construction Permit requirements. Training documentation must kept on-site with the SWPPP and the trained person must be available on-site within 72 hours.

Both the Owner and Contractor (Operator) shall be responsible for the proper termination and/or transfer of the permit.

The owner will be responsible for the long term operation and maintenance of the permanent storm water management system(s).

Unless specifically stated the engineer shall have no responsibility for any SWPPP activities during or after construction.

Project Description

The proposed redevelopment project converts an existing single story flex office building and associated surface parking lot into a combination cold and climate controlled storage facility through the expansion of the existing building and conversion of existing parking and landscaped areas. The project will disturb a total of 2.20 acres and increase impervious surfaces by 0.26 acres.

Soils

The existing soil, based on the USDA/NRCS mapping is a Malardi complex a sandy loam that transitions to gravelly sand at depth. Soil borings will be necessary to confirm this generalized information.

Receiving Waters

The site is within the Nine Mile Creek Watershed. The site drains to Nine Mile Creek, 1.25 miles to the south, near James Ave. S. near W 102nd Street.

Project Plans

The following plan sheets are hereby incorporated into this SWPPP

Sheet Number	Description	Date
C2.1	Grading Plan & Erosion Control Plan	5/03/2018
C2.2	SWPPP Narrative	5/03/2018
C5.2	Details	5/02/2018

Stormwater Related Reviews and Permits

Agency	Type of Permit or Review	Status
City of Bloomington	Conditional Use Permit, Building Permit	Approved
Nine Mile Creek Watershed District	Stormwater Management and Erosion and Sediment Control	Pending
MPCA	Construction Stormwater	To be acquired by contractor.

Stormwater Management System Overview

See Stormwater Management Plan incorporated herein by reference for details on system design, flow rates and volumes and system capacities. In general the conveyance system consists of a series of catch basins, pipes, and rain gardens that convey runoff to the southwest corner of the site.

See Operations and Maintenance Manual for post construction system maintenance requirements.

Erosion Prevention Measures - General

The Contractor (Operator) is responsible for all erosion prevention measures for the project including but are not limited to the following:

- The Contractor (Operator) shall plan and implement appropriate construction practice and construction phasing to minimize erosion and retain vegetation whenever possible
- All areas not to be disturbed shall be delineated with flags, stakes, signs, or other means necessary to protect these areas before construction begins on the site.
- All drainage ditches and/or swales shall have temporary or permanent stabilization within 24 hours of connecting to a surface water or 24 hours after construction activity in the ditch/swale has temporarily or permanently ceased.
- All pipe outlets shall have temporary or permanent energy dissipation within 24 hours of connecting to a surface water.
- All exposed soils shall be stabilized as soon as possible to limit soil erosion. In no case shall un-worked areas, including stock piles, have exposed soils for more than 14 days without providing temporary or permanent stabilization. (7 days for projects with a receiving water that is impaired or special)

Sediment Control Measures and Timing - General

The Operator (Contractor) is responsible for all sediment control measures for the project. Sediment control measures include but are not limited to the following:

- Sediment control measures shall be established on all down gradient perimeters before any up-gradient land disturbing activities begin. These measures shall remain in place until final stabilization has been established.
- On slopes with 3:1 or steeper grades there shall be no unbroken slope length greater than 75 feet.
- All storm drain inlets and culvert inlets shall be protected by an appropriate BMP during construction until all sources with potential for discharging to the inlet has been stabilized. Inlet and culvert protection shall conform to the MnDOT Specifications 2573 and 3891.
- Stock piles shall be provided with an effective sediment perimeter control and shall not be placed in any type of surface water or drainageway.
- Vehicle tracking shall be minimized with effective BMP's. Where the BMP's fail to prevent sediment from tracking onto streets the Contractor shall conduct street sweeping to remove all tracked sediment.
- The Operator is responsible for identifying the need for temporary sediment basins based on actual field conditions to protect downstream resources. Temporary sediment basins shall be constructed before up gradient vegetation is disturbed and maintained until the risk of damage to downstream resources is mitigated by other means.

Dewatering and Basin Draining Activities - General

The Operator is responsible for adhering to all dewatering and surface drainage regulations, including but not limited to the following:

- Whenever possible water from dewatering activities shall discharge to a temporary and/or permanent sediment basin.
- If water cannot be discharged to a sedimentation basin, it shall be treated with other appropriate BMP's, to effectively remove sediment.
- All discharge points shall be protected from erosion and scour.
- Discharge water shall be dispersed over an effective energy dissipation measure.
- All water from dewatering shall be discharged in a manner that does not cause nuisance conditions, erosion, or inundation of wetlands. Water shall not be discharged to adjacent residential properties. It must be discharged to the public street.

Final Stabilization - General

The Operator is responsible for ensuring final stabilization of the site, including but is not limited to the following:

- All soil disturbing activities outside of the right-of-way have been completed.
- All exposed soils have been uniformly stabilized.
- All drainage ditches, ponds and all storm water conveyance systems have been cleared of sediment and stabilized to preclude erosion.

Upon approval of the work by Owner, Watershed and City, the responsibility for the site may be transferred to the City's contractor and builders. The original contractor will remain responsible for establishment of at least 80% perennial vegetation coverage and the removal of temporary BMP's.

Temporary Sediment Basin

During construction the contractor shall excavate and maintain temporary sediment basins as needed to prevent sediment from reaching permanent filtration areas, wetlands and other environmentally sensitive areas.

Construction Sequencing

Contractor shall comply with the following sequence. The Contractor may make adjustments to the sequence if needed to address their means and methods and unanticipated field conditions.

- Install inlet protection in downstream structures.
- Install perimeter silt fence and other barriers at a minimum as indicated on the plan. The contractor is responsible for any additional sediment control that is needed to prevent sediment from leaving the site.
- Install rock construction entrance.
- Remove pavement needed for building construction. Leave the balance of pavement intact until completion of building.
- Protect rain garden areas from construction traffic.
- Construct building addition.
- Remove the balance of pavement as shown on plans.
- Install curb and gutter and new pavement.
- Provide temporary swales to divert runoff away from rain garden until permanent perennial vegetation is established in basins.

- Construct rain garden. Provide perimeter control around basins.
- Complete landscaping
- Remove sediment barriers as building construction and permanent landscaping is completed.
- Flush storm sewer system. Remove sediment from rain garden as needed.
- Monitor vegetation and reinstall as needed until fully established.
- File NPDES Notice of Termination ("NOT") with MPCA within 30 days of final stabilization.

Inspection and maintenance

All inspections, maintenance, repairs, replacements and removal are to be considered incidental to the BMP bid items.

The Contractor (Operator) is responsible for completing required inspections maintenance and observation of weather conditions and rainfall amounts to ensure compliance with the permit requirements. The Contractor (Operator) shall observe the construction site once every seven (7) days during active construction and within 24 hours after a rainfall event greater than 0.5 inches in 24 hours.

The Contractor (Operator) shall keep a summary maintenance/construction observation report to be recorded after each site visit/observation. The Contractor (Operator) shall submit a copy of the written inspections monthly to the Owner. Records shall include the following:

- Date and time of inspections
- Name of person conducting inspection
- Findings and recommendations for corrective actions if necessary
- Corrective actions taken
- Date and amount of rainfalls greater than 0.5 inches in 24 hours
- Mention of any changes made to the SWPPP
- A site map indicating active construction areas and land disturbing activities.

The Contractor (Operator) must keep the SWPPP, all inspection reports and amendments onsite. The Contractor (Operator) shall designate a specific location to keep the records whenever construction activity is in progress.

All erosion prevention and sedimentation control BMP's must be inspected to ensure integrity and effectiveness. All nonfunctional BMP's must be repaired, replaced or supplemented with functional BMP's. The Contractor (Operator) must investigate and comply with the following inspection and maintenance requirements:

- All sediment barriers including silt fence, bio-logs, and similar devices must be repaired replaced or supplemented when they become nonfunctional or the sediment reaches 1/3 of the barrier height. These repairs shall be made within 24 hours of discovery.
- Temporary and permanent sediment basins must be drained and the sediment removed when the depth of sediment collected in the basin reaches 1/2 the storage volume. Drainage and removal must be completed within 72 hours of discovery.
- Surface waters, including drainage ditches and conveyance systems, must be inspected for evidence of erosion and sediment deposition. The Operator shall remove all deltas and sediment deposited in surface waters, including drainage ways, catch basins, and other drainage systems. The Operator shall re-stabilize the areas where sediment removal results in exposed soil. Removal and stabilization must take place within 7 days of discovery, unless precluded by legal, regulatory or physical constraints. The Contractor (Operator) is responsible for contacting all local, regional, state and federal authorities and receiving any applicable permits, prior to conducting any work.
- Construction site vehicle exit locations shall be inspected daily for evidence of off-site sediment tracking onto paved surfaces. Tracked sediment must be removed from all paved surfaces within 24 hours of discovery.
- The Contractor (Operator) is responsible for the operation and maintenance of temporary and permanent water quality BMP's. As well as erosion and sediment control BMP's for the duration of the construction work at the site.
- If sediment escapes the construction site, all off-site accumulations of sediment must be removed in a manner and at a frequency sufficient to minimize off-site impacts.
- All filtration areas must be inspected to ensure that no sediment from ongoing construction activities is reaching the filtration areas and these areas are protected from compaction due to construction equipment driving across the filtration area.
- The Contractor is solely responsible for all costs associated with reconstructing the rain garden when the functionality is compromised by the contractor's actions or inaction to protect the basin.

Pollution Prevention Management Measures

The Contractor (Operator) shall be responsible for all pollution prevention management measures. The Contractor (Operator) is responsible for informing all visitors and/or personnel on-site of the pollution prevention management measures.

All pollution prevention management measures are to be considered incidental to the overall project bid, unless otherwise noted. Pollution prevention management measures include but are not limited to the following:

- The Contractor (Operator) is responsible for the proper disposal, in compliance with MPCA disposal requirements, of all solid or liquid waste and hazardous materials on-site.
- Concrete trucks shall not be allowed to wash out or discharge surplus concrete or drum wash water on-site, unless done in an engineered leak-proof containment system. The engineered system provided by the Contractor (Operator) must include site drawings for the project file and written assurance that the system will work as designed and leave no discharge of concrete or concrete residue potential to waters of the state during a minimum of a 100-year storm event. A sign must be installed adjacent to each washout system to inform concrete equipment Operators to utilize the proper facilities. The concrete washout containment system and all related items shall be considered incidental to the project bid.
- All nonhazardous waste materials shall be collected and stored in a securely lidded metal dumpster or other approved containment method at the end of each day. Any alternative to a metal dumpster must be submitted in writing for approval by the project engineer. The dumpster shall be emptied as necessary to function as intended for debris collection. No construction garbage or waste material shall be buried on-site.
- A licensed sanitary waste management Contractor shall collect all sanitary waste from the portable units at a rate necessary to maintain designed function.

- All fertilizers shall be stored in a covered shelter. Partially used bags shall be transferred to a sealable bin to reduce the chance of spillage.
- External washing of trucks and other construction vehicles and engine degreasing are prohibited at the construction site. All vehicles on-site shall be monitored for leaks and receive regular prevention maintenance to reduce the chance of leakage. Petroleum products shall be stored in tightly sealed containers. Which are clearly labeled. Spill kits shall be included with all fueling sources and maintenance activities. Secondary containment measures shall be installed and maintained by the Operator.
- Any asphalt substances used on-site shall be applied in accordance with manufacturer's recommendations.
- All paint containers and curing compounds shall be tightly sealed and stored when not required for use. Excess paint and/or curing compounds shall not be discharged into the storm sewer system and shall be properly disposed of according to manufacturer's instruction.
- Materials and equipment necessary for spill clean-up shall be kept in an enclosed trailer or shed on-site. Equipment shall include. But not limited to, brooms, mops, dust pans, rags, gloves, goggles, absorbent (kitty litter) oil absorbent booms and diapers and buckets.
- All spills shall be contained and cleaned up immediately upon discovery. Spills large enough to reach the storm water conveyance system shall be reported to the Minnesota duty officer at 1-800-422-0798.

Quantities

Practice	Detail / Spec.	Unit	Quantity
Silt Fence	1/C-502	LF	185
Filter Log Sediment Control	2/C-502	LF	1,150
Tree Protection Fence	4/C-502	LF	340
Rock Construction Entrance	3/C-502	Each	1
Storm Structure Protection	5/C-502	Each	6
Sod & Landscaping	MnDot 3878	SY	3,810

Post Construction Operation and Maintenance

Maintenance of the storm water management facilities will be the responsibility of a Owner and will be subject to an agreement with the City of Bloomington and Nine Mile Creek Watershed District. The agreement will include the following items.

- Rain gardens shall be monitored for the first year after each rainfall of 0.5" or greater to verify rain garden is dry with 48 hours or less. Contact Engineer if infiltration is not occurring within the prescribed period.
- Sediment and trash accumulation shall be inspected on an annual basis and removed when facility is impacted. Owner is strongly encouraged to vacuum sweep entire site each spring before spring rains wash sediment.
- Debris must be disposed in a licensed landfill.
- Sediment shall be tested for contaminates and disposed of in a manner consistent with state and watershed regulations.
- Clean debris from storm sewer inlets on an as needed basis.
- Noxious weeds shall be removed from the site on an annual basis before they go to seed.

Amendments to the SWPPP

The SWPPP will be amended as needed and/or as required by provisions of the permit. Amendments will be approved by both the Owner and Contractor (Operator) and will be attached to the SWPPP as an additional sheet. The SWPPP and amendments will be kept on site by the Contractor (Operator) whenever construction activity is in progress.

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612-436-4030

PROJECT

ACORN MINI
STORAGE - PHASE I
BLOOMINGTON, MN

ISSUE

BID & PERMIT SET
05/02/2018

REVISION	DATE
PERMIT REVIEW COMMENTS	07/19/2018

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E-101	SITE PHOTOMETRICS

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CERTIFICATION

I hereby certify that this plan 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.

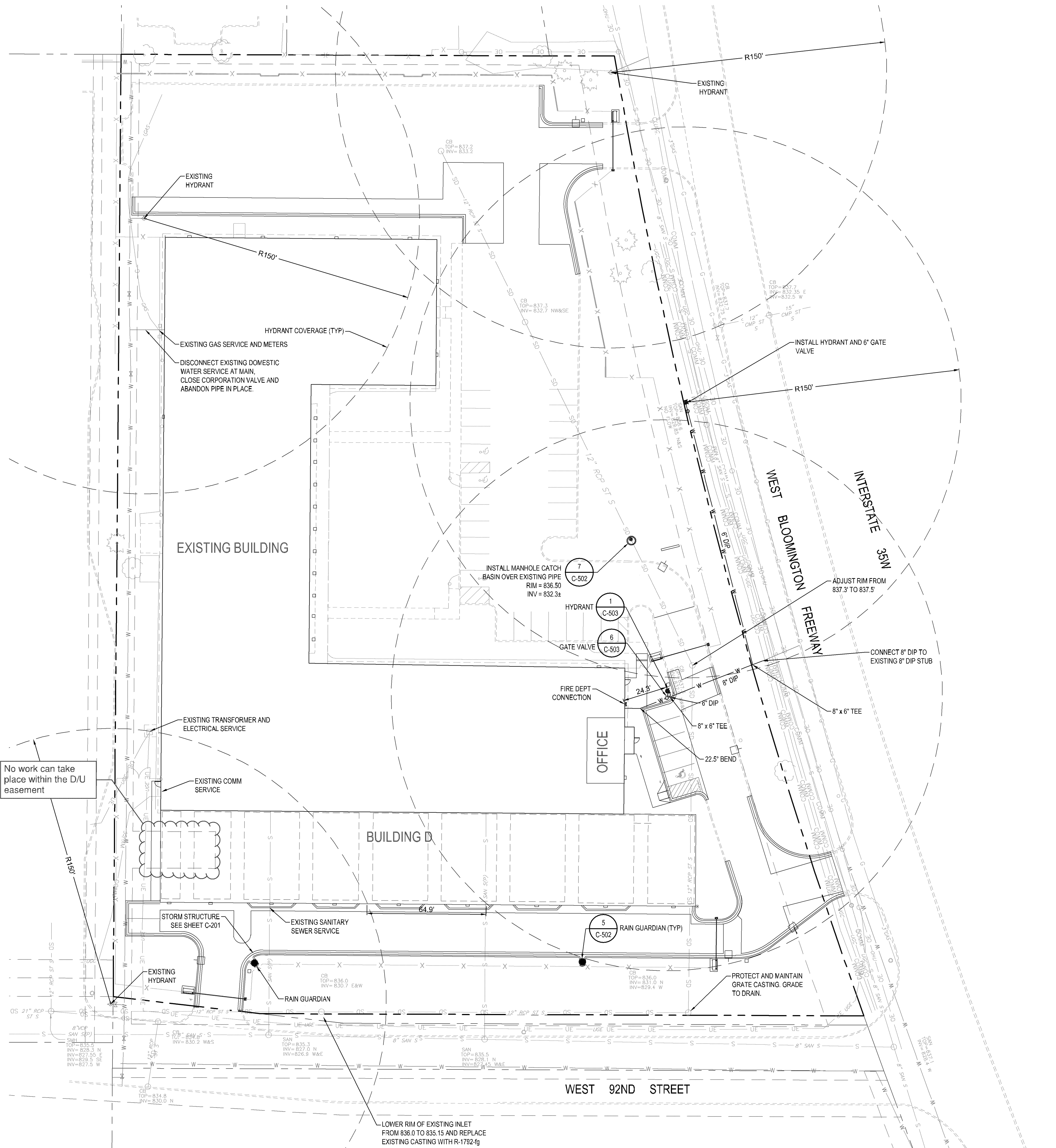
Stephen M. Johnston
Stephen M. Johnston DATE
REGISTRATION NO. 18914 05/03/18

SHEET C202ARC08.DWG

SWPPP

C-202

PROJECT NO.
ARC17008



1 UTILITY PLAN
1" = 30'

UTILITY NOTES

1. VERIFY ALL CONNECTIONS TO EXISTING UTILITY SERVICES PRIOR TO CONSTRUCTION. ANY DISCREPANCIES BETWEEN LOCATED UTILITIES AND THE EXISTING CONDITIONS PLAN SHOULD BE NOTED AND FORWARDED TO THE ENGINEER.
2. CONTRACTOR TO PROVIDE ADEQUATE MEANS AND METHODS TO ASSURE ADJACENT PROPERTY IS NOT DAMAGED DURING UTILITY INSTALLATION.
3. PIPE LENGTHS SHOWN ARE MEASURED FROM CENTER OF STRUCTURE TO CENTER OF STRUCTURE.
4. UTILITY SERVICE LOCATIONS WITHIN BUILDING ARE SHOWN CORRECT AS OF THE DATE OF THIS PLAN. THE CONTRACTOR SHALL VERIFY LOCATIONS BY COMPARING THIS PLAN WITH THE MECHANICAL PLANS PRIOR TO ANY UTILITY CONSTRUCTION.
5. PIPE MATERIALS: (TO BE VERIFIED)
WATERMAIN 6" & 8" DIP CLASS 52
6. ALL UTILITY CONSTRUCTION TO CONFORM WITH STATE, CITY ENGINEER'S ASSOCIATION OF MINNESOTA (CEAM), MINNESOTA PLUMBING CODE AND CITY OF BLOOMINGTON STANDARD SPECIFICATIONS.
7. ADJUST ALL STRUCTURES, PUBLIC AND PRIVATE, TO PROPOSED GRADES WHERE DISTURBED. COMPLY WITH ALL REQUIREMENTS OF UTILITY OWNERS. STRUCTURES BEING RESET TO PAVED AREAS TO MEET OWNERS REQUIREMENTS FOR TRAFFIC LOADING.
8. PROVIDE A MINIMUM 8" TO A MAXIMUM OF 18" OF COVER OVER ALL NEW WATERMAIN.
9. UTILITY AND MECHANICAL CONTRACTORS MUST COORDINATE THE INSTALLATION OF ALL WATER AND SEWER PIPES INTO THE BUILDING TO ACCOMMODATE CITY INSPECTION AND TESTING.
10. ALL COMPONENTS OF THE WATER SYSTEM, UP TO THE WATER METER OR FIRE SERVICE EQUIPMENT MUST UTILIZE PROTECTIVE INTERNAL COATINGS MEETING CURRENT ANSI/AWWA STANDARDS FOR CEMENT MORTAR LINING OR SPECIAL COATINGS. THE USE OF UNLINED OR UNCOATED PIPE IS NOT ALLOWED.
11. UTILITY PERMITS ARE REQUIRED FOR CONNECTIONS TO PUBLIC STORM, SANITARY, AND WATER SYSTEMS. CONTACT THE CITY OF BLOOMINGTON WATER DEPARTMENT (952-563-8777) FOR PERMIT INFORMATION.
12. CONTRACTOR SHALL OBTAIN A PUBLIC WORKS PERMIT FOR UNDERGROUND WORK WITHIN THE RIGHT-OF-WAY. PERMIT IS REQUIRED PRIOR TO REMOVALS OR INSTALLATION. CONTACT CITY OF BLOOMINGTON PUBLIC WORKS (952-563-4568) FOR PERMIT INFORMATION.
13. UTILITY AS-BUILTS MUST BE PROVIDED PRIOR TO ISSUANCE OF A CERTIFICATE OF OCCUPANCY.

OWNER

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05/03/18

SHEET C301ARC08.DWG

ENGINEERING DIVISION
Approved By: Julie Long, PE
09/13/2018 7:23:11 AM

811
Know what's below.
Call before you dig.

30 90
SCALE IN FEET

UTILITY PLAN
C-301
PROJECT NO.
ARC17008

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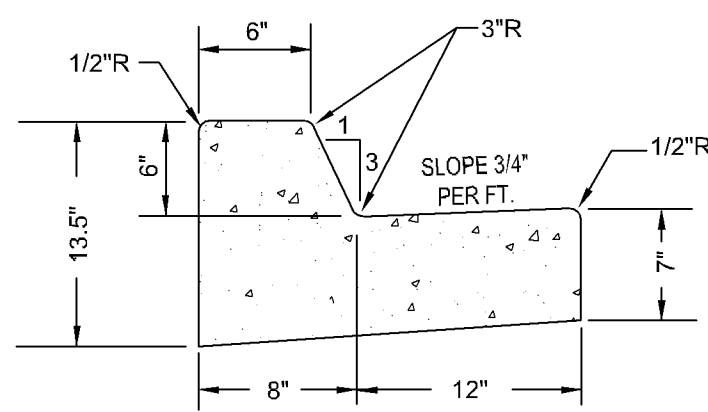
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DETAILS

C-501

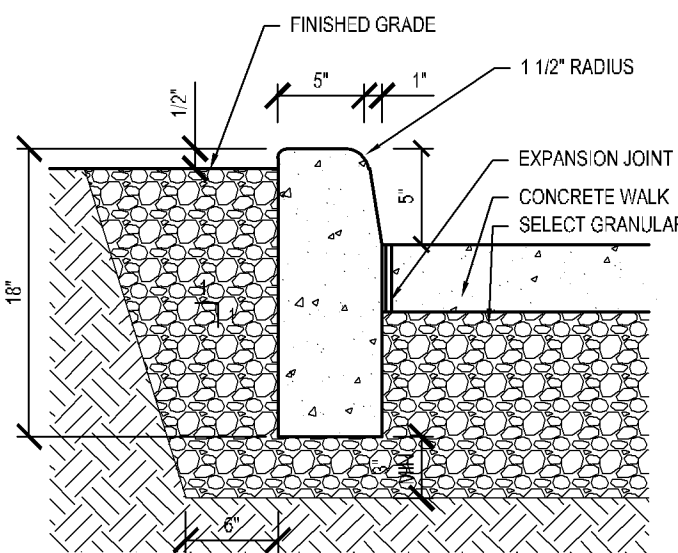
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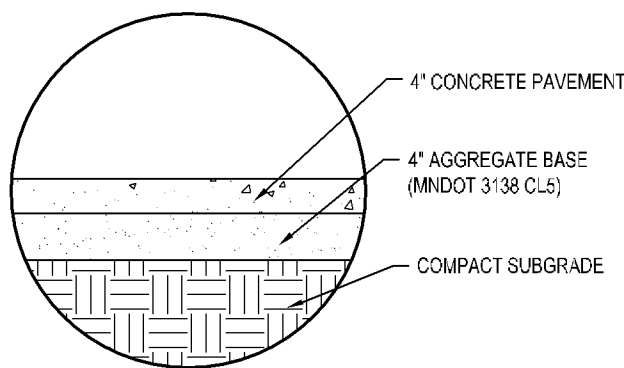
B612 CURB & GUTTER

NO SCALE



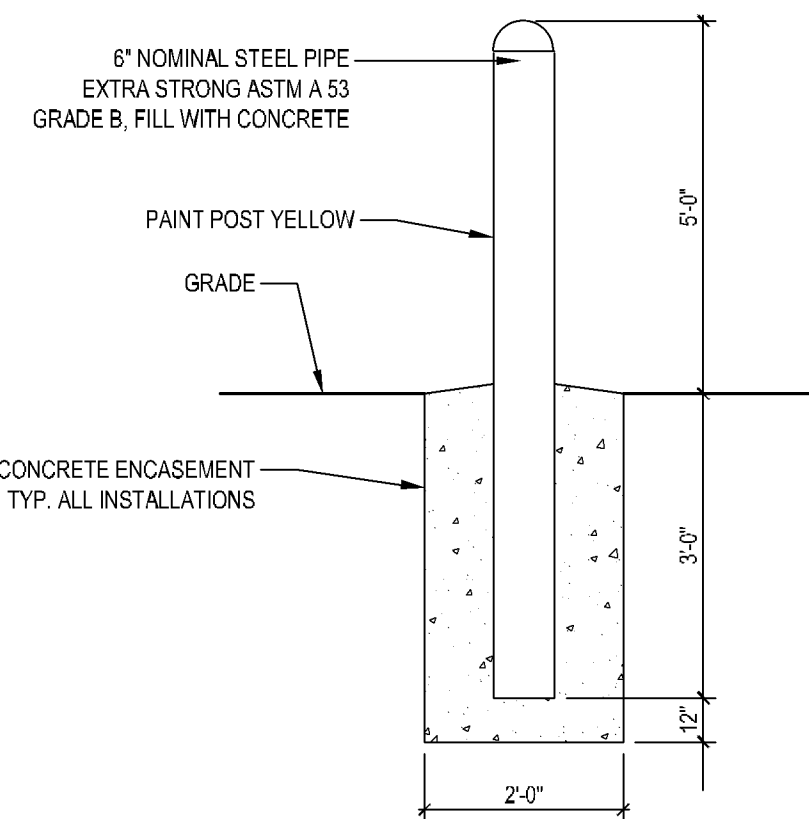
5" VERTICAL CURB

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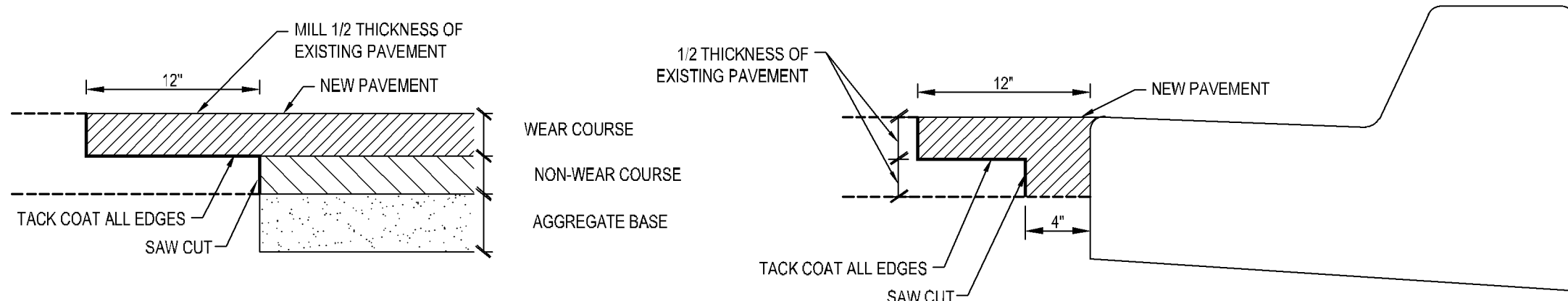
CONCRETE WALKWAY SECTION

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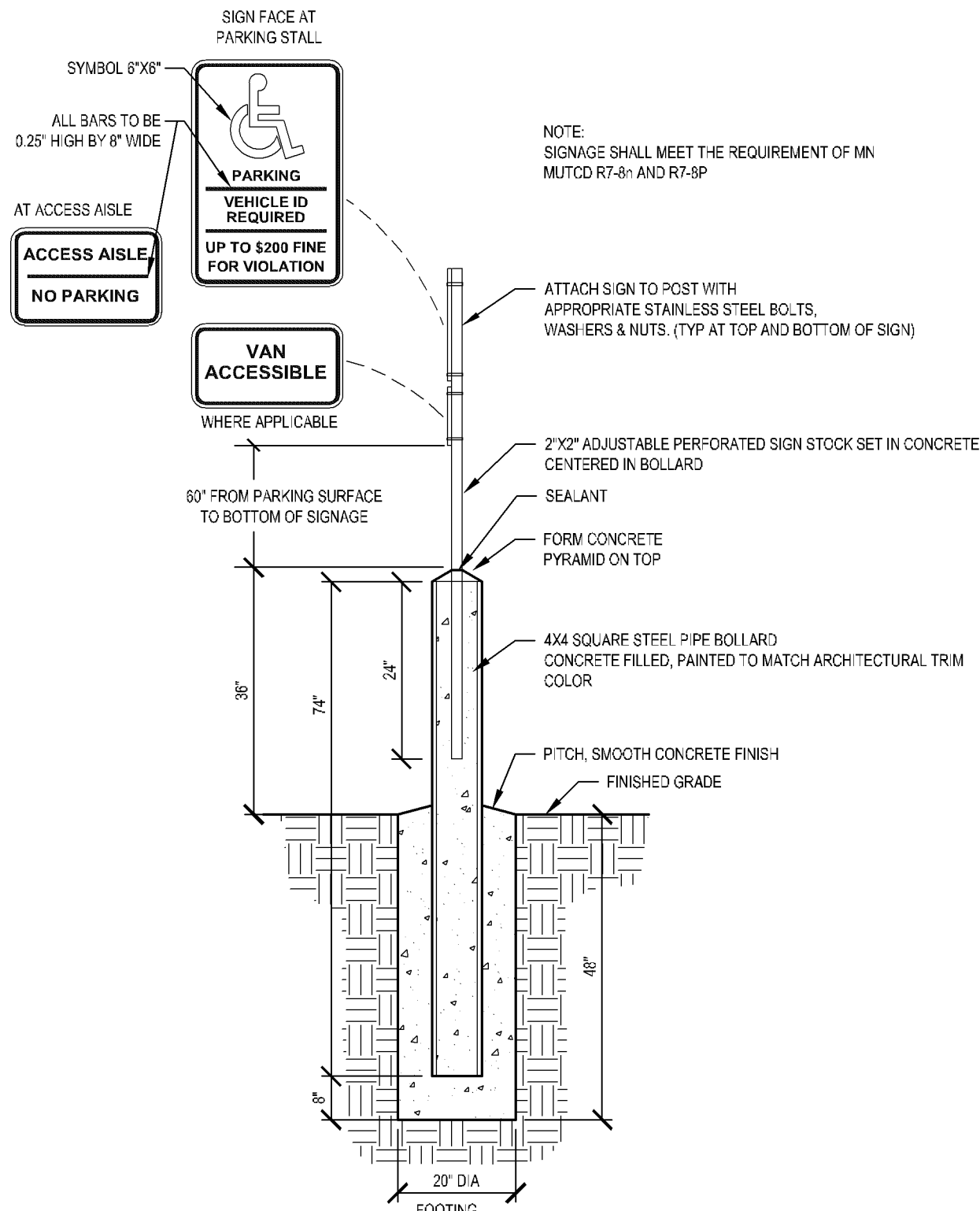
PIPE BOLLARD

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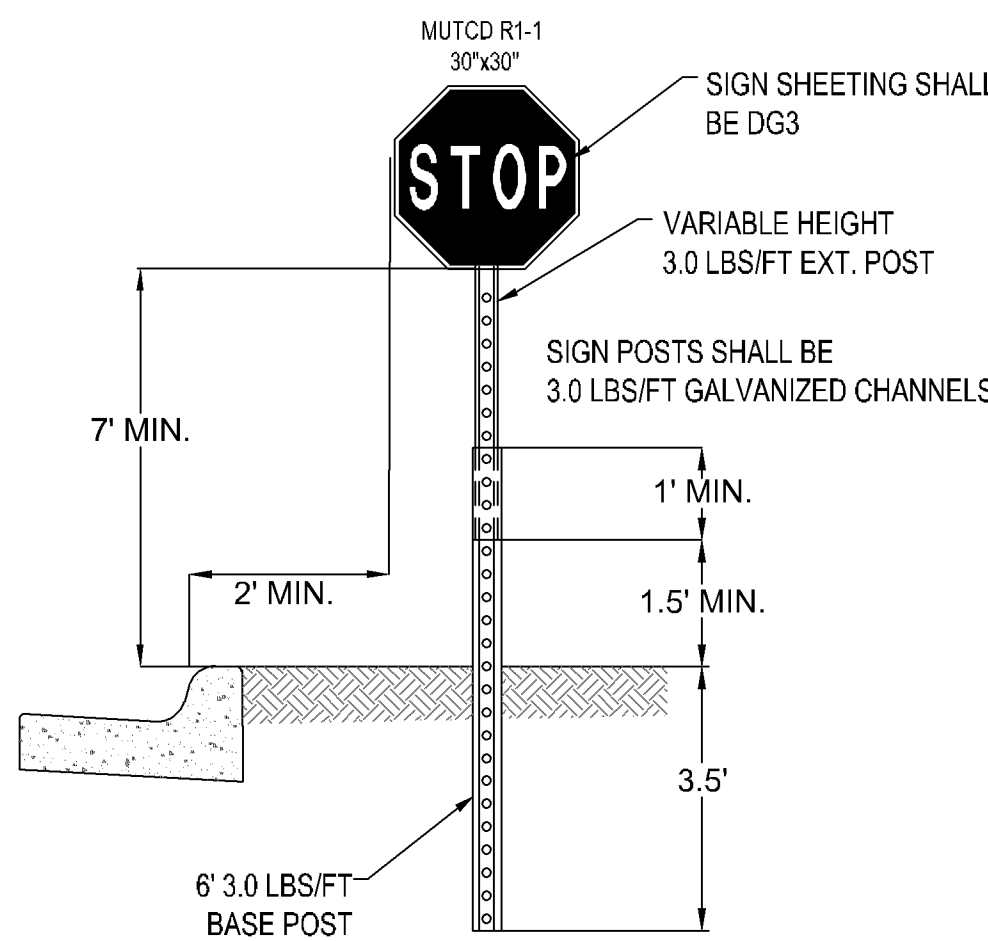
BITUMINOUS INTERLOCK AT MATCH LINE

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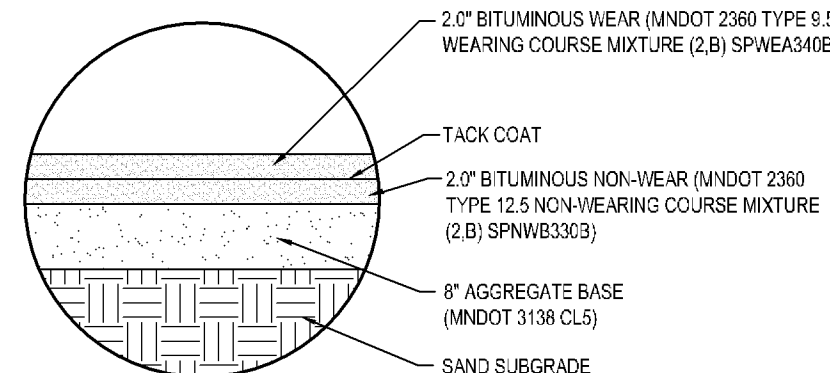
ACCESSIBLE PARKING SIGN

NO SCALE



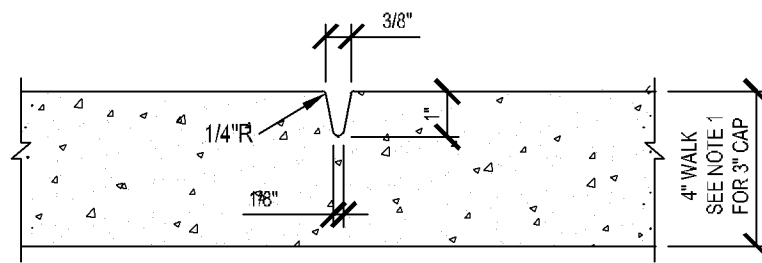
GROUND POST-MOUNT SIGN

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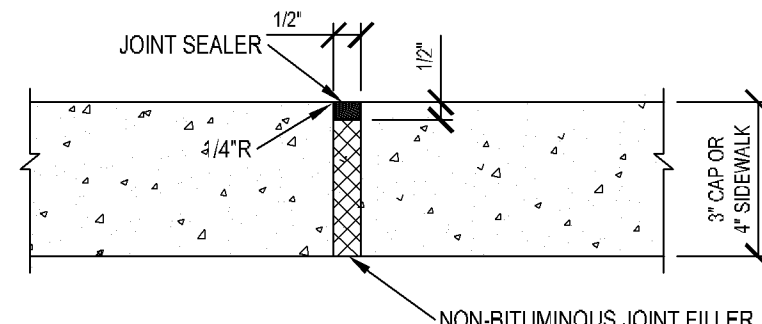
BITUMINOUS PAVEMENT SECTION

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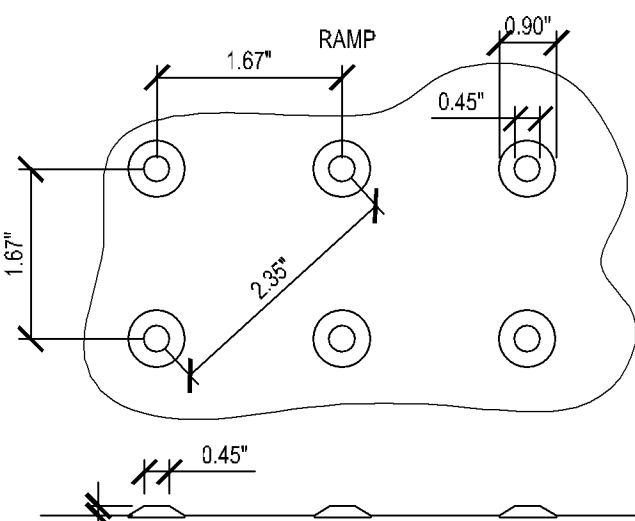
TOOLED CONTROL JOINT

SPACING: 5' WALK - 5' C/C
6' WALK - 6' C/C



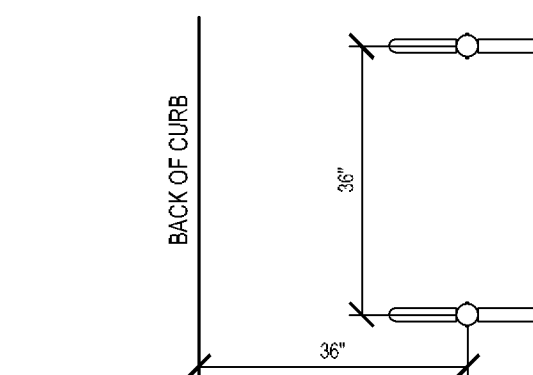
EXPANSION JOINT

MAXIMUM SPACING 100'. ALSO USE WHEN ABUTTING BUILDINGS.

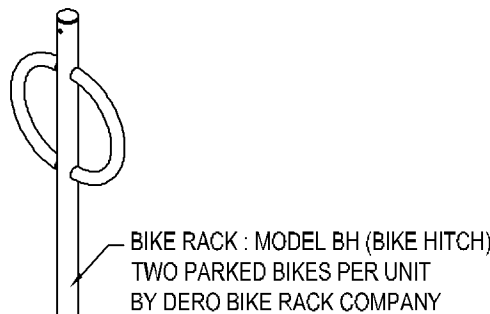


ACCESSIBLE CURB RAMP

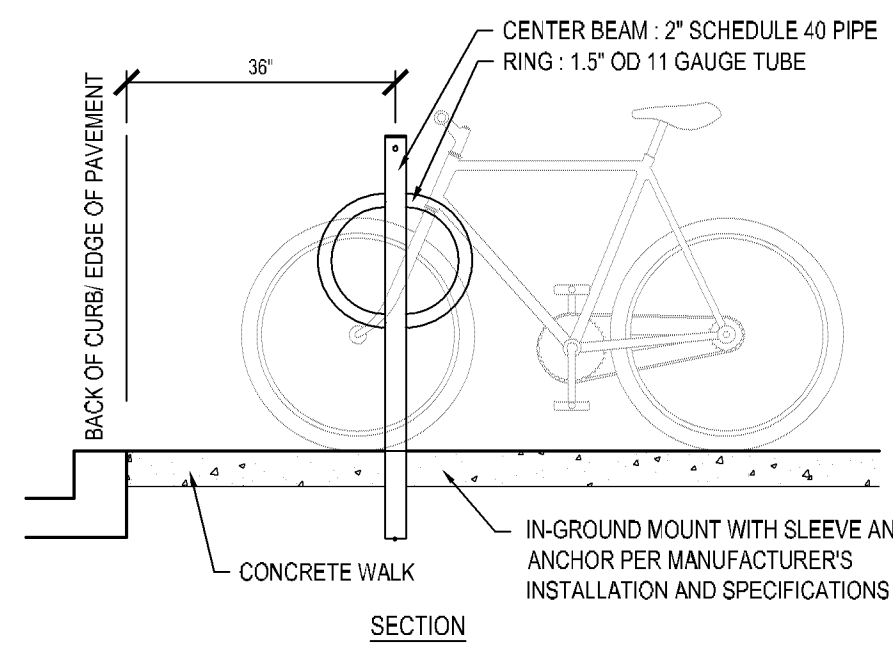
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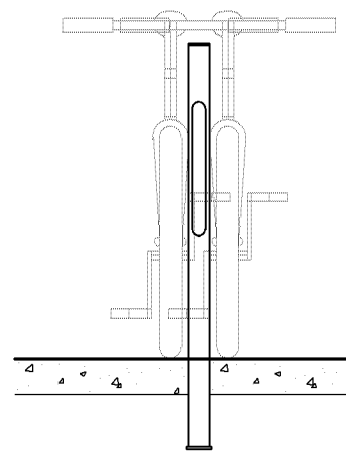
TYPICAL LAYOUT AND SETBACK



VIEW



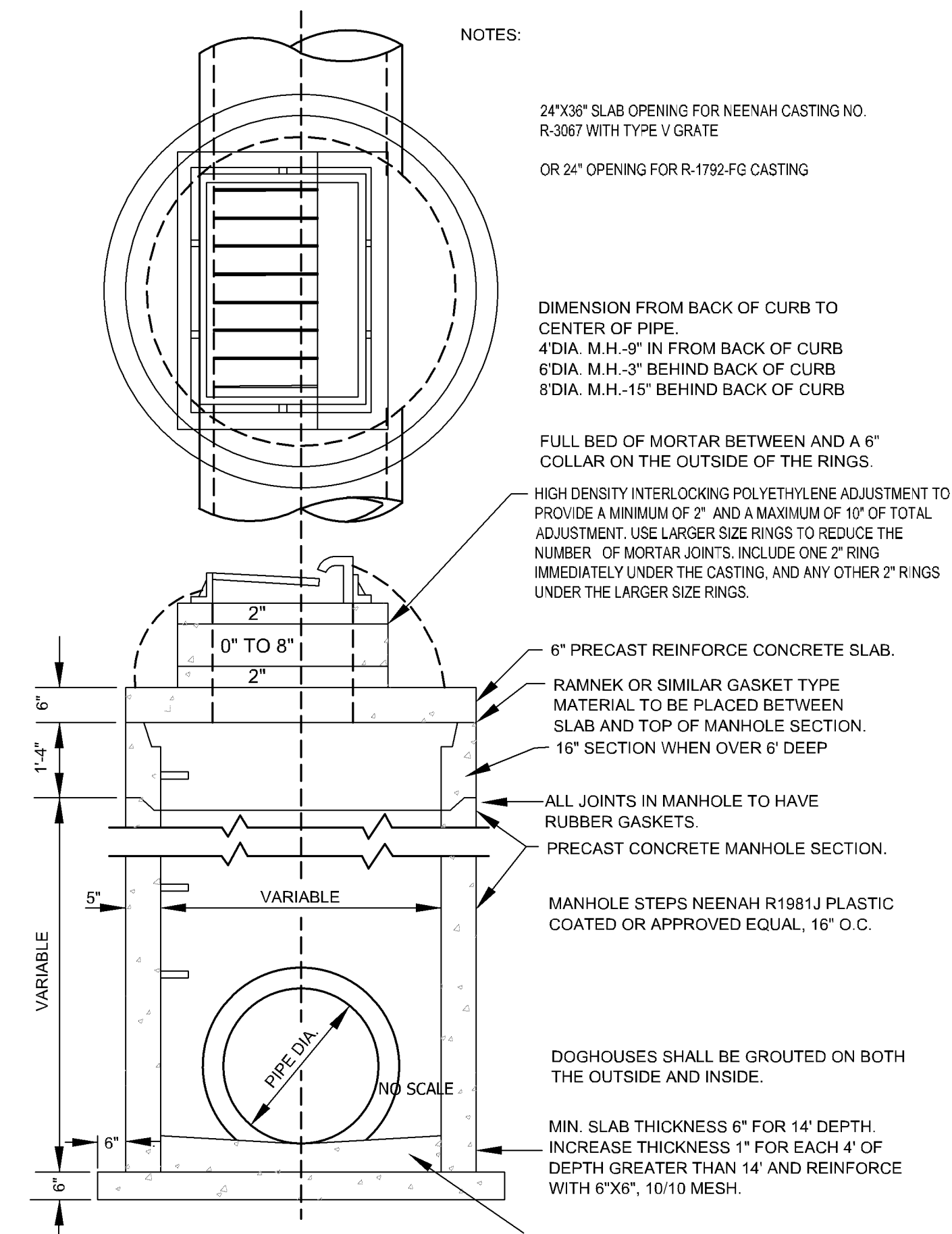
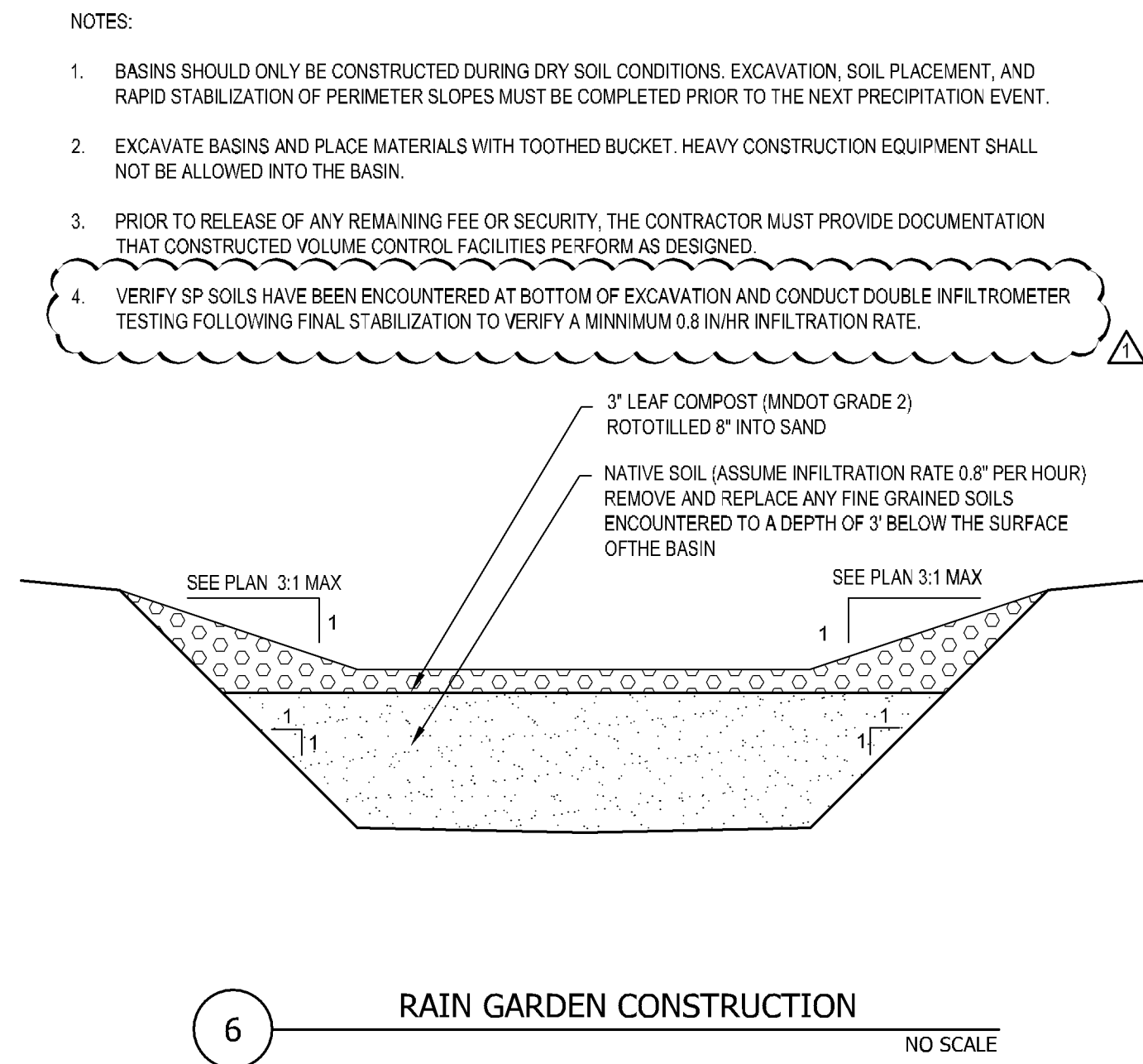
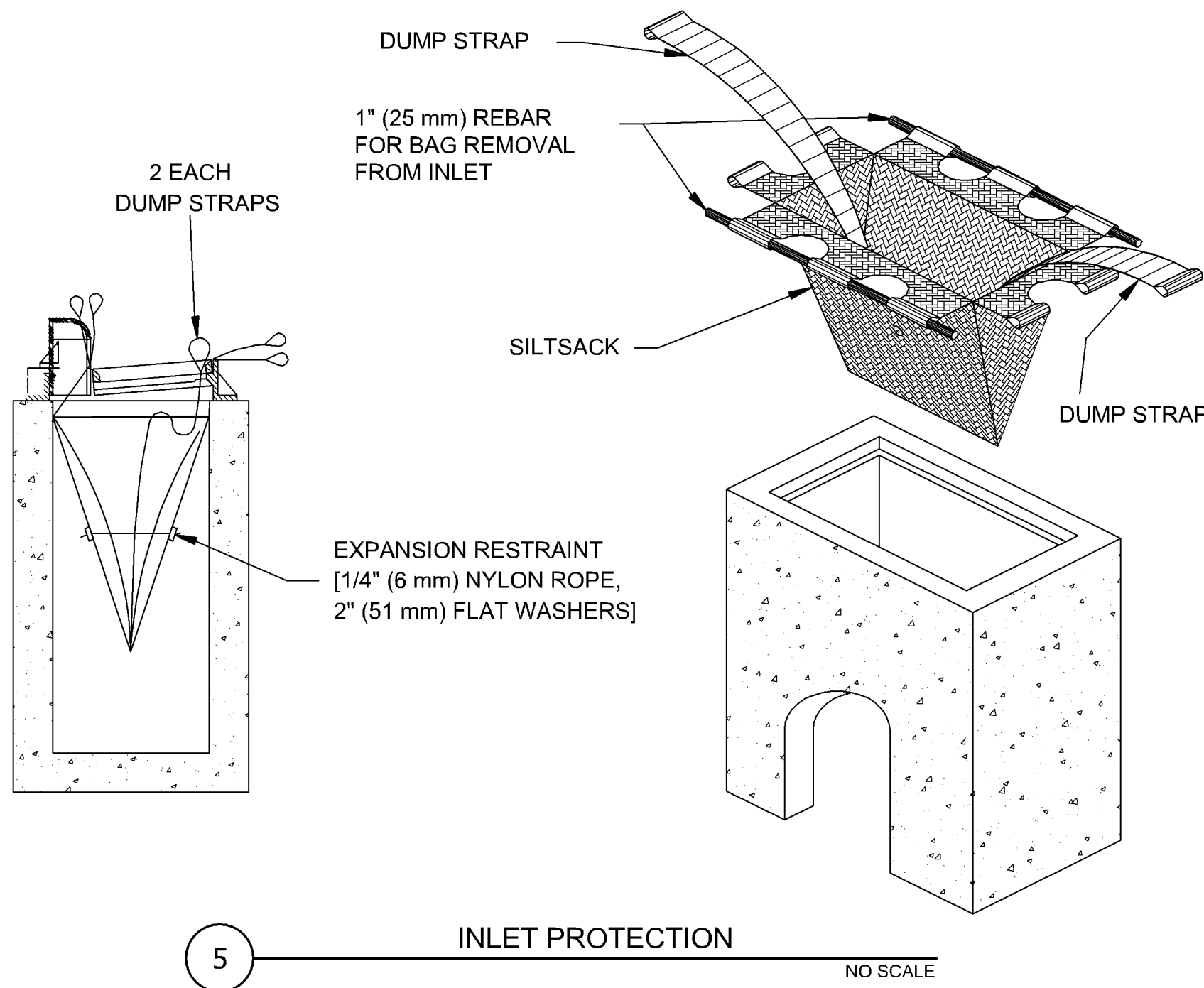
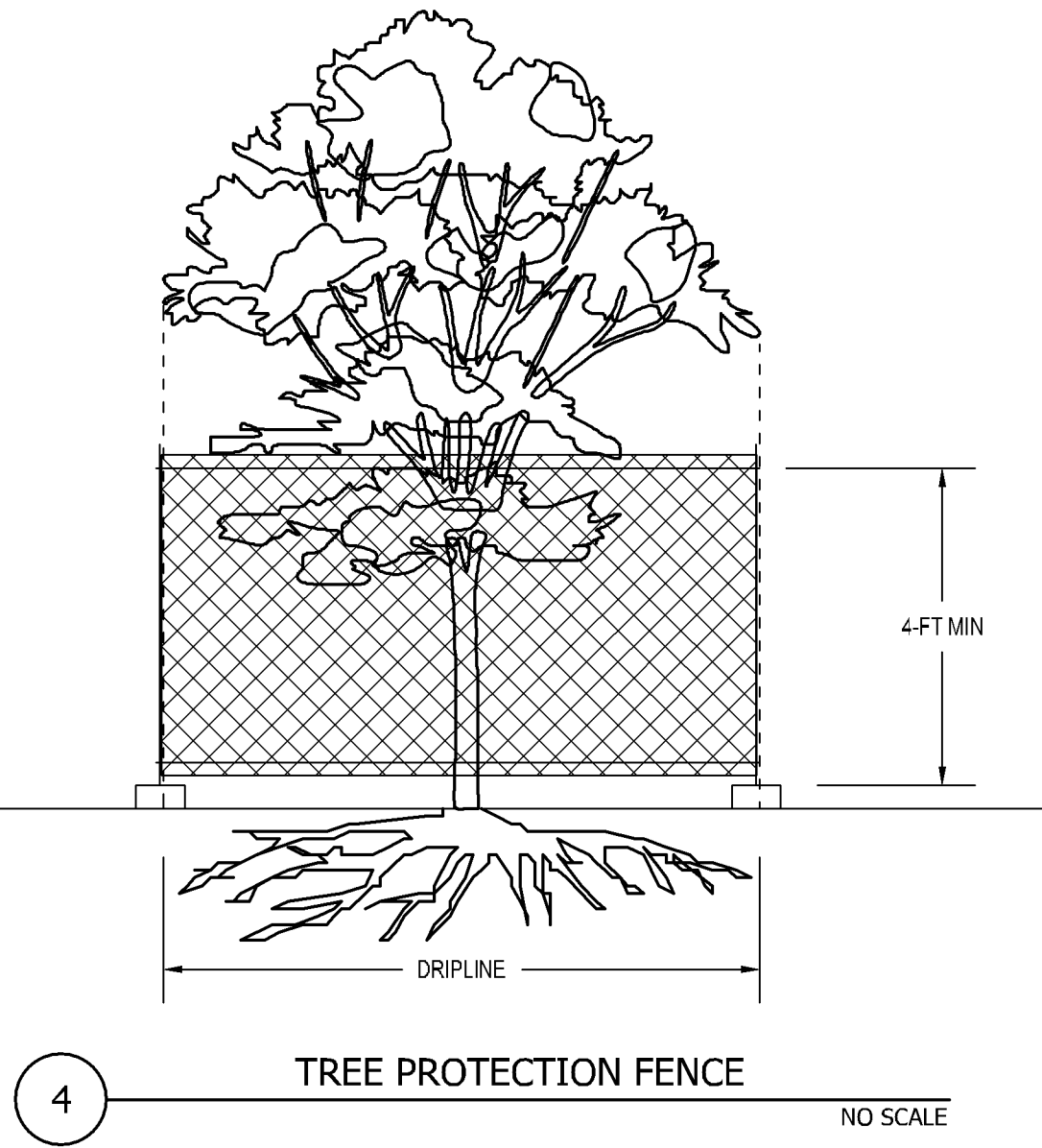
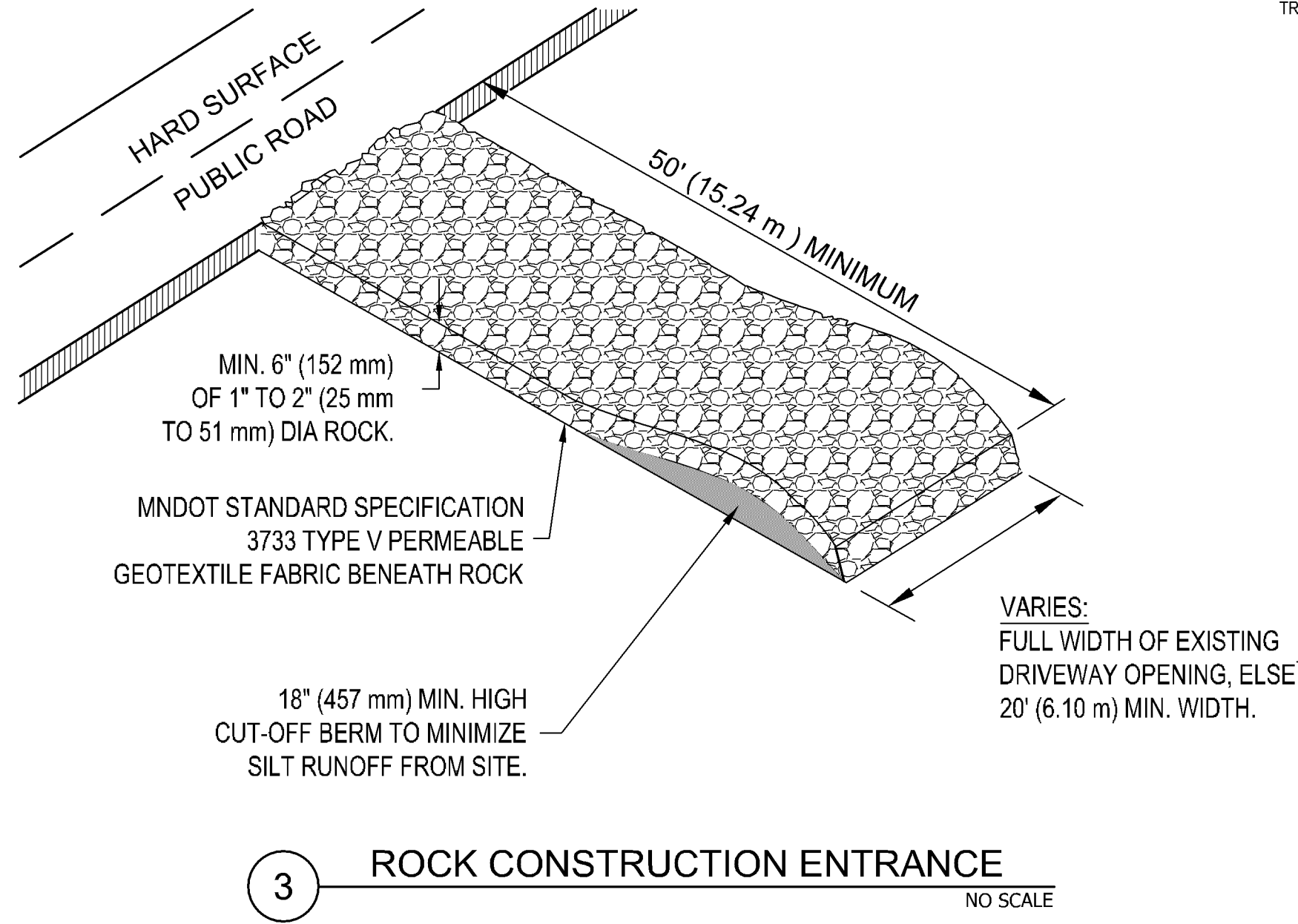
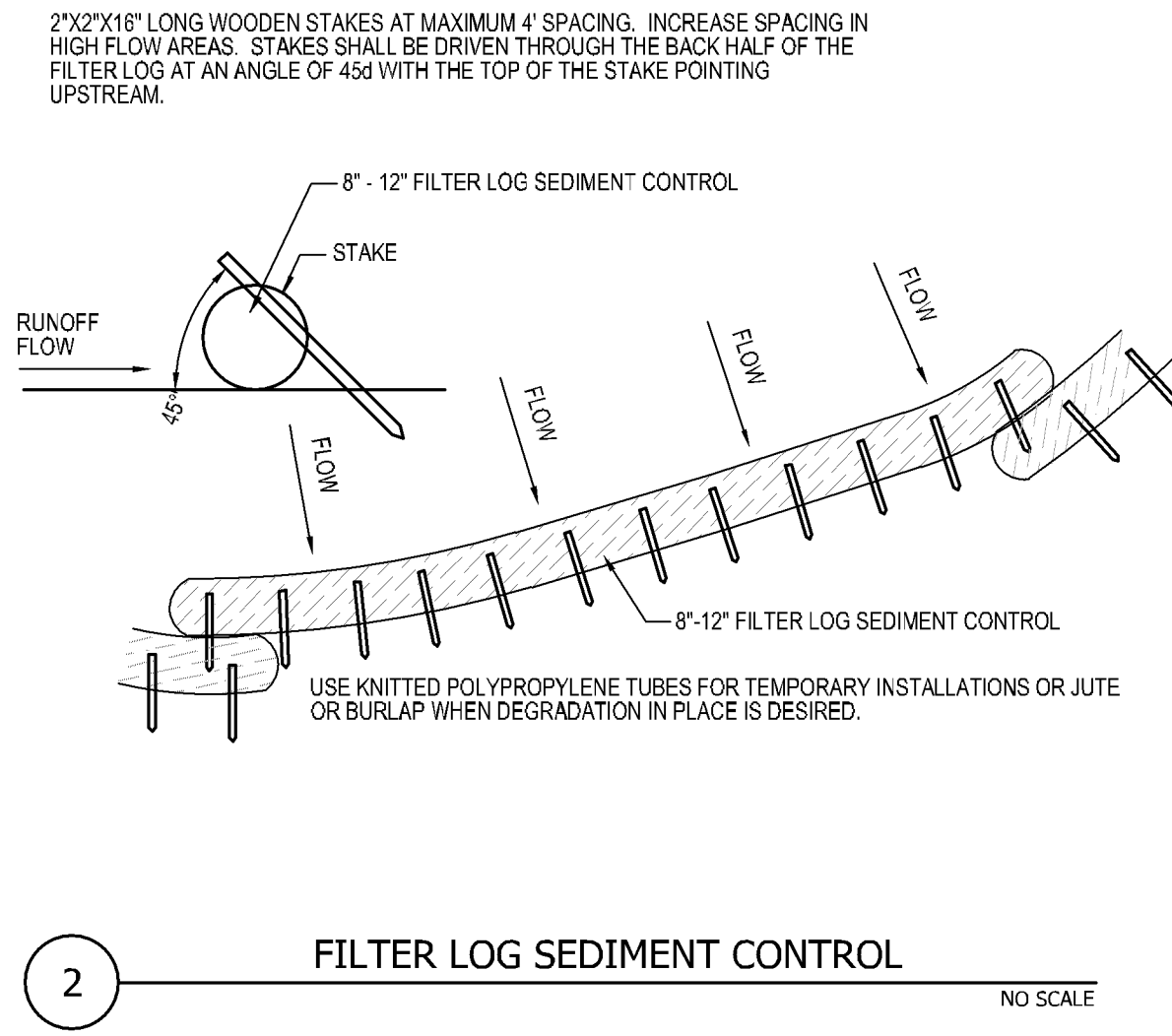
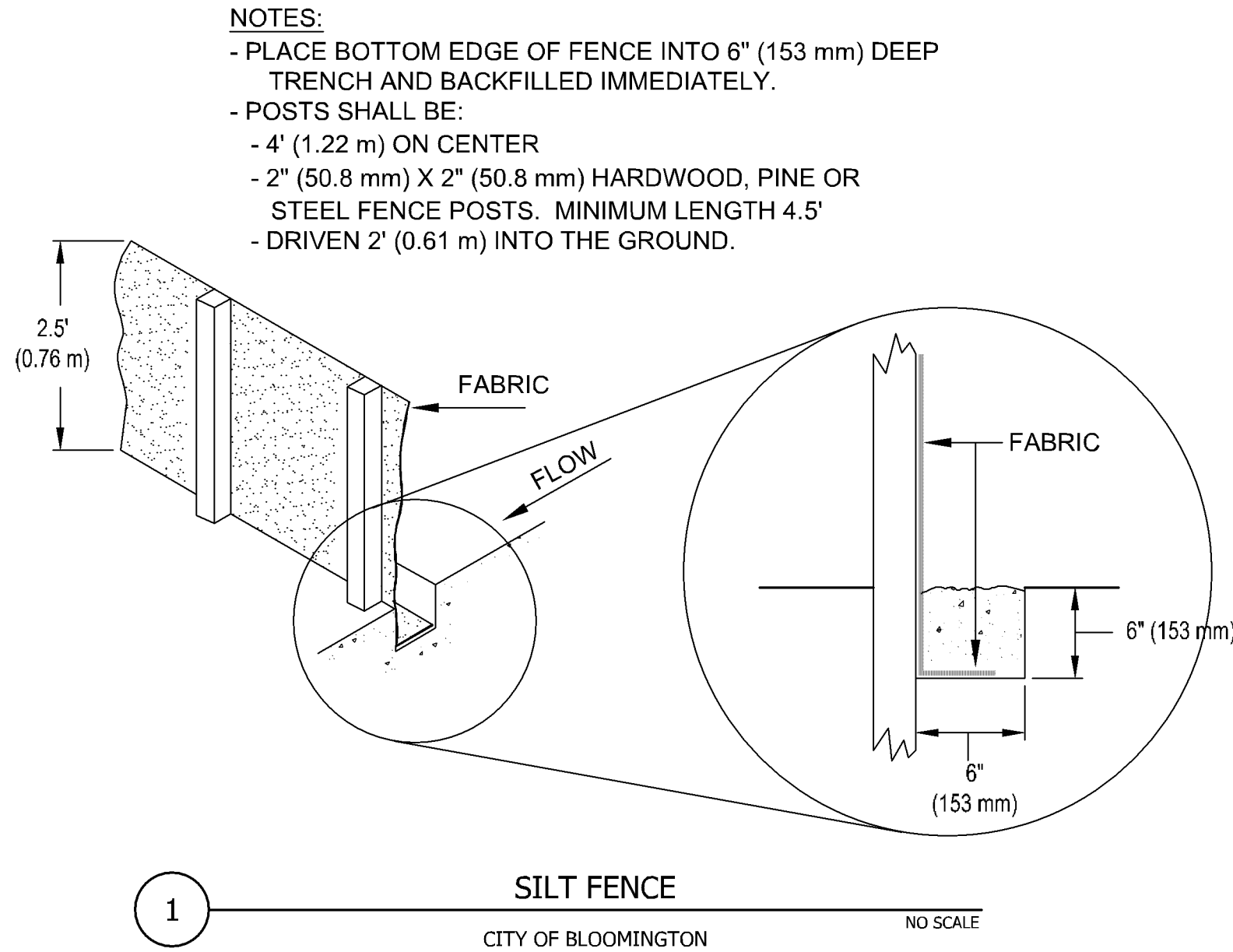
SECTION



SECTION

BIKE RACK

NO SCALE



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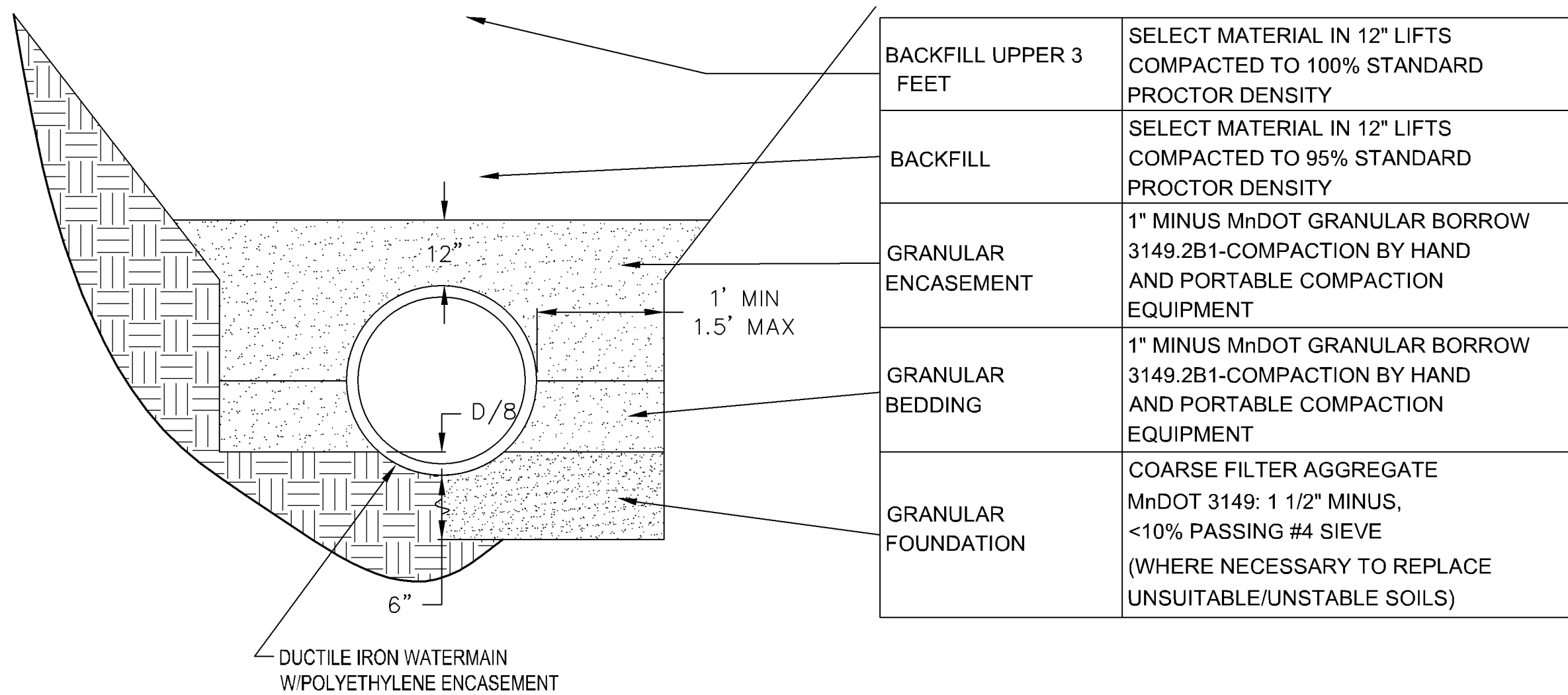
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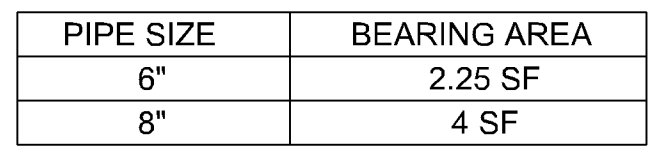
SHEET C502ARCD8.DWG

DETAILS
C-502
PROJECT NO.
ARC17008

- 1 **HYDRANT**
CITY OF BLOOMINGTON NO SCALE

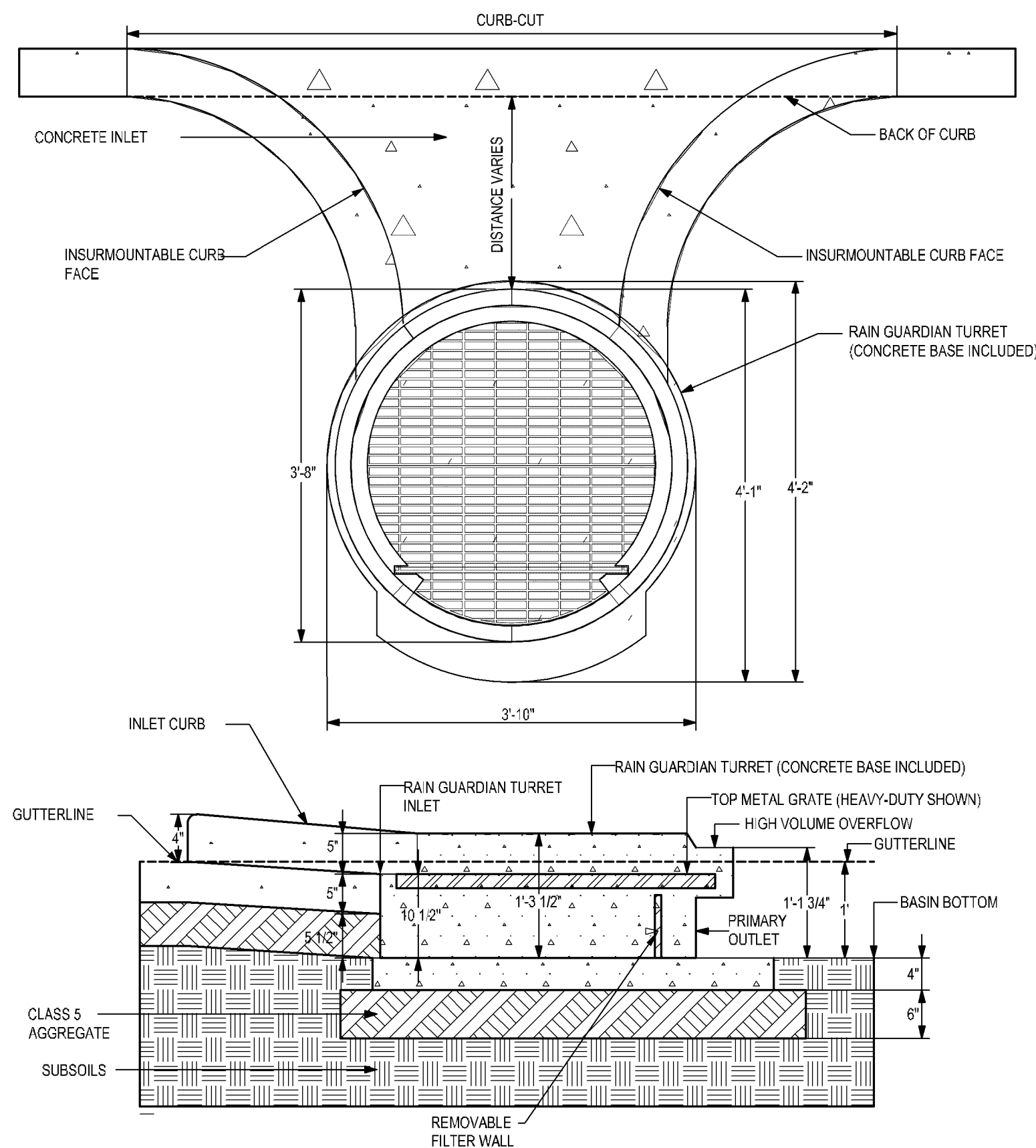


4 TYPICAL WATERMAIN INSTALLATION
CITY OF BLOOMINGTON NO SCALE



1. THRUST BLOCKS TO BE USED FOR BENDS 22 1/2° AND OVER, INCLUDING HYDRANTS AND HYDRANT TEES.
2. THRUST BLOCKS ARE REQUIRED REGARDLESS OF ANY OTHER RESTRAINT METHODS USED ON WATERMAIN LESS THAN 12" IN DIA.
3. RESTRAINT METHODS ON WATERMAIN LARGER THAN 12" SHALL BE MEGALUGS, LOCKING GASKETS OR OTHER APPROVED EQUAL. THE LENGTH OF RESTRAINT SHALL BE AS COMPUTED BY DIPRA.

2 THRUST BLOCK
CITY OF BLOOMINGTON NO SCALE



5 "TURRET" RAIN GUARDIAN NO SCALE

PROJECT NO.
ARC17008