

Iowa Department of Natural Resources
Construction Document

Hoop Building
for
State Forest Nursery
Story County, IA

Project #23-02-85-01
Plans prepared by
Land and Waters Bureau
Conservation and Recreation Division



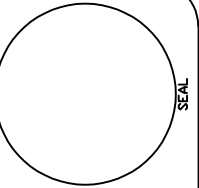
I hereby certify that this architectural document was prepared by me or under my direct personal supervision and that I am a duly Registered Professional Architect under the laws of the State of Iowa.

RYAN E. RICHEY _____ DATE _____

My license renewal date is June 30, 2023.

Pages or sheets covered by this seal:

A-001 - A-102



IOWA DEPARTMENT OF
NATURAL RESOURCES
ENGINEERING SERVICES - WALLACE BUILDING
502 E. 9TH ST., DES MOINES, IA 50319-0034
P: 515.725.8200
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Hoop Building for:
State Forest Nursery
2404 S. Duff Avenue
Ames, IA 50010

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AUTHORIZATION TO BID

_____	_____	_____	_____
BUREAU CHIEF - LAND AND WATERS	DATE	PARKS WILDLIFE FISHERIES LAW ENFORCEMENT	DATE

DIRECTORY

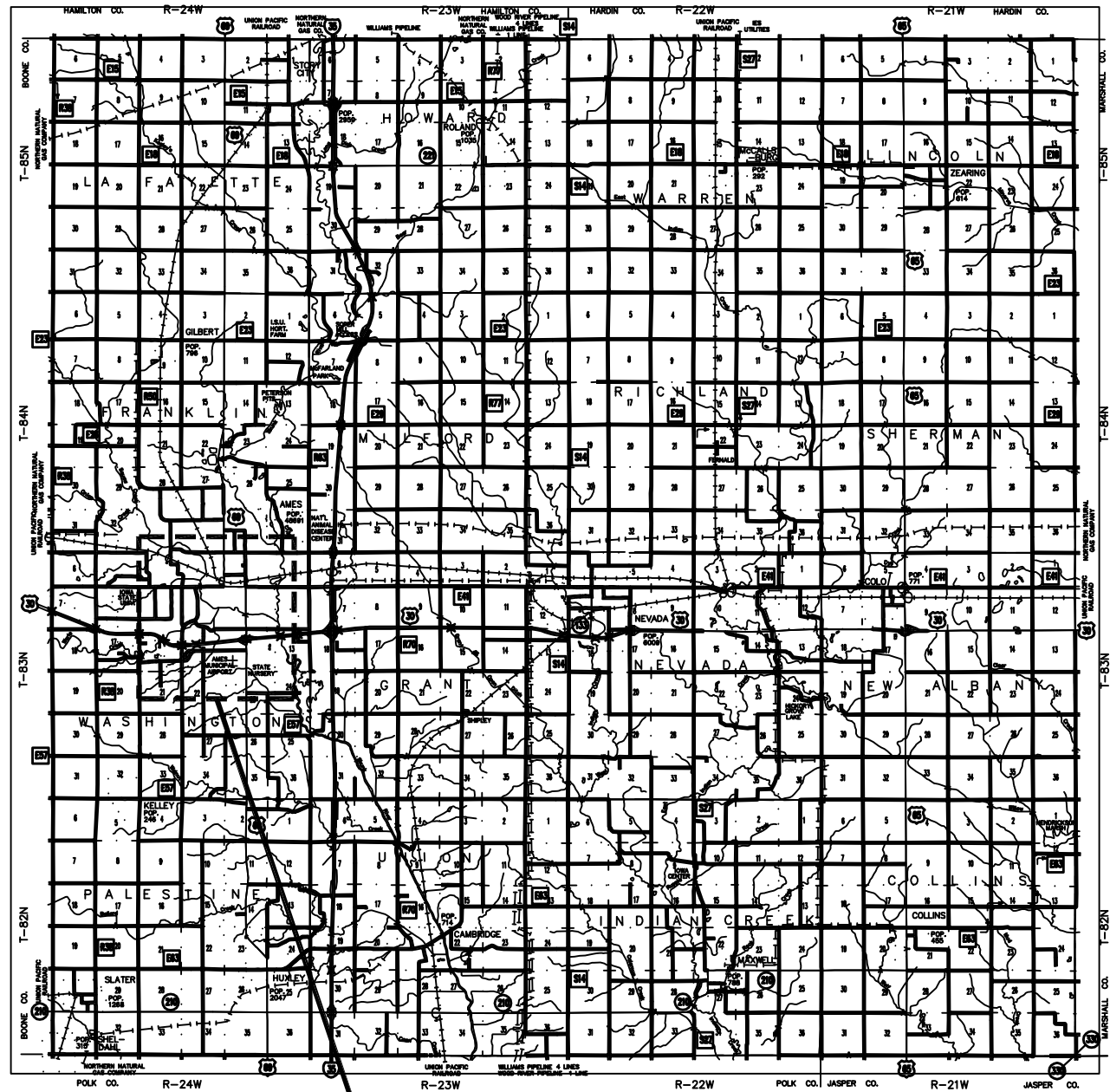
Architect		DNR Inspector	
COMPANY	Iowa Department of Natural Resources	COMPANY	Iowa Department of Natural Resources
ADDRESS	502 E 9th Street	ADDRESS	-
CITY,STATE,ZIP	Des Moines, IA 50319	CITY,STATE,ZIP	Jefferson, IA
CONTACT	Ryan Richey	CONTACT	Don Labate
TELEPHONE	515-979-0107	TELEPHONE	515-250-3714
FAX	-	FAX	-
EMAIL	ryan.richey@dnr.iowa.gov	EMAIL	don.labate@dnr.iowa.gov

State Forest Nursery is installing a new hoop building structure over their cob storage area. This cob storage area currently has a 75'-0" x 85'-0" concrete slab with 3x3x6 concrete blocks on it's perimeter. The contractor shall purchase 26 new blocks of the same dimension then remove all blocks and stack them two (2) high around the perimeter. The contractor shall order a new 88'-0" wide truss hoop-building as specified and installed as instructed.

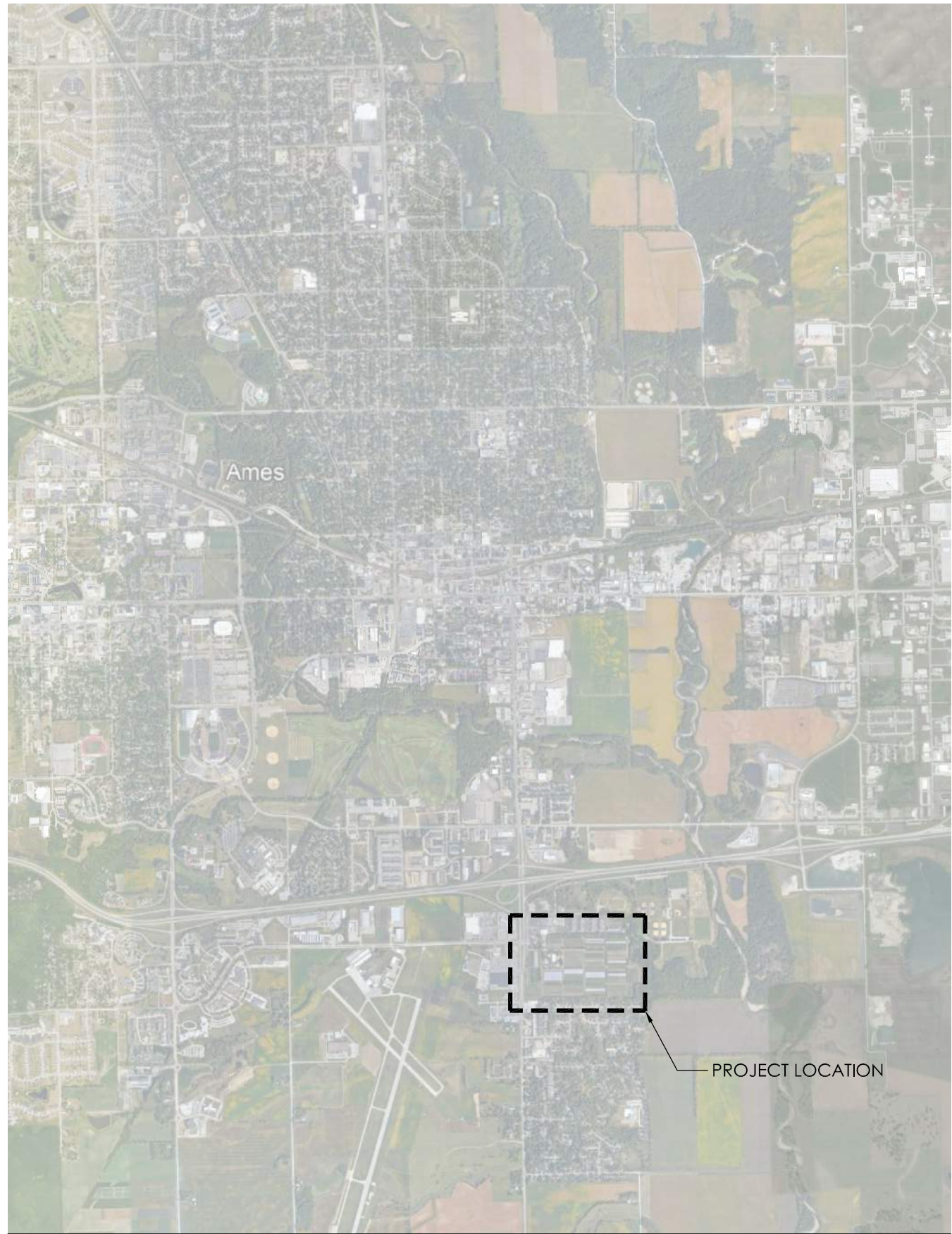
BID ITEMS

ITEM #	ITEM DESCRIPTION	ESTIMATED QUANTITY
1	Mobilization	Lump Sum
2	3 x 3 x 6 Concrete Blocks	26 Each
3	Pavement Cleaning and Block Installation	Lump Sum
4	Concrete Footings	16 Each
5	1" Clean Rock	40 Tons
6	Hoop Building, Installation, and All Associated Items	Lump Sum

DRAWN BY: _____ PROJECT NUMBER: 23-02-85-01
 DNR BY: _____ DATE: 02.21.2023
 SHEET No: **A-001**



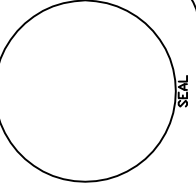
NURSERY LOCATION



PROJECT LOCATION

02 Story County – Ames, Iowa
SCALE: NTS

01 Ames, Iowa – State Forest Nursery
SCALE: NTS



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	02.21.2023

SHEET No
A-002

GENERAL CONSTRUCTION NOTES

Verify actual locations and elevations with DNR engineer. All work shall conform to and be performed in accordance with all applicable codes and ordinances.

The contractor shall visit the site and inspect the project area and thoroughly familiarize themselves with the actual job conditions prior to bidding and the start of work. Failure to visit the project site shall not relieve the contractor from performing the work in accordance to the plans, specification, special provisions and contract.

The contractor shall verify, at the site, all dimensions and conditions shown on the plans and shall notify the DNR engineer of any discrepancies, omissions, and/or conflicts prior to proceeding with the work.

It shall be the contractor's responsibility to provide waste areas or disposal sites for excess material (excavated material or broken concrete) which is not desirable to be incorporated into the work involved on this project. No payment for overhaul will be allowed for material hauled to these sites. No material shall be placed within the right-of-way, unless specifically stated in the plans or approved by the DNR engineer.

The contractor shall not disturb desirable grass areas and desirable trees outside the construction limits. The contractor will not be permitted to park or service vehicles and equipment or use these areas for storage of materials. Storage, parking and service areas will be subject to the approval of the DNR engineer.

Where utilities and fixtures are shown as existing on the plans or encountered within the construction area, it shall be the responsibility of the contractor to notify the DNR engineer of those utilities prior to the beginning of any construction. The contractor shall be afforded access to these facilities for necessary modification of services. Underground facilities, structures and utilities have been plotted from available surveys and records and therefore their locations must be considered approximate only. It is possible there may be others, the existence of which is presently not known or shown. It is the contractor's responsibility to determine their existence and exact location and to avoid damage thereto. No claims for additional compensation will be allowed to the contractor for any interference or delay caused by such work.

The contractor shall shape graded area to maintain surface drainage. All elevations are to finish grade.

The contractor is expected to have materials, equipment, and labor available on a daily basis to install and maintain erosion control features on the project. This may involve seeding, silt fence, rock ditch checks, silt basins or silt dikes.

All construction shall be in accordance with Statewide Urban Standard Design Specifications for public improvements (SUDAS). All construction testing to be in accordance with SUDAS and is the expense of the contractors.

Divisions 20-41 of the standard specifications for bridge and highway construction, current edition with GS-15011 shall apply to this project.

GENERAL NOTES

- A. CONTRACTOR TO FIELD VERIFY ALL DIMENSIONS AND EXISTING CONDITIONS PRIOR TO WORK COMMENCING.
- B. CONTRACTOR SHALL SUBMIT HOOP-BUILDING MANUFACTURER'S STAMPED DRAWINGS THAT ABIDE BY IOWA BUILDING CODE (IBC 2018). ENGINEERED DRAWINGS BY MANUFACTURER.
- C. STOCKPILE ALL EXCESS DIRT IN LOCATION DESIGNATED BY DNR INSPECTOR.
- D. IF HOOP BUILDING PURCHASED BY CONTRACTOR DIFFERS FROM THE ONE SHOWN IN PLANS AND IS APPROVED BY THE DNR, ANY DEVIATION IN MATERIALS SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR (EG - EXTRA COLUMNS).

PROJECT NARRATIVE

The contractor shall be responsible for providing and installing all items within this narrative, the drawings, and project manual unless specifically noted otherwise. This narrative is not meant to be a comprehensive account of all items to be covered by the contract, review all documents. Contractor is responsible for field verifying all dimensions and establishing all quantities that are dictated as "lump sum".

This project, State Forest Nursery - Hoop Building, shall commence August 2023 and after all contracts are executed and in place. Construction shall be completed no later than October 27, 2023.

The contractor shall excavate and remove the top 4" of vegetation and dirt around the perimeter of the existing cob storage area, as shown. The contractor shall then order 26 additional 3x3x6 concrete blocks, remove all existing blocks from the slab, clean the slab, then and place all blocks around the perimeter of the slab. The contractor shall install additional blocks to have a two (2) block high wall.

The contractor shall then dig sixteen (16) 3'-0" diameter x 5'-0" deep holes for the hoop building footings. The contractor shall place a 3'-0" diameter sono-tube to form the top 6" of the hole and extend another 24" above the adjacent slab elevation. All sono-tube elevations shall be level for install of the new hoop building. The contractor shall place a #4 rebar cage, 12" o.c. all directions, into each footing and pour the footing full with 3,500 psi building foundation concrete (ACI301).

Contractor shall then place 40 tons of 1" clean rock in the 4" deep excavated area around the perimeter of the existing concrete slab. The contractor shall then install the 88'-0" wide truss x 80'-0" deep hoop building, place the trusses centered on the concrete footings. Contractor shall use hardware supplied by hoop building manufacturer and follow all installation instructions and recommendations per building manufacturer.

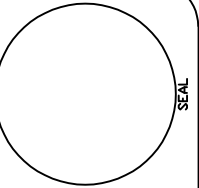
HOOP BUILDING REQUIREMENTS

Hoop building shall have 88'-0" wide - standard height, Accusteel building with Integrity truss (or approved equal) and shall be 80'-0" deep with six (6) trusses at 16'-0" o.c. These trusses shall land on the 3'-0" wide concrete footings as specified. There shall be four (4) rear supports for the back cover, the front of the building shall remain open. The building shall have all metal frames hot-dipped galvanized and a required 20 year warranty. The building shall be covered with enduro-loc polyethylene fabric and keder covers at all trusses, color to be white. The rear end wall shall have four (4) 24x30 mesh vents.

Entire building package shall have engineered, stamped drawings that abide by ibc 2018. The building shall have a 20 year warranty. Contractor can use any manufacturer that meets or exceeds these requirements, alternates shall be approved by DNR architect.

KEYNOTES

1. EXISTING CONCRETE COB STORAGE SLAB TO REMAIN. THOROUGHLY CLEAN SLAB AFTER MOVING CONCRETE BLOCKS.
2. EXISTING CONCRETE DRIVE TO REMAIN.
3. EXISTING 3X3X6 CONCRETE WALL BLOCKS, MOVE TO CLEAN SLAB AND REALIGNMENT OF PERIMETER WALL BLOCKS. CONTRACTOR SHALL ORDER 26 ADDITIONAL, IDENTICAL, BLOCKS AND INSTALL ON EXISTING TO CREATE A TWO (2) BLOCK HIGH WALL.
4. CONTRACTOR TO REMOVE TOP 4" OF VEGETATION AND DIRT, STOCKPILE DIRT IN LOCATION DESIGNATED BY DNR INSPECTOR. SEE A-005 FOR EXTENTS OF EXCAVATION.
5. EXISTING STATE PROPERTY TO REMAIN, RESTORE ALL DISTURBED AREAS.
6. 3'-0" DIAMETER, CONCRETE FOOTINGS WITH SONO-TUBE FORMED TOP 2'-6".
7. #4 REBAR FOOTING CAGE, REBAR 12" O.C. ALL DIRECTIONS.
8. 1" CLEAN ROCK, 4" DEEP IN ENTIRE EXCAVATED AREA.
9. HOOP BUILDING BASE-PLATE, BY BUILDING MANUFACTURER, ALL TRUSSES TO LAND IN THE CENTER OF THE FOOTING. PLATES TO CONNECT TO THE FOOTING PER MANUFACTURER'S RECOMMENDATIONS.



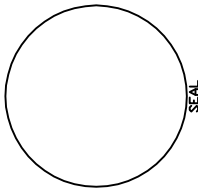
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DATE:
02.21.2023

SHEET No
A-003



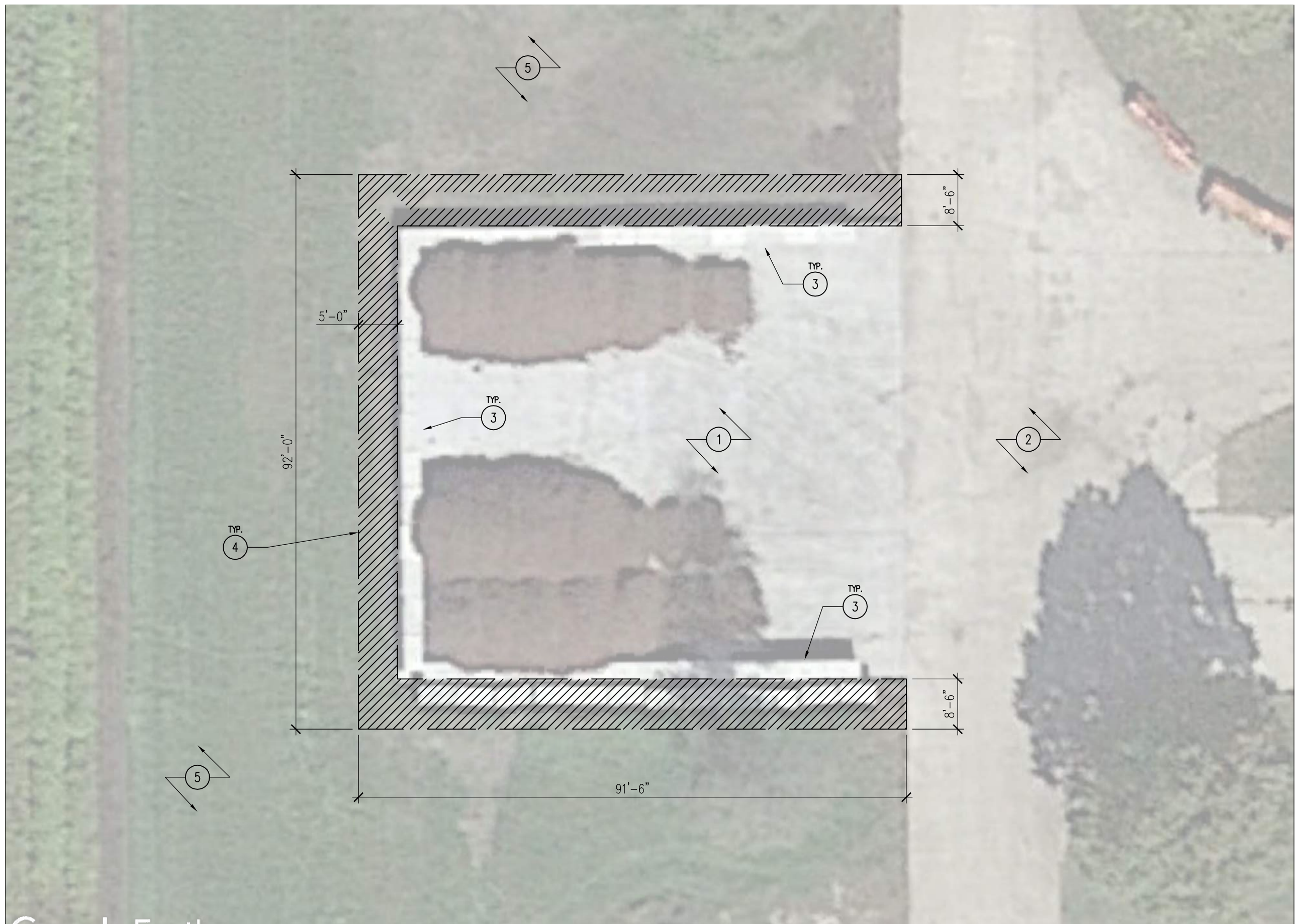
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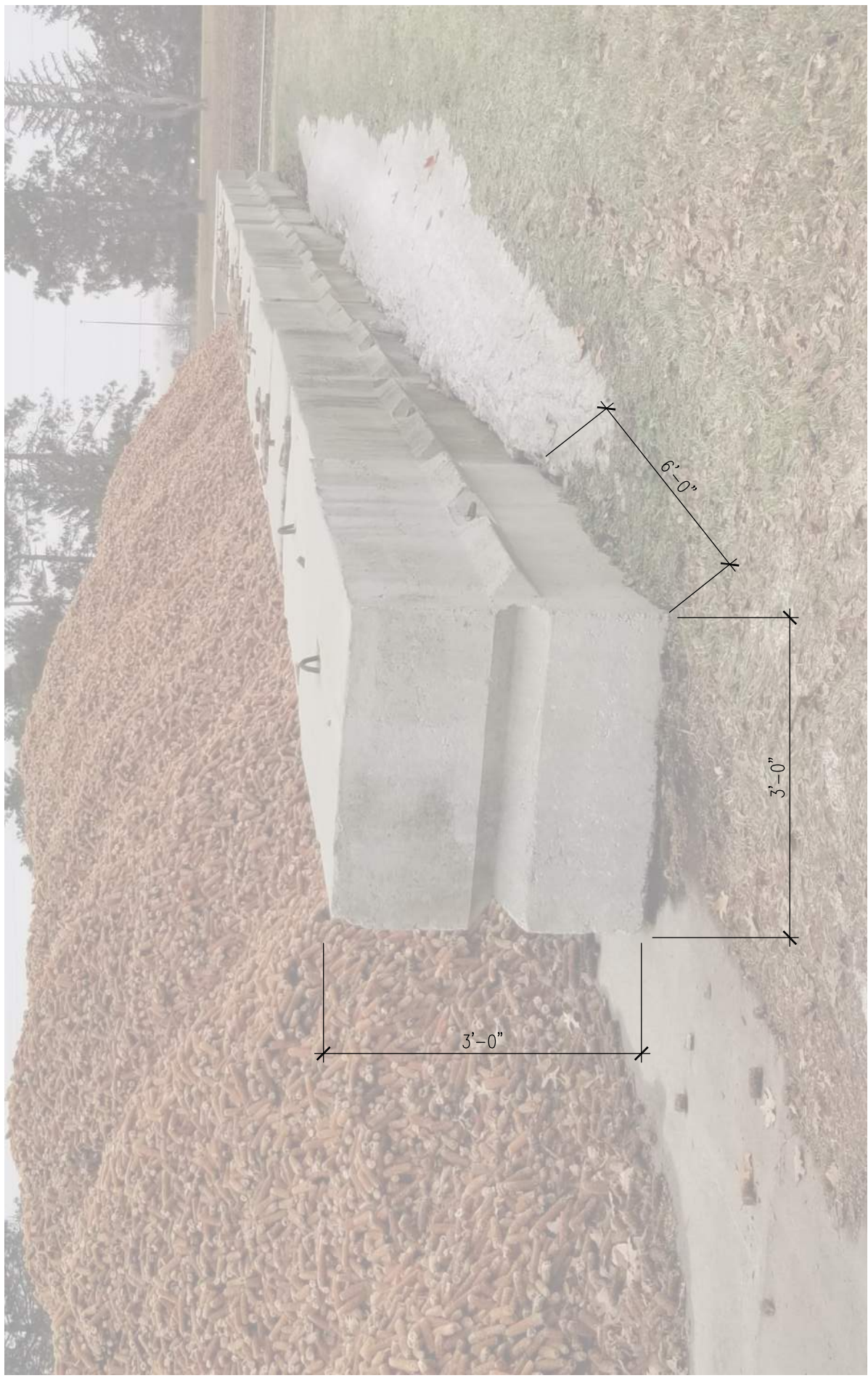
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A-050



01 AERIAL - EXISTING COB STORAGE AREA
SCALE: 1/16" = 1'-0"



01 PHOTO - CONCRETE WALL BLOCK

SCALE: NTS



01 PHOTO - EXISTING COB STORAGE AREA

SCALE: NTS

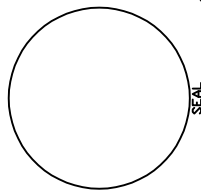
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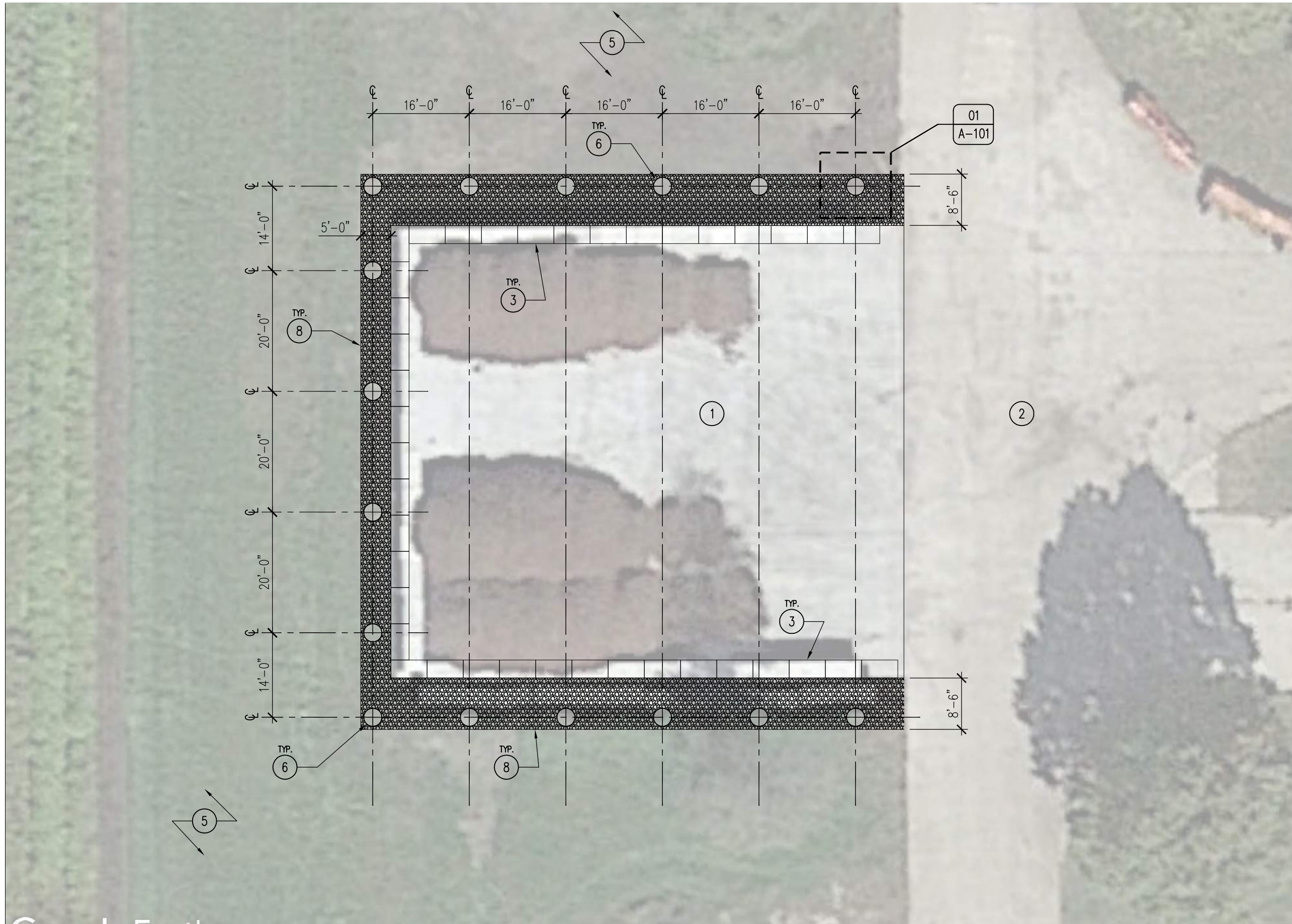
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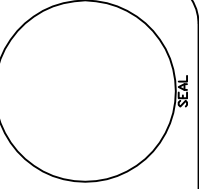




01

AERIAL - HOOP BUILDING FOOTING LAYOUT

SCALE: 1/16" = 1'-0"



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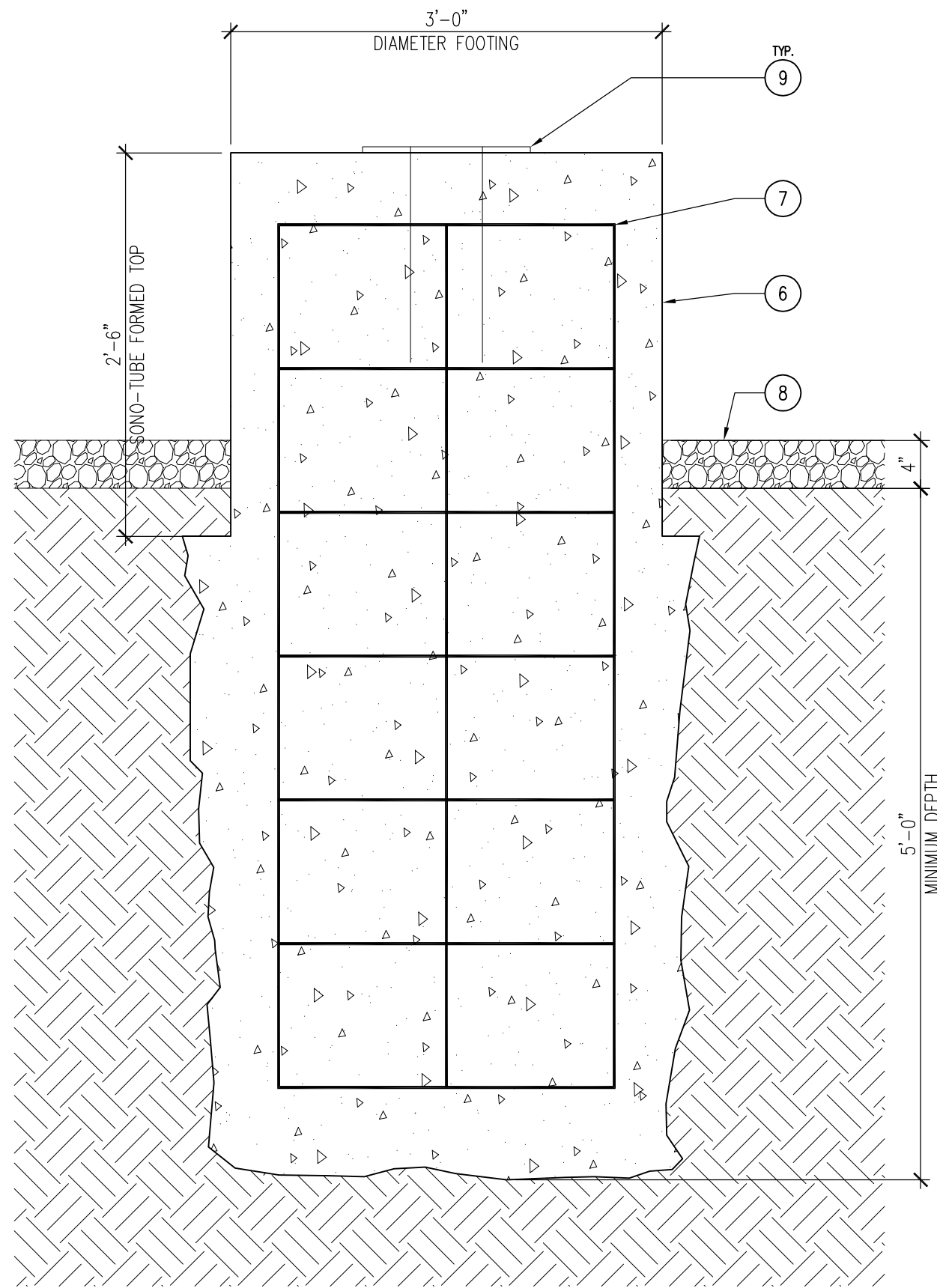
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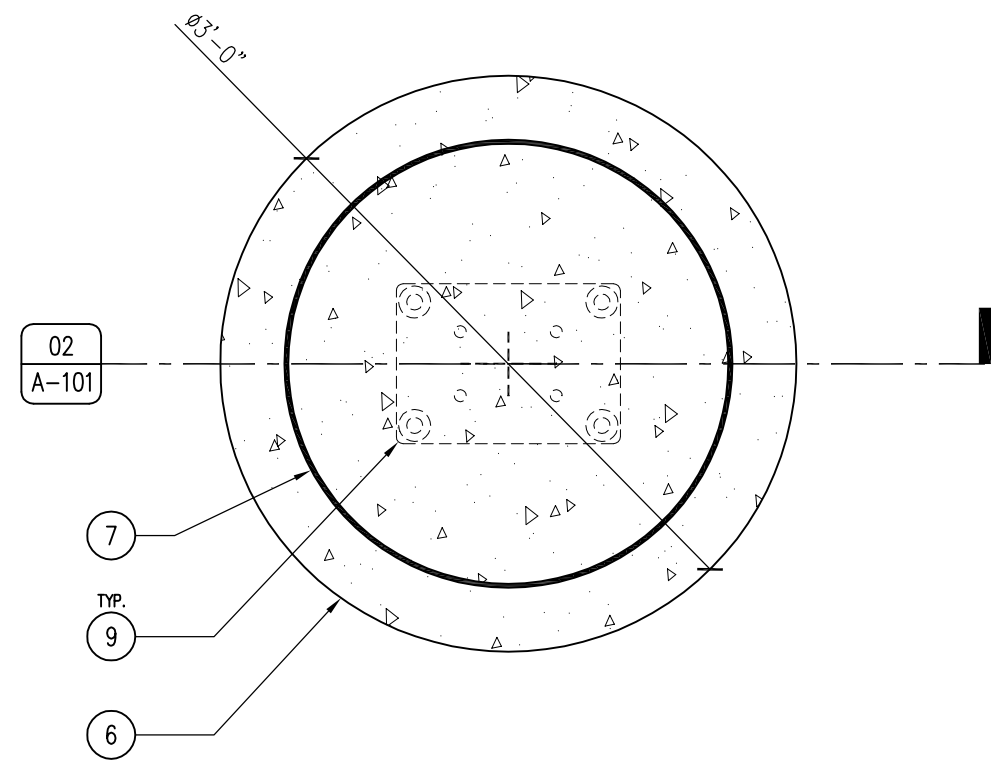
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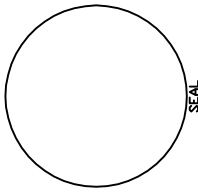
A-100



02 DETAIL - FOOTING SECTION
SCALE: 1" = 1'-0"



01 DETAIL - FOOTING PLAN
SCALE: 1" = 1'-0"



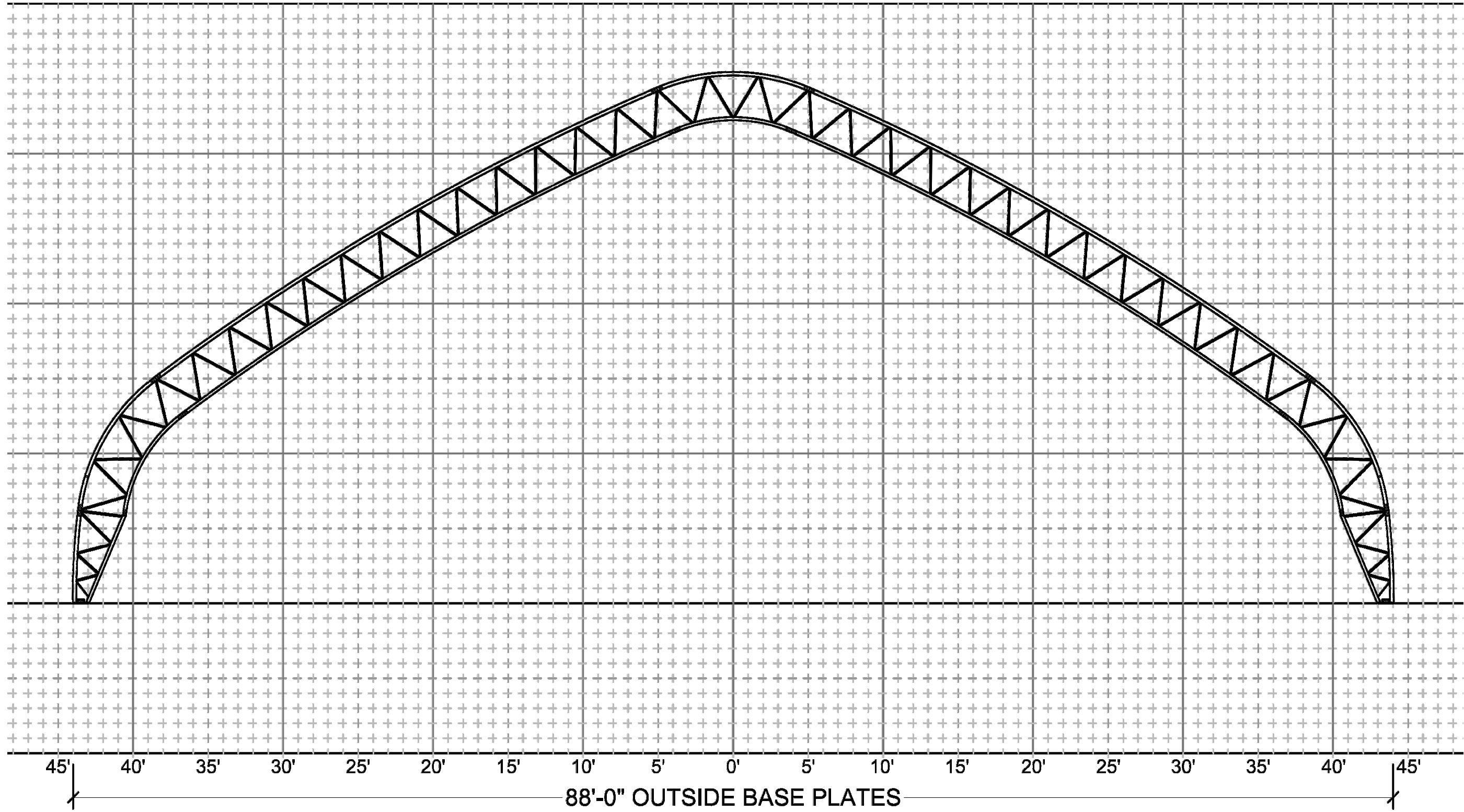
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A-101



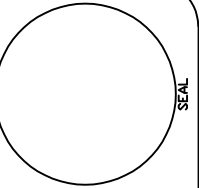
1'x1' GRID



01

HOOP BUILDING TRUSS

SCALE: NTS



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