

**CITY OF WEST DES MOINES
STAFF REPORT COMMUNICATION**

Meeting Date: December 27, 2023

ITEM: Microsoft DSM 42, 11100 Booneville Road – Approve Major Modification to Site Plan to allow construction of a data center building – Microsoft Corporation – MaM-006237-2023

Resolution: Approval of Major Modification to Site Plan

Background: Ryan Hardisty with Civil Design Advantage, on behalf of the applicant and property owner, Microsoft Corporation, requests approval of the Major Modification to Site Plan for the approximately 153-acre property located at 11100 Booneville Road. The applicant proposes to construct an approximately 245,000 square foot data center building with associated parking lot.

Staff Review & Comment:

- **Financial Impact:** As a part of a development agreement approved by City Council on April 19, 2021, for this site. The City will undertake the following proposed public use improvements:
 - Reconstruction of Booneville Road from S. 100th Street to S. 115th Street; and
 - Construction of S. Grand Prairie Parkway from Mills Civic Parkway to Raccoon River Drive; and
 - Extension of Grand Avenue from S. 88th Street to S. 115th; and
 - Extension of approximately one mile of Grand Avenue Trail from S. Grand Prairie Pkwy to the west boundary of the Urban Renewal Area.

The proposed street improvements will include the installation of the associated utilities, streetlights and sidewalks.

- **Key Development Aspects:**
 1. **Parking Lot Landscaping:** The applicant is proposing to only plant shrubs within the landscape islands in the parking lot instead of the required trees and reduce the number of landscape islands due to security concerns. Also, the applicant is proposing to install gravel in areas around the parking lot and buildings where access to utility structures for maintenance purposes is necessary instead of planting grass. Grass will be planted between the main north/south access road and the parking lot. This was discussed with the Development & Planning Subcommittee as part of the requested approval of DSM 41 and was a compromise between the operational concerns and the code required landscaping (see Development & Planning Subcommittee bullet below). The City Council supported this approach as part of the site plan approval of DSM 41, which is the building directly north of this proposed data center building. The applicant has placed the required parking lot trees in the buffer areas surrounding the site. The areas of gravel in lieu of vegetation around the building's utility structures are screened from public view by the landscape buffer around the site. Staff believes these changes proposed to the landscaping on the site plan meet the intent of the code and are a reasonable accommodation for the specific operational requirements of this project. Recommended conditions of approval that these alternative methods be approved by the City Council have been added.
- **Traffic Impact Study Findings:** No traffic study was required of this Major Modification to Site Plan since a traffic study was already completed for this entire site, including the proposed building. Any modifications to surrounding streets required of the traffic study have been completed.

- *Development & Planning Subcommittee*: On December 19, 2022, the Development & Planning City Council Subcommittee discussed the use of gravel in and around the proposed parking lot and the omission of trees within the landscape islands in the parking lot for this site. The Subcommittee members were supportive of allowing shrubs to replace trees in the parking area in light of security concerns as presented by Microsoft's representative, waiving required landscape islands in the parking areas, and allowing partial use of gravel or paving near utilities for maintenance purposes while requiring the incorporation of vegetation to comply with code for the bulk of the landscaped areas adjacent to parking lots and any area visible from the perimeter of the site.
- *Vesting of Entitlement*: Per City Code, entitlement (approval to construct or implement) shall remain in effect so long as substantial site work has progressed beyond grading and completion of structural foundations and twenty-five percent (25%) of the total building area has occurred above grade within twenty-four (24) months of the effective date of the approval, unless a greater time period is authorized at time of the original entitlement, or by approval of an extension of the original entitlement. It is the responsibility of the developer to be aware of this deadline and request an extension of the approval prior to the expiration date.

Outstanding Issues: There are no outstanding issues.

Planning and Zoning Commission Action:

Date: December 27, 2023

Vote:

Recommendation:

Recommendation: Approve the Major Modification to Site Plan request, subject to the applicant meeting all City Code requirements, and the following conditions of approval:

1. The City Council agreeing to not require landscape islands in the parking lot as required by City Code due to security concerns with trees in the parking lot. Required parking lot trees shall be added to the buffer plantings.
2. The City Council allowing shrubs in lieu of trees to be planted within parking lot islands due to security concerns with trees in the parking lot. Required parking lot trees shall be added to the buffer plantings.
3. The City Council allowing gravel to be implemented around industrial buildings on the site to allow access to utility structures for maintenance purposes.

Lead Staff Member: Brian Portz

Approval Meeting Dates:

| | |
|--------------------------------|-------------------|
| Planning and Zoning Commission | December 27, 2023 |
| City Council | |

Staff Report Reviews:

| | | |
|------------------------------|--|---|
| Planning & Zoning Commission | <input checked="" type="checkbox"/> Development Coordinator (or) <input checked="" type="checkbox"/> Director | <input checked="" type="checkbox"/> Legal Department |
| City Council | <input type="checkbox"/> Director <input type="checkbox"/> Appropriations/Finance | <input type="checkbox"/> Legal Department <input type="checkbox"/> Agenda Acceptance |

Publications (if applicable)

| | |
|---------------------------|---------------------------------------|
| Published In: | Des Moines Register Community Section |
| Date(s) Published | n/a |
| Date(s) of Mailed Notices | n/a |

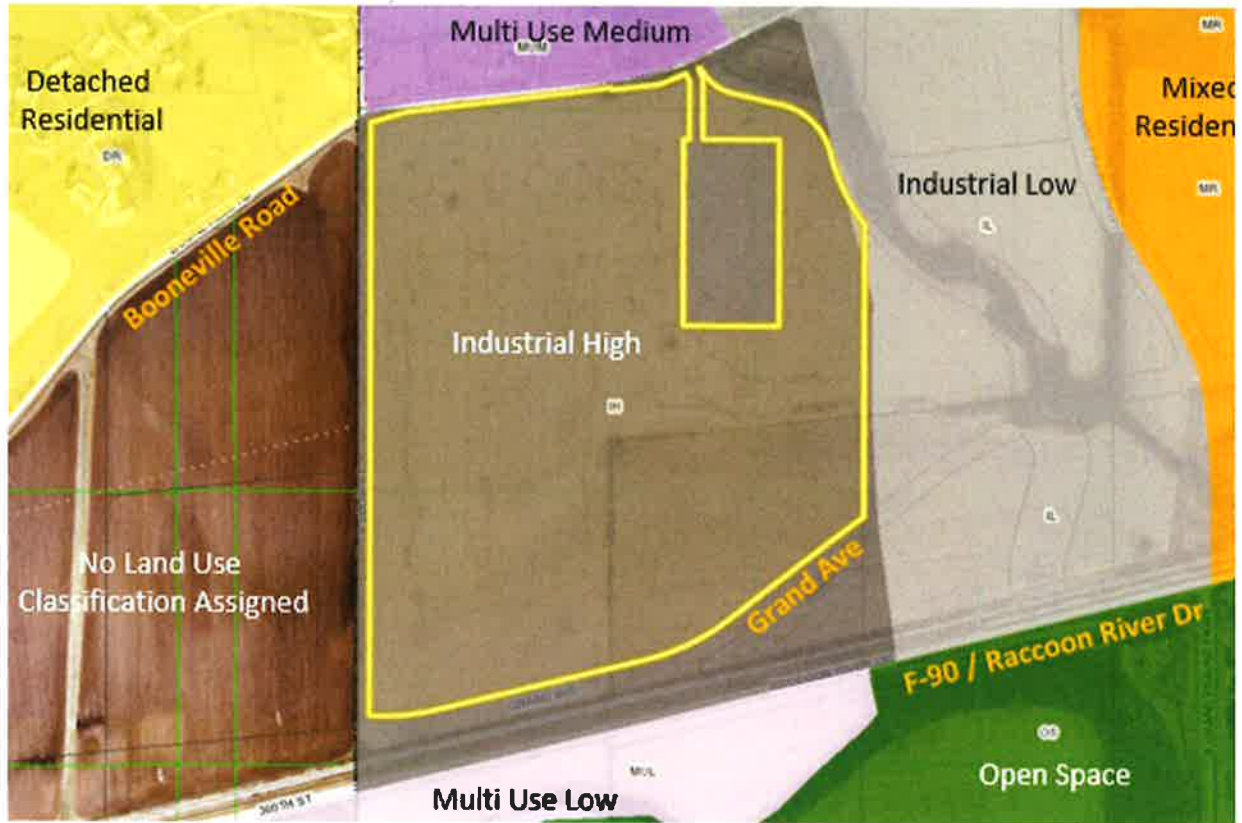
Council Subcommittee Review (if applicable)

| | |
|----------------|--|
| Subcommittee | Development & Planning |
| Date Reviewed | December 19, 2022 & November 20, 2023 |
| Recommendation | <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> Split |

Location Map



Vicinity Map – Land Uses



PLANS INCLUDED ARE FOR ILLUSTRATIVE PURPOSES ONLY – APPROVED PLANS ON FILE WITH THE CITY



1 ARCHITECTURAL EXTERIOR ELEVATION - EAST
1" = 10'-0"



2 ARCHITECTURAL EXTERIOR ELEVATION - WEST
1" = 10'-0"

9400 Ward Parkway
Kansas City, MO 64114
www.burnsmcd.com



DSM42
DATA CENTER

11100 BOONEVILLE ROAD
WEST DES MOINES, IA

| | |
|-------------|-------------------|
| Project No. | 11100 |
| Client | Microsoft |
| Architect | Burns & McDonnell |
| Scale | As Shown |
| Sheet No. | DSM42-1 |
| Date | 11-10-2023 |

| MICROSOFT | |
|-----------------------------|--------------------------------|
| Project Manager | JOHN KOTZKE |
| Lead Architect | SCOTT WILSON |
| Architectural Designer | LISA GALLAGHER / DAVID SWANSON |
| Interior Designer | STEVE THOMAS |
| MEP Engineer | BILL GILBERTSON |
| Structural Engineer | ANNA KATHARAKI |
| Electrical Engineer | SCOTT WILSON |
| Telecommunications Engineer | DAVE BURTON |
| Security Engineer | DANIEL PURMAN |

| DESIGN TEAM | |
|-----------------------------|-------------------------------------|
| Project Manager | SCOTT WILSON / CHIEF DESIGN ADVISOR |
| Architectural Lead | NEAL CLEMENTS / BRAD |
| Architectural Designer | JEFFREY WILSON / BRAD |
| Architectural Designer | DANIEL GARCIA / BRAD |
| Architectural Designer | WILL CLAY / BRAD |
| MEP Engineer | JEFFREY WILSON / BRAD |
| Structural Engineer | ANNA KATHARAKI / BRAD |
| Telecommunications Engineer | MARK ANDERSON / BRAD |
| Security Engineer | DAVID BURTON / BRAD |

| Revisions | |
|-----------|-------------|
| No. | Description |
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Registration

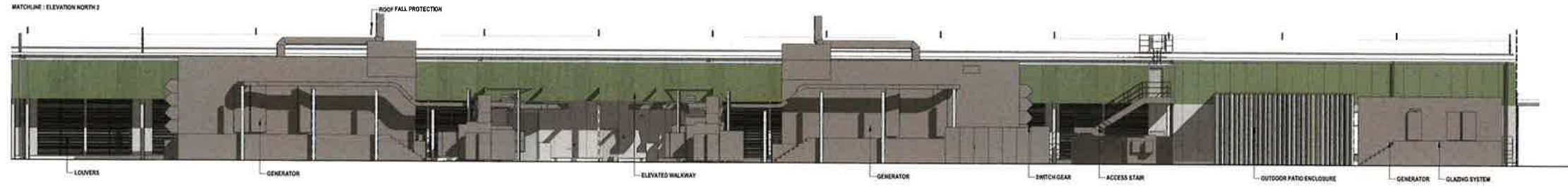
 11-10-2023
 Sector Key Plan

Bar Code
 CONFIDENTIAL - DO NOT DISCLOSE. This document is exempt from public disclosure under the Public Disclosure Act and Uniform Trade Secrets Act.

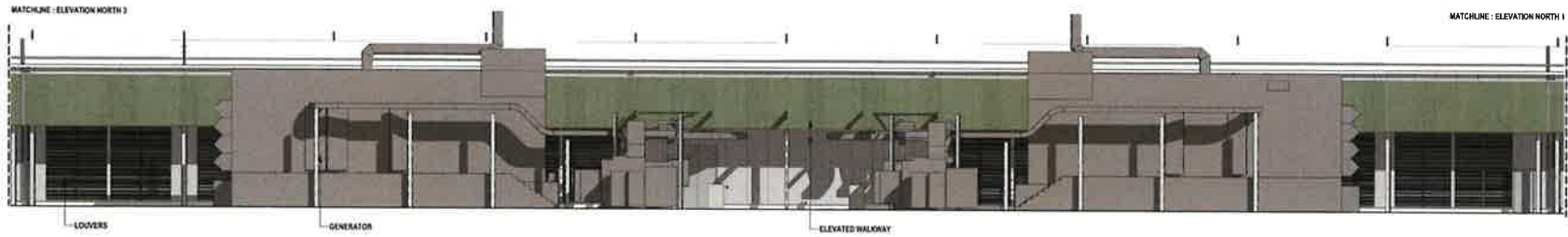
Package
FULL BUILDOUT
 Sheet Title Number

ARCHITECTURAL
 RENDERED
 EXTERIOR
 ELEVATIONS

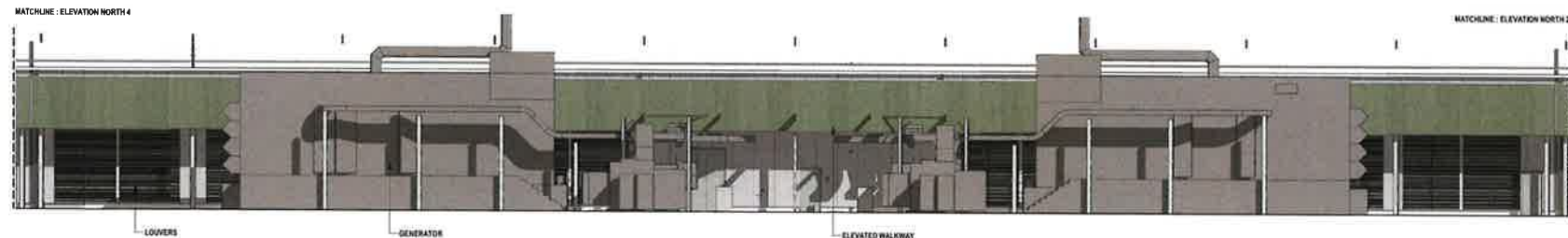
DSM42-1



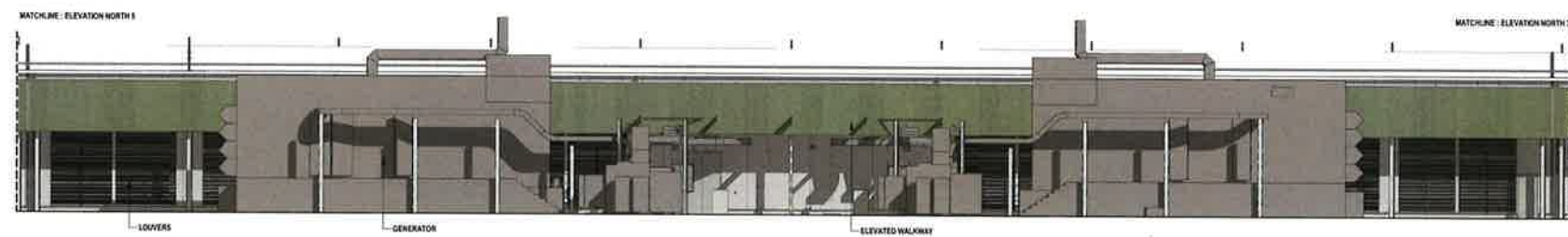
1 ARCHITECTURAL EXTERIOR ELEVATIONS - NORTH 1
1" = 10'-0"



2 ARCHITECTURAL EXTERIOR ELEVATIONS - NORTH 2
1" = 10'-0"



3 ARCHITECTURAL EXTERIOR ELEVATIONS - NORTH 3
1" = 10'-0"



4 ARCHITECTURAL EXTERIOR ELEVATIONS - NORTH 4
1" = 10'-0"



5 ARCHITECTURAL EXTERIOR ELEVATIONS - NORTH 5
1" = 10'-0"

**BURNS
MEDONNELL**
9400 Ward Parkway
Kansas City, MO 64114
www.burnsmcd.com

Microsoft
DSM42
DATA CENTER
11100 BOONEVILLE ROAD
WEST DES MOINES, IA

| | |
|------------------|------------|
| Design | SA |
| Drawn | MS/MS |
| Checked | MS/MS |
| Date | 08/08/2023 |
| MSD Project No. | P 1020 |
| U.S. Project No. | P 2000 |

| MICROSOFT | |
|--|--------------------------------|
| Project Manager | JOHN BUCHHE |
| Architect | NEAL A. CLEMENTS |
| Architectural Designer | LOUIS GALANTY / DAVID SUBANSON |
| Interior Designer | STEVE HUNTER |
| Building Information Systems (BIM) Manager | BOB GARDNER |
| Electrical Engineer | ANGELA KRISHNAN |
| Electrical Power Management Engineer (EPMS) / Systems Engineer | EDWARD PRINCE |
| Telecommunications Engineer | MARK W. BROWN |
| Security Design Manager | DANIEL PUTMAN |

| DESIGN TEAM | |
|--|------------------|
| Principal Architect | NEAL A. CLEMENTS |
| Senior Architect | DAVID SUBANSON |
| Architectural Designer | LOUIS GALANTY |
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| Security Design Manager | DANIEL PUTMAN |

| Revisions | | |
|-----------|------|-------------|
| No. | Date | Description |
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Registration

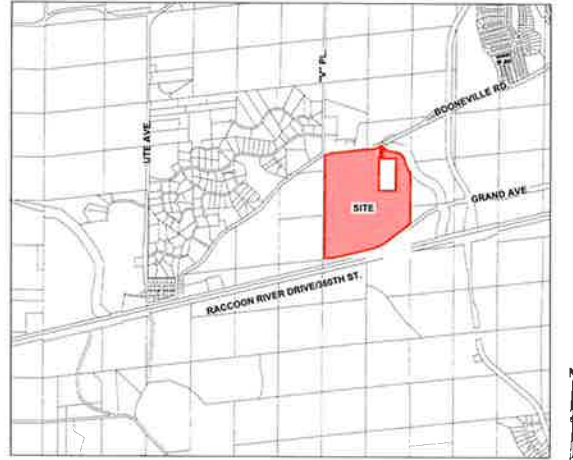
Neal A. Clements
 11-10-2023
 Sector Key Plan

Bar Code
 CONFIDENTIAL - DO NOT DISCLOSE. This document is exempt from public disclosure under the Public Disclosure Act and Uniform Trade Secrets Act.
 Project:
FULL BUILDOUT
 Sheet Title/Number

**ARCHITECTURAL
RENDERED
EXTERIOR
ELEVATIONS**

DSM42-3

VICINITY MAP
NOT TO SCALE



**DSM42 DATA CENTER
SITE PLAN**

OWNER/APPLICANT

MICROSOFT CORPORATION
ONE MICROSOFT WAY
REDMOND, WA 98052

CONSULTANTS

CIVIL:
CIVIL DESIGN ADVANTAGE, LLC
4121 NW URBANDALE DRIVE
URBANDALE, IA 50322
PH: (515) 369-4400
CONTACT: RYAN HARDISTY

NAVIX ENGINEERING, INC.
11234 SE 6TH STREET, SUITE 150
BELLEVUE, WA 98004
PH: (425) 458-7900
CONTACT: PAUL MANZER

GEOTECHNICAL

TERRACON CONSULTANTS INC.
1523 S BELL AVENUE, SUITE 104
AMES, IOWA 50010
PH: (515) 232-0950
CONTACT: CASH STURGEON

GOVERNING AGENCIES

REVIEW AGENCY:

CITY OF WEST DES MOINES (WDM)
4200 WILLS CIVIC PARKWAY, SUITE 2D
WEST DES MOINES, IA 50265
PH: (515) 222-3620
CONTACT: LYNNE TWEEDT

FIRE DISTRICT:

CITY OF WEST DES MOINES (WDM)
3421 ASHWORTH ROAD
WEST DES MOINES, IA 50265
PH: (515) 222-3420
CONTACT: MIKE WATSELL

UTILITIES

WATER:

WEST DES MOINES WATER WORKS (WDMWW)
1505 RAILROAD AVENUE
WEST DES MOINES, IA 50265
PH: (515) 222-3510
CONTACT: WILLIAM MABUCE, P.E.

SANITARY SEWER:

CITY OF WEST DES MOINES (WDM)
560 SOUTH 16TH STREET
WEST DES MOINES, IA 50265
PH: (515) 222-3480
CONTACT: CLYD CARPENTER

BENCHMARKS

WDM_BM_084
CITY OF WDM STANDARD BENCHMARK LOCATED ALONG 9100 BLOCK OF RACCOON RIVER DRIVE, INTERSECTION OF RACCOON RIVER DRIVE AND WINDSOR COURT, 3 FEET NORTH OF SOUTH FENCE, 25 FEET WEST OF FENCE CORNER, STA 1124 ± STAMPED IN PCC PAVEMENT ON THE SOUTH SIDE.
ELEVATION = 841.07 (DATUM: NAVD 88, FEET)

WDM_BM_130
CITY OF WDM STANDARD BENCHMARK LOCATED AT SOUTHWEST CORNER OF BOONEVILLE ROAD AND "V" PLACE, 3 FEET NORTH OF SOUTH RIGHT OF WAY FENCE ON BOONEVILLE ROAD AND IN LINE WITH EAST EDGE OF "V" PLACE, WEST SIDE OF FIELD ENTRANCE.
ELEVATION = 873.86 (DATUM: NAVD 88, FEET)

LEGAL DESCRIPTION

LOT 1, GINGER WEST PLAT 1, AN OFFICIAL PLAT IN THE CITY OF WEST DES MOINES, DALLAS COUNTY, IOWA, AND CONTAINING 153.06 ACRES (8,667,355 S.F.).

NOTES

- SITE WORK FOR THIS PROJECT SHALL MEET OR EXCEED THE PROJECT SPECIFICATIONS AND THE CURRENT CITY OF WEST DES MOINES STANDARD SPECIFICATIONS FOR SUBDIVISIONS AND ADDENDUMS.
- THE DESIGN SHOWN IS BASED UPON THE ENGINEER'S UNDERSTANDING OF THE EXISTING CONDITIONS. THIS PLAN DOES NOT REPRESENT A DETAILED FIELD SURVEY. THE CONTRACTOR IS RESPONSIBLE FOR VERIFYING FIELD CONDITIONS PRIOR TO BIDDING. THE PROPOSED SITEWORK IMPROVEMENTS IF CONFLICTS ARE DISCOVERED, THE CONTRACTOR SHALL NOTIFY THE OWNER PRIOR TO INSTALLATION OF ANY PORTION OF THE SITEWORK WHICH WOULD BE AFFECTED. IF CONTRACTOR DOES NOT ACCEPT EXISTING SURVEY, INCLUDING TOPOGRAPHY AS SHOWN ON THE PLANS, WITHOUT EXCEPTION, HE SHALL HAVE MADE, AT HIS/HER OWN EXPENSE, A TOPOGRAPHIC SURVEY BY A REGISTERED LAND SURVEYOR AND SUBMIT IT TO THE OWNER FOR REVIEW.
- CAUTION - UTILITIES TO CONTRACTOR:** THE CONTRACTOR IS SPECIFICALLY CAUTIONED THAT THE LOCATION OF EXISTING UTILITIES AS SHOWN ON THESE PLANS IS BASED ON RECORDS OF THE VARIOUS UTILITY COMPANIES AND, WHERE POSSIBLE, MEASUREMENTS TAKEN IN THE FIELD. THE INFORMATION IS NOT TO BE RELIED ON AS BEING EXACT OR COMPLETE. THE CONTRACTOR MUST CALL THE APPROPRIATE UTILITY COMPANY AT LEAST 48 HOURS BEFORE ANY EXCAVATION TO REQUEST FIELD LOCATION OF UTILITIES. IT SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR TO RELOCATE ALL EXISTING UTILITIES WHICH CONFLICT WITH THE PROPOSED IMPROVEMENTS SHOWN ON THESE PLANS.
- ALL CONSTRUCTION WITHIN PUBLIC ROW/EASEMENTS, AND/OR ANY CONNECTION TO PUBLIC SEWERS AND STREETS SHALL COMPLY WITH THE WEST DES MOINES STANDARD CONSTRUCTION SPECIFICATIONS FOR SUBDIVISIONS, DSM METRO DESIGN STANDARDS, AND WDM ADDENDUMS.
- AT LEAST ONE WEEK PRIOR TO ANY CONSTRUCTION WITHIN PUBLIC ROW/EASEMENTS AND/OR ANY CONNECTION TO PUBLIC SEWERS AND STREETS, THE CONTRACTOR SHALL CONTACT THE WDM ENGINEERING SERVICES 315-222-3475 TO SCHEDULE ANY REQUIRED INSPECTIONS. IT IS IMPORTANT TO NOTE CITY APPROVAL OF THIS PLAN IS SUBJECT TO THE APPLICANT OBTAINING ALL NECESSARY EASEMENTS/AGREEMENTS AND APPLICABLE PERMITS.
- ALL SECURITY GATES SHALL HAVE THEIR LOCKS AND SEQUENCE OF EVENTS TO OPEN THEM APPROVED BY THE FIRE MARSHAL PRIOR TO INSTALLATION.

CITY OF WEST DES MOINES DATUM CONVERSION

PLAN DATUM CONVERSION FROM THE CITY OF WEST DES MOINES DATUM TO NAVD88= PLAN ELEVATION + 774.01 FEET

SITE DATA

| COMPREHENSIVE PLAN | LIGHT INDUSTRIAL |
|--------------------------------|-------------------------------------|
| ZONING | LIGHT INDUSTRIAL |
| SURROUNDING LAND USES: | |
| NORTH: EXISTING LAND USE | RESIDENTIAL AND AGRICULTURE |
| EXISTING ZONING | UNZONED |
| COMPREHENSIVE PLAN DESIGNATION | OFFICE/BUSINESS PARK |
| EAST: EXISTING LAND USE | AGRICULTURE |
| EXISTING ZONING | UNZONED |
| COMPREHENSIVE PLAN DESIGNATION | BUSINESS PARK |
| SOUTH: EXISTING LAND USE | AGRICULTURE |
| EXISTING ZONING | UNZONED |
| COMPREHENSIVE PLAN DESIGNATION | MED. DENSITY RESIDENTIAL/OPEN SPACE |
| WEST: EXISTING LAND USE | AGRICULTURE |
| EXISTING ZONING | UNZONED |
| COMPREHENSIVE PLAN DESIGNATION | SINGLE FAMILY RESIDENTIAL |

PARKING SUMMARY

MICROSOFT REQUIRED PARKING = 1.2 STALLS PER MW PLUS 1 SECURITY VEHICLE STALL
48 MW BUILDING X 1.2 STALL/MW + 1 SECURITY STALL = 59 STALLS

DSM42:

TOTAL REQUIRED = 59 SPACES
TOTAL PROVIDED = 59 SPACES

LEED CREDIT REDUCED PARKING FOOTPRINT:

ITE TRIP GENERATION MANUAL DATA CENTER REQUIRED PARKING = 0.99 STALLS PER 1000 SF
245,000 SF BUILDING X 0.99 STALLS/1000 SF = 243 STALLS REQUIRED

PARKING REDUCTION = 75.7%

SITE AREA DATA

| LOT 1: | EXISTING: | IMPERVIOUS | 50.15 ACRES (2,184,534 SF) (32.75%) |
|--------|--|--------------------------------------|-------------------------------------|
| | PERVIOUS | 102.91 ACRES (4,482,821 SF) (67.24%) | |
| | PROPOSED: <th>IMPERVIOUS</th> <th>63.22 ACRES (2,753,837 SF) (41.30%)</th> | IMPERVIOUS | 63.22 ACRES (2,753,837 SF) (41.30%) |
| | PERVIOUS | 89.84 ACRES (3,913,518 SF) (58.70%) | |
| | TOTAL LAND AREA | 153.06 ACRES (6,667,355 SF) | |
| | OPEN SPACE AREA: REQUIRED | 30.61 ACRES (1,333,459 SF) (20.00%) | |
| | PROVIDED | 89.84 ACRES (3,913,518 SF) (58.70%) | |

UTILITY WARNING

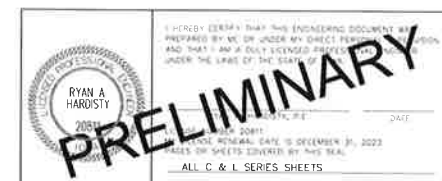
THE UTILITIES SHOWN HAVE BEEN LOCATED FROM FIELD SURVEY AND RECORDS OBTAINED BY THIS SURVEYOR. THE SURVEYOR MAKES NO GUARANTEE THAT THE UTILITIES SHOWN COMPRISE ALL THE UTILITIES IN THE AREA, EITHER IN SERVICE OR ABANDONED. THE SURVEYOR FURTHER DOES NOT WARRANT THAT THE UTILITIES SHOWN ARE IN THE EXACT LOCATION SHOWN.

SHEET INDEX

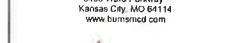
| SHEET NUMBER | SHEET TITLE |
|----------------|---|
| DSM42-C-A-01 | CIVIL COVER SHEET |
| DSM42-C-B-01 | CIVIL BASE CONDITIONS MAP |
| DSM42-C-B-001 | CIVIL DEMOLITION PLAN |
| DSM42-C-B-002 | CIVIL DEMOLITION PLAN |
| DSM42-C-B-003 | CIVIL DEMOLITION PLAN |
| DSM42-C-B1-01 | CIVIL EROSION & SEDIMENT CONTROL PLAN OVERALL |
| DSM42-C-B1-001 | CIVIL EROSION & SEDIMENT CONTROL PLAN |
| DSM42-C-B1-002 | CIVIL EROSION & SEDIMENT CONTROL PLAN |
| DSM42-C-B1-003 | CIVIL EROSION & SEDIMENT CONTROL PLAN |
| DSM42-C-B1-004 | CIVIL EROSION & SEDIMENT CONTROL PLAN |
| DSM42-C-B1-005 | CIVIL EROSION & SEDIMENT CONTROL PLAN |
| DSM42-C-B1-006 | CIVIL EROSION & SEDIMENT CONTROL PLAN |
| DSM42-C-B1-007 | CIVIL EROSION & SEDIMENT CONTROL PLAN |
| DSM42-C-B1-008 | CIVIL EROSION & SEDIMENT CONTROL PLAN |
| DSM42-C-B1-009 | CIVIL EROSION & SEDIMENT CONTROL PLAN |
| DSM42-C-B1-010 | CIVIL EROSION & SEDIMENT CONTROL PLAN |
| DSM42-C-B1-011 | CIVIL EROSION & SEDIMENT CONTROL PLAN |
| DSM42-C-B1-012 | CIVIL EROSION & SEDIMENT CONTROL PLAN |
| DSM42-C-B1-013 | CIVIL EROSION & SEDIMENT CONTROL PLAN |
| DSM42-C-B1-014 | CIVIL EROSION & SEDIMENT CONTROL PLAN |
| DSM42-C-B1-015 | CIVIL EROSION & SEDIMENT CONTROL PLAN |
| DSM42-C-C1-01 | CIVIL SITE IMPROVEMENTS PLAN OVERALL |
| DSM42-C-C1-001 | CIVIL SITE IMPROVEMENTS PLAN |
| DSM42-C-C1-002 | CIVIL SITE IMPROVEMENTS PLAN |
| DSM42-C-C1-003 | CIVIL SITE IMPROVEMENTS PLAN |
| DSM42-C-C1-004 | CIVIL SITE IMPROVEMENTS PLAN |
| DSM42-C-C1-005 | CIVIL SITE DIRECTIONAL SIGNAGE PLAN & DETAILS |
| DSM42-C-C2-01 | CIVIL HORIZONTAL CONTROL PLAN OVERALL |
| DSM42-C-C2-001 | CIVIL HORIZONTAL CONTROL PLAN |
| DSM42-C-C2-002 | CIVIL HORIZONTAL CONTROL PLAN |
| DSM42-C-C2-003 | CIVIL HORIZONTAL CONTROL PLAN |
| DSM42-C-D1-01 | CIVIL UTILITY PLAN OVERALL |
| DSM42-C-D2-01 | CIVIL SITE GRADING & DRAINAGE PLAN OVERALL |
| DSM42-C-D2-001 | CIVIL SITE GRADING & DRAINAGE PLAN |
| DSM42-C-D2-002 | CIVIL SITE GRADING & DRAINAGE PLAN |
| DSM42-C-D2-003 | CIVIL SITE GRADING & DRAINAGE PLAN |
| DSM42-C-D3-01 | CIVIL SITE FINISHED GRADING PLAN OVERALL |
| DSM42-C-D3-001 | CIVIL SITE FINISHED GRADING PLAN |
| DSM42-C-D3-002 | CIVIL SITE FINISHED GRADING PLAN |
| DSM42-C-D3-003 | CIVIL SITE FINISHED GRADING PLAN |
| DSM42-C-E1-01 | CIVIL WATER PLAN OVERALL |
| DSM42-C-E1-001 | CIVIL WATER PLAN |
| DSM42-C-E1-002 | CIVIL WATER PLAN |
| DSM42-C-E1-003 | CIVIL WATER PLAN |
| DSM42-C-E2-01 | CIVIL WATER PLAN & PROFILE |
| DSM42-C-E2-02 | CIVIL WATER PLAN & PROFILE |
| DSM42-C-E2-03 | CIVIL WATER PLAN & PROFILE |
| DSM42-C-E2-04 | CIVIL WATER PLAN & PROFILE |
| DSM42-C-E2-05 | CIVIL WATER PLAN & PROFILE |
| DSM42-C-E2-06 | CIVIL WATER PLAN & PROFILE |
| DSM42-C-E2-07 | CIVIL WATER PLAN & PROFILE |
| DSM42-C-E3-01 | CIVIL CLEAR WATER DISCHARGE & SANITARY SEWER PLAN OVERALL |
| DSM42-C-E3-001 | CIVIL CLEAR WATER DISCHARGE & SANITARY SEWER PLAN |
| DSM42-C-E3-002 | CIVIL CLEAR WATER DISCHARGE & SANITARY SEWER PLAN |
| DSM42-C-E3-003 | CIVIL CLEAR WATER DISCHARGE & SANITARY SEWER PLAN |
| DSM42-C-E3-004 | CIVIL CLEAR WATER DISCHARGE & SANITARY SEWER PLAN |
| DSM42-C-E3-005 | CIVIL CLEAR WATER DISCHARGE & SANITARY SEWER PLAN |
| DSM42-C-E3-006 | CIVIL CLEAR WATER DISCHARGE & SANITARY SEWER PLAN |
| DSM42-C-E3-007 | CIVIL CLEAR WATER DISCHARGE & SANITARY SEWER PLAN |
| DSM42-C-F-01 | CIVIL SITE DETAILS |
| DSM42-C-F-02 | CIVIL SITE DETAILS |
| DSM42-C-F-03 | CIVIL SITE DETAILS |
| DSM42-C-F-04 | CIVIL SEWER DETAILS |
| DSM42-C-F-05 | CIVIL SEWER DETAILS |
| DSM42-C-F-06 | CIVIL SEWER DETAILS |
| DSM42-C-F-07 | CIVIL WATER DETAILS |
| DSM42-C-F-08 | CIVIL WATER DETAILS |
| DSM42-L-A1-01 | LANDSCAPE PLAN OVERALL |
| DSM42-L-A1-001 | LANDSCAPE PLAN |
| DSM42-L-A1-005 | LANDSCAPE PLAN |



1-800-292-8989
www.iowaonecall.com

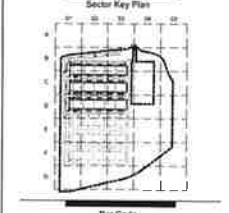


PRELIMINARY



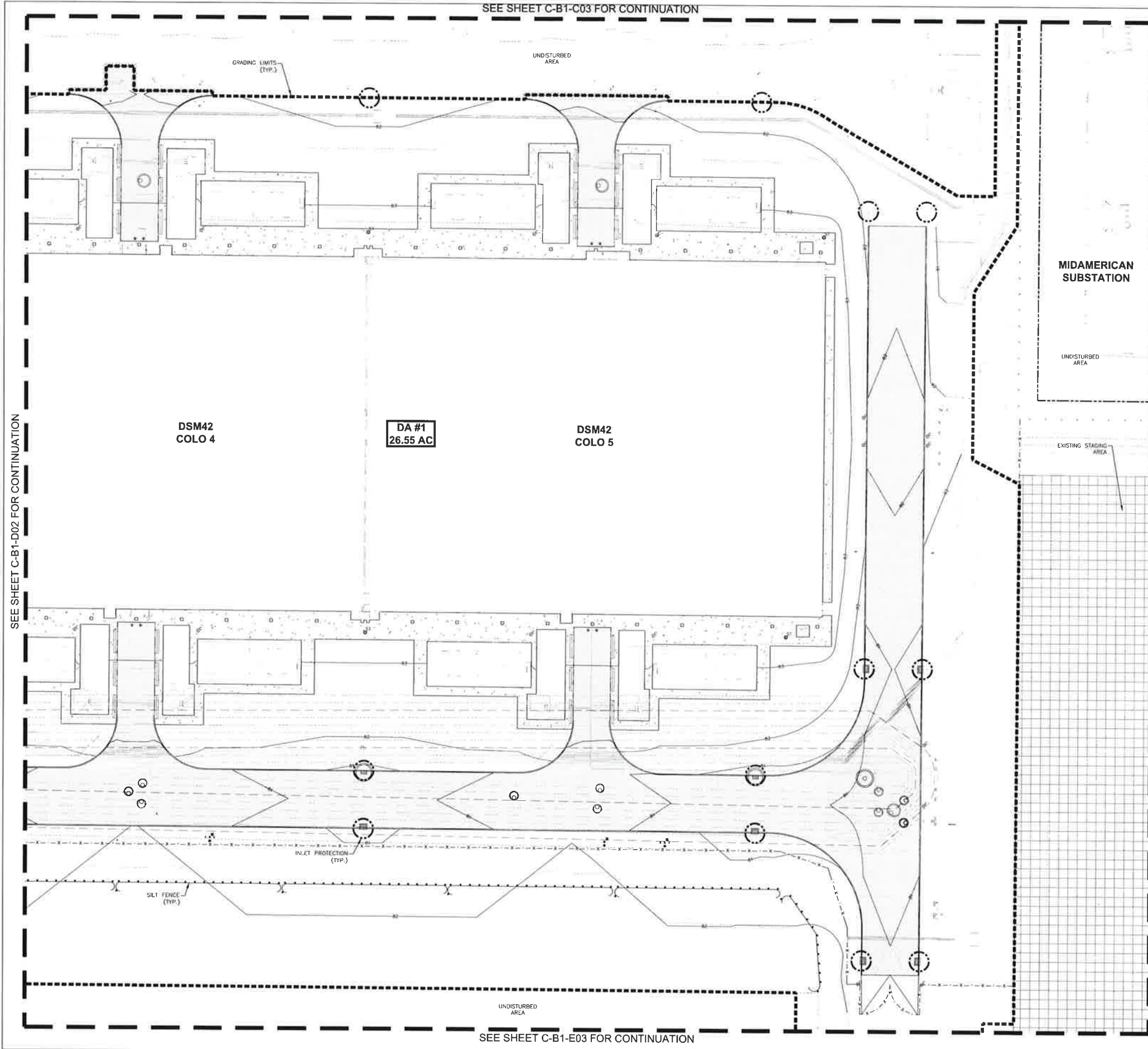
Microsoft
DSM 42
DATA CENTER
11100 Booneville Road
West Des Moines, Iowa

| NO. | DATE | REVISIONS |
|-----|---------|------------------|
| 1 | 2/15/23 | ISSUE FOR PERMIT |
| 2 | 2/20/23 | ISSUE FOR PERMIT |
| 3 | 2/20/23 | ISSUE FOR PERMIT |



Bar Code

Package
FULL BUILDOUT
Sheet Title/Number
CIVIL
COVER SHEET
DSM42-C-A-01



SEE SHEET C-B1-C03 FOR CONTINUATION

SEE SHEET C-B1-E03 FOR CONTINUATION

SEE SHEET C-B1-D02 FOR CONTINUATION

SEE SHEET C-B1-D04 FOR CONTINUATION

LEGEND

- DRAINAGE ARROW
- GRADING LIMITS
- FILTER SOCK
- SILT FENCE
- INLET PROTECTION
- PORTABLE RESTROOM
- TEMPORARY STANDPIPE
- CONCRETE WASHOUT PIT
- PERMANENT SEEDING
- TEMPORARY SEEDING
- UNDISTURBED AREA
- RP-RAP
- POTENTIAL TOPSOIL STOCKPILE LOCATION
- CRUSHED STONE SURFACING
- STAGING AREA
- P.C.C. PAVEMENT, 8", HEAVY DUTY
- P.C.C. PAVEMENT, 6", MEDIUM DUTY
- P.C.C. SIDEWALK, 4"
- P.C.C. SIDEWALK, 6"
- TEMPORARY SEDIMENT BASIN

STABILIZATION QUANTITIES

| ITEM NO. | ITEM | UNIT | TOTAL |
|----------|------------------------------------|------|-------|
| 1 | SILT FENCE | LF | 7,970 |
| 2 | SEEDING, FERTILIZING, AND MULCHING | AC | 30.5 |
| 3 | MULTI PROTECTION SERVICES | EA | 38 |
| 4 | CONCRETE WASHOUT PIT | EA | 1 |

DISCHARGE POINT SUMMARY

DISCHARGE POINT #1 TO LITTLE CREEK CREEK, 1870 FT

TOTAL AREA EXPOSED TO DISCHARGE POINT: 26.55 ACRES

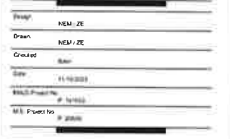
STORAGE VOLUME REQUIRED (4' OF ACRES*3600 CU FT): 95,580 CU FT

VOLUME IN SILT FENCE (7,970 LF @ 4.5 CU FT/LF OF FENCE): 35,865 CU FT

VOLUME IN EXISTING TSB #1: 1,200,773 CU FT

TOTAL VOLUME PROVIDED: 1,241,558 CU FT

- ### NOTES:
- CONTRACTOR SHALL ENSURE STORM WATER DISCHARGE ASSOCIATED WITH CONSTRUCTION ACTIVITIES SHALL COMPLY WITH THE IOWA DEPARTMENT OF NATURAL RESOURCES NATIONAL POLLUTANT DISCHARGE ELIMINATION SYSTEM (NPDES) GENERAL PERMIT NO. 2
 - WATER TAKEN FROM ANY DEWATERING ACTIVITIES SHALL BE DISCHARGED INTO A TEMPORARY SEDIMENT BASIN OR SHALL RUN THROUGH A DEWATERING SILT SACK PRIOR TO LEAVING THE SITE MEASURES ARE ALSO TO BE TAKEN TO PREVENT SCOUR EROSION AT DEWATERING DISCHARGE POINT
 - DISTURBED AREAS SHALL BE TEMPORARILY SEEDED OR MULCHED PRIOR TO THE SITE SHUTTING DOWN FOR WINTER CONDITIONS
 - STORM SEWERS AND DRAINAGE WAYS SHALL BE PROTECTED FROM CONCRETE SLURRY PRODUCED BY SAWCUTTING AND CONCRETE GRINDING
 - STABILIZATION QUANTITIES ARE FOR REFERENCE ONLY AND ARE NOT FOR CONSTRUCTION TAKE-OFF
 - TEMPORARY EROSION AND SEDIMENT CONTROL MEASURES AS SHOWN SERVE AS THE INTENDED BASIS FOR STORMWATER POLLUTION PREVENTION PLANNING AS GRADING AND SITE WORK PROGRESS IS MADE AND WEATHER CONDITIONS CHANGE, THE CONTRACTOR IS EXPECTED TO MODIFY THE PROJECT STORMWATER POLLUTION PREVENTION PLAN (SWPPP) MATERIAL QUANTITIES TO ADDRESS CHANGES IN THE EROSION AND SEDIMENT CONTROL PLAN NEEDS SHALL BE CONSIDERED IN THE CONTRACTOR BID



MICROSOFT

Project Manager: JON NYDRE

Design Team:

- LESA GALLANT / DAVID BAUMANN
- STEFANIE GARCIA / BRAND
- WILL CLAY / BRAND
- KEVIN WILSON / BRAND
- MICHAEL BARSBAT / PATRICIA

DESIGN TEAM

Civil Engineering Lead: E.A. CIVIL DESIGN ADVANTAGE

Structural Engineering Lead: BRYAN JEMAL / BRAND

Architectural Lead: KEVIN CLEMENTS / BRAND

Mechanical Engineering Lead: JEFFREY WILSON / BRAND

Planting Engineering Lead: STEPHEN GARCIA / BRAND

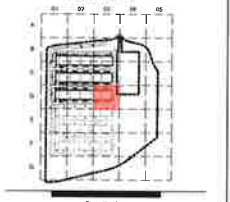
PEA Professional Engineering Lead: WILL CLAY / BRAND

PEA Engineering Lead: KEVIN WILSON / BRAND

Stormwater Engineering Lead: MICHAEL BARSBAT / PATRICIA

Revisions

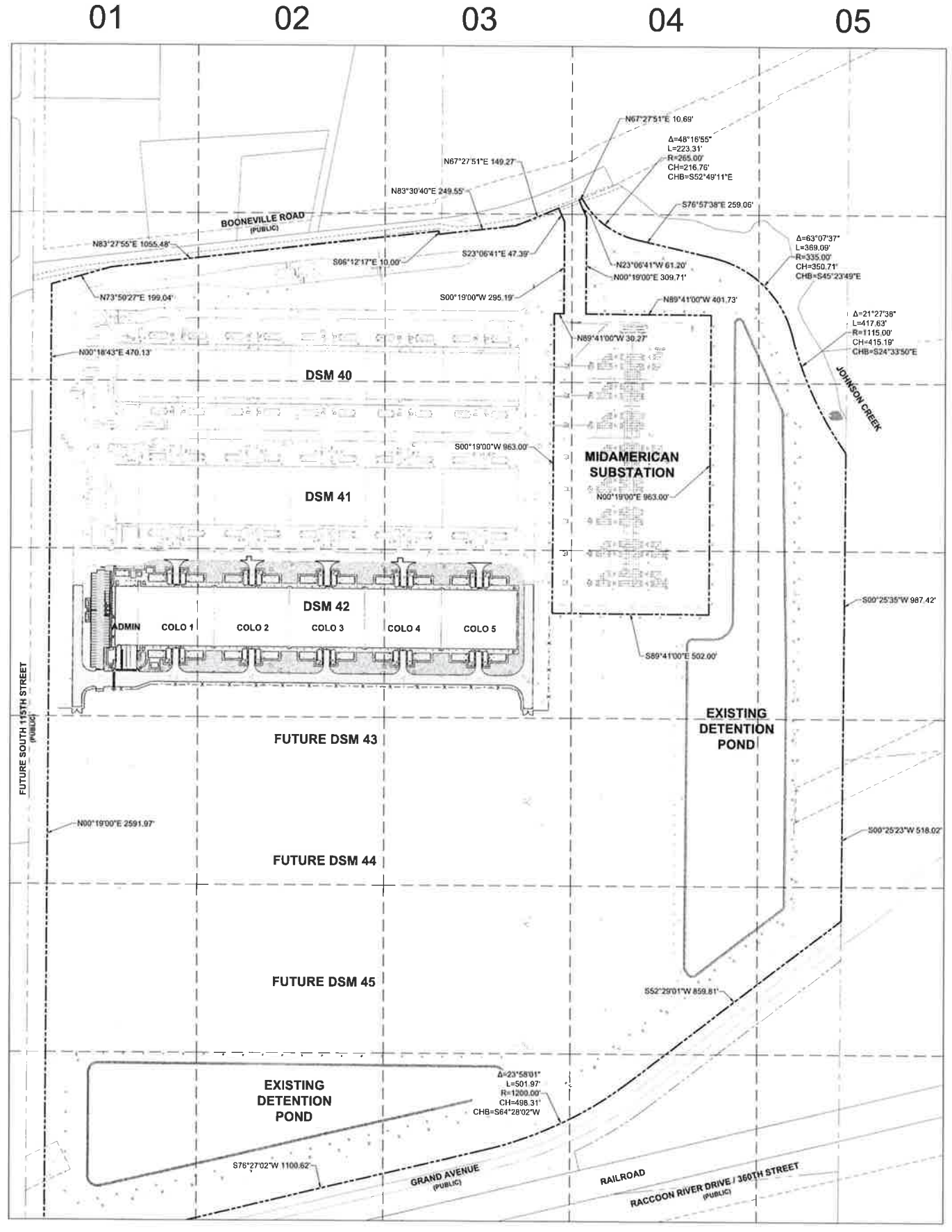
| No. | Date | Director |
|-----|------------|--------------------|
| 1 | 11/01/2023 | SILT FENCE PACKAGE |
| 2 | 11/05/2023 | CONCRETE PACKAGE |
| 3 | 11/05/2023 | SEEDING PACKAGE |



Package: FULL BUILDOUT

Sheet Title/Number: CIVIL EROSION AND SEDIMENT CONTROL PLAN DSM42-C-B1-D03

DSM42-C-B1-D03



GENERAL NOTES

1. ALL WORK SHALL COMPLY WITH THE MOST RECENT ADDITION OF THE PUBLIC RIGHT-OF-WAY ACCESSIBILITY GUIDELINES (PROWAG).
2. ALL WORK SHALL BE IN ACCORDANCE WITH OSHA CODES AND STANDARDS. NOTHING INDICATED ON THE DRAWINGS SHALL RELIEVE THE CONTRACTOR FROM COMPLYING WITH ANY APPROPRIATE SAFETY REGULATIONS.
3. PRIOR TO ANY WORK AT THE SITE, CONTRACTOR SHALL EXAMINE ANY APPLICABLE DRAWINGS AVAILABLE FROM THE OWNER, ENGINEER, AND/OR ARCHITECT, AND CONSULT WITH OWNER'S PERSONNEL AND UTILITY COMPANY REPRESENTATIVES. NO COMPENSATION WILL BE ALLOWED FOR DAMAGE FROM FAILURE TO COMPLY WITH THIS REQUIREMENT.
4. ONE WEEK PRIOR TO CONSTRUCTION WITHIN CITY R.O.W. OR ANY CONNECTION TO PUBLIC SEWERS CONTRACTOR SHALL NOTIFY THE CITY'S CONSTRUCTION DIVISION.
5. ALL CONSTRUCTION WITHIN PUBLIC R.O.W. EASEMENTS, AND/OR ANY CONNECTION TO PUBLIC SEWERS AND STREETS, SHALL COMPLY WITH THE CITY'S STANDARDS.
6. CONTRACTOR TO VERIFY BUILDING DIMENSIONS WITH ARCHITECTURAL PLANS.
7. PLACE 3/4 INCH EXPANSION JOINT BETWEEN ALL P.C.C. PAVEMENT/SIDEWALKS AND BUILDING. PLACE 1/2 INCH EXPANSION JOINT BETWEEN SIDEWALKS AND P.C.C. PAVEMENT.
8. REMOVE ALL DEBRIS SPILLED INTO R.O.W. AT THE END OF EACH WORK DAY.
9. ALL PROPERTY PINS SHALL BE PROTECTED FROM GRADING OR OTHER OPERATIONS. ANY PINS DISTURBED SHALL BE RESET AT THE CONTRACTOR'S EXPENSE.
10. DO NOT STORE CONSTRUCTION MATERIALS AND EQUIPMENT IN THE RIGHT OF WAY.
11. THE CONTRACTOR SHALL NOT DISTURB GRASS AREAS AND 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 OWNER.
12. THE CONTRACTOR IS RESPONSIBLE FOR REPLACING ANY AREAS OF PAVEMENT OR SIDEWALK NOT TO BE REMOVED THAT IS DAMAGED DUE TO OPERATING EQUIPMENT ON THE PAVEMENT OR SIDEWALK.
13. THE CONTRACTOR MAY BE REQUIRED TO PLACE TEMPORARY WARNING DEVICES AND SAFETY FENCE AT CERTAIN LOCATIONS WHERE REPLACEMENT FEATURES ARE NOT INSTALLED THE SAME DAY, AS DIRECTED BY THE ENGINEER OF RECORD OR THE CITY.
14. THE GENERAL CONTRACTOR SHALL BE RESPONSIBLE FOR THE COORDINATION OF STAGING OF CONSTRUCTION SUPPLIERS AND SUBCONTRACTORS INVOLVED IN THE PROJECT, INCLUDING STAGING OF CONSTRUCTION DETAILS.
15. CONCRETE REMOVAL FOR DRIVEWAY APPROACHES SHALL BE REMOVED TO THE NEAREST TRANSVERSE JOINT. CONTRACTOR SHALL VERIFY REMOVAL LIMITS WITH CITY'S CONSTRUCTION INSPECTOR PRIOR TO ANY CONCRETE REMOVAL.
16. ALL PERMITS AND ADDITIONAL FEES REQUIRED TO COMPLETE THE WORK SHALL BE INCLUDED IN THE CONTRACTOR BID.
17. COORDINATE FINAL KNOX BOX LOCATIONS WITH MICROSOFT SECURITY AND CITY OF WEST DES MOINES FIRE DEPARTMENT.

CITY OF WEST DES MOINES NOTES

1. ALL WATER WORK, PUBLIC OR PRIVATE, SHALL BE DONE IN ACCORDANCE WITH WEST DES MOINES WATER WORKS STANDARD SPECIFICATIONS.
2. CONTRACTOR SHALL NOTIFY WEST DES MOINES WATER WORKS AT LEAST ONE WEEK PRIOR TO BUILDING CONSTRUCTION.
3. THE GENERAL CONTRACTOR SHALL BE RESPONSIBLE FOR THE COORDINATION OF WORK OF ALL SUBCONTRACTORS INVOLVED IN THE PROJECT.
4. CONTACT BUILDING INSPECTION (515-222-3630) A MINIMUM OF 24 HOURS IN ADVANCE FOR PRIVATE UTILITY INSTALLATION INSPECTIONS.
5. THE GENERAL CONTRACTOR SHALL BE RESPONSIBLE FOR COMPLIANCE WITH THE WEST DES MOINES WATER WORKS AND THE CITY'S CROSS CONNECTION CONTROL/CONTAINMENT PROVISION.
6. THE GENERAL CONTRACTOR SHALL BE RESPONSIBLE FOR THE PROPER INSTALLATION OF APPROVED BACKFLOW PREVENTION ASSEMBLIES FOR CONTAINMENT IN ALL NEW CONSTRUCTION. BACKFLOW PREVENTION SHALL BE INSTALLED PER CITY ORDINANCE 1297.54-1988. THE CONTRACTOR SHALL NOTIFY WEST DES MOINES WATER WORKS, RALPH RENTERIA, ENGINEERING TECHNICIAN (515) 222-3465 A MINIMUM OF 24 HOURS AFTER INSTALLATION AND TESTING OF ALL BACKFLOW DEVICES TO SCHEDULE FINAL INSPECTION.
7. ALL CONNECTIONS TO PUBLIC SEWERS SHALL BE CORE DRILLED TO MANHOLES.
8. ALL CONSTRUCTION WITHIN PUBLIC R.O.W. EASEMENTS, AND/OR CONNECTION TO PUBLIC SEWERS AND STREETS, SHALL COMPLY WITH THE WEST DES MOINES STANDARD CONSTRUCTION SPECIFICATIONS FOR SUBDIVISIONS.
9. AT LEAST ONE WEEK PRIOR TO ANY CONSTRUCTION WITHIN PUBLIC R.O.W. EASEMENTS, AND/OR CONNECTION TO PUBLIC SEWERS AND STREETS, THE CONTRACTOR SHALL CONTACT THE WDM CONSTRUCTION DIVISION CLINT CARPENTER (515-222-3480) TO OBTAIN APPLICABLE CITY PERMITS THAT MAY BE NECESSARY.



8600 Ward Parkway
Kansas City, MO 64114
www.burnsmcd.com



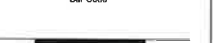
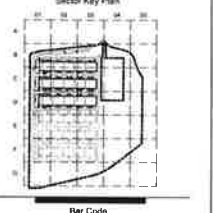
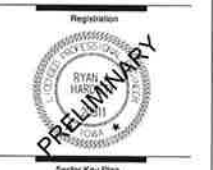
**DSM 42
DATA CENTER**
11100 Booneville Road
West Des Moines, Iowa

| | |
|---------|------------|
| Drawn | MDP-ZE |
| Checked | MDP-ZE |
| Date | 10/18/2023 |
| Project | DSM42 |
| Sheet | C-1 |
| Scale | AS SHOWN |

| MICROSOFT | |
|-----------------|------------------|
| Project Manager | JOHNTYONE |
| Utility Manager | JOHNTYONE |
| City Engineer | KEVIN SHERIDAN |
| City Engineer | RYAN JAMES |
| City Engineer | JEFFREY WILSON |
| City Engineer | DANIEL GARCIA |
| City Engineer | WILL CLAY |
| City Engineer | JEFFREY WILSON |
| City Engineer | ZACHARY MITCHELL |
| City Engineer | MARK ANDERSON |
| City Engineer | MARCEA BARBAT |

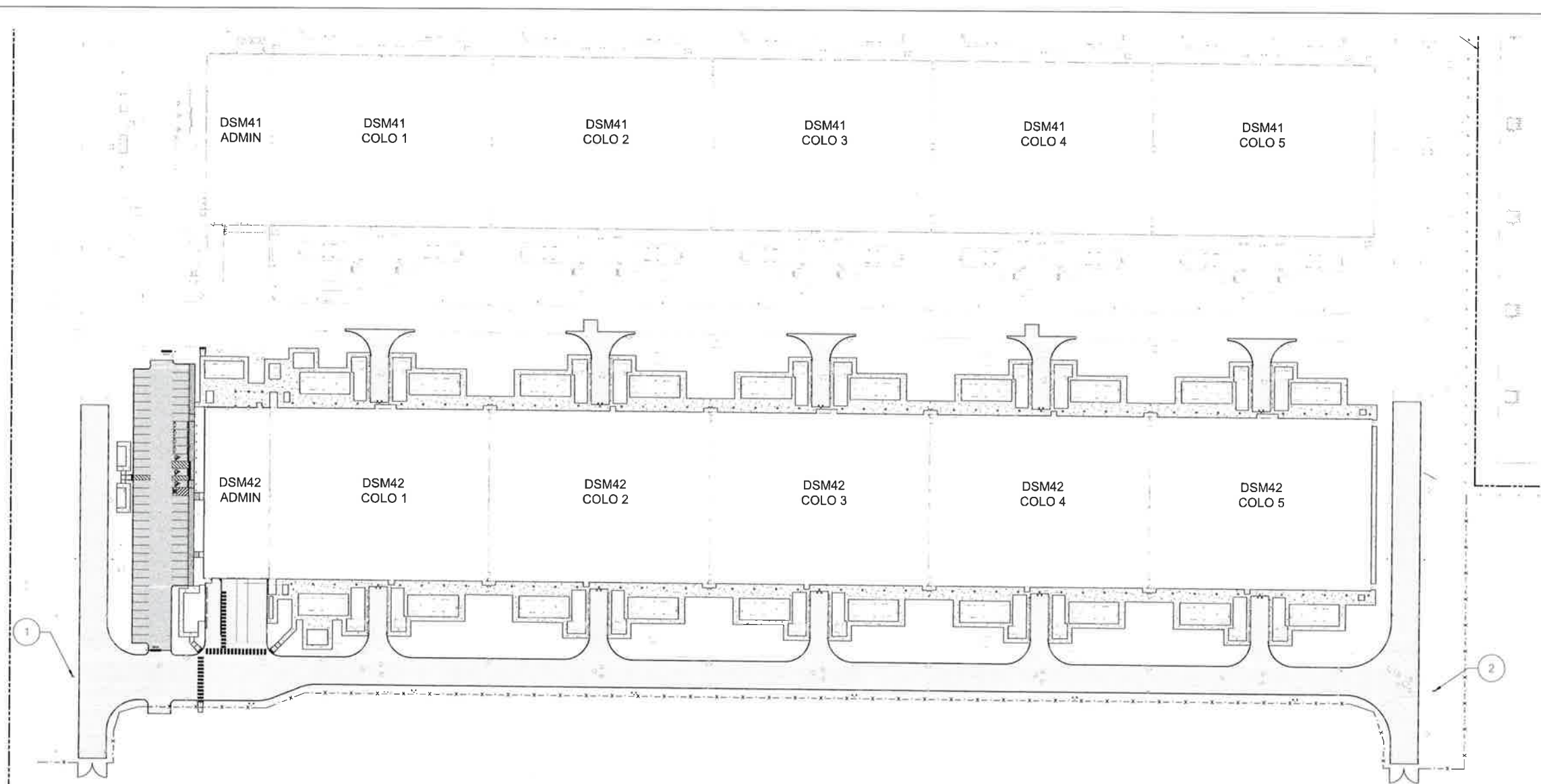
| DESIGN TEAM | |
|---------------------|---|
| Civil Engineer | KEVIN SHERIDAN / CIVIL DESIGN ADVANTAGE |
| Structural Engineer | RYAN JAMES / B&M |
| Architectural | JEFFREY WILSON / B&M |
| Mechanical | DANIEL GARCIA / B&M |
| Electrical | WILL CLAY / B&M |
| Process | JEFFREY WILSON / B&M |
| Construction | ZACHARY MITCHELL / B&M |
| Construction | MARK ANDERSON / B&M |
| Construction | MARCEA BARBAT / B&M |

| Revisions | | |
|-----------|-------------|----------------|
| No. | Date | Description |
| 1 | 23 SEP 2023 | REV #1 PACKAGE |
| 2 | 20 OCT 2023 | REV #2 PACKAGE |
| 3 | 08 NOV 2023 | REV #3 PACKAGE |



Package
FULL BUILDOUT
Sheet Title/Number
**CIVIL SITE
IMPROVEMENTS
PLAN OVERALL**

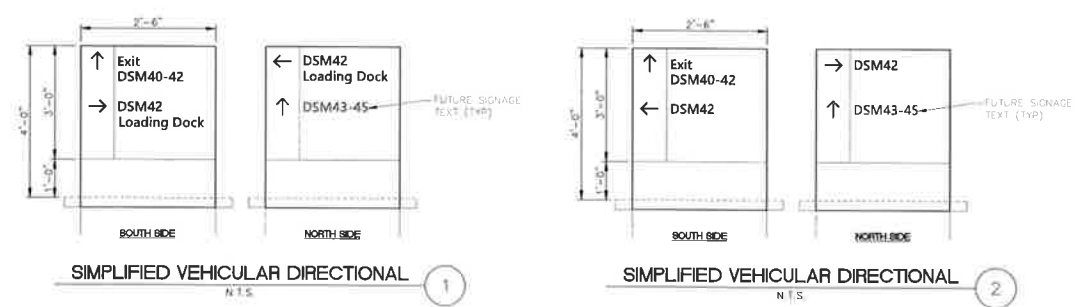
DSM42-C-C1-01



DSM41 ADMIN DSM41 COLO 1 DSM41 COLO 2 DSM41 COLO 3 DSM41 COLO 4 DSM41 COLO 5

DSM42 ADMIN DSM42 COLO 1 DSM42 COLO 2 DSM42 COLO 3 DSM42 COLO 4 DSM42 COLO 5

FUTURE DSM43 ADMIN FUTURE DSM43 COLO 1 FUTURE DSM43 COLO 2 FUTURE DSM43 COLO 3 FUTURE DSM43 COLO 4 FUTURE DSM43 COLO 5



Microsoft
DSM 42
DATA CENTER
11100 Booneville Road
West Des Moines, Iowa

| | |
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| Design | MSW/OT |
| Drawn | MSW/OT |
| Checked | |
| Date | |
| MSW/OT | |
| MSW/OT | |
| MSW/OT | |

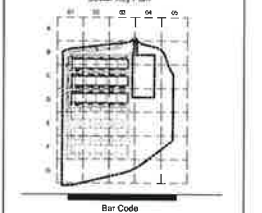
MICROSOFT

| | |
|-------------------------|------------|
| Design Manager | JON AVIGNE |
| Lead Architect | |
| Lead Engineer | |
| Lead Electrician | |
| Lead Mechanical | |
| Lead Plumbing | |
| Lead Structural | |
| Lead Telecommunications | |
| Lead Security | |

DESIGN TEAM

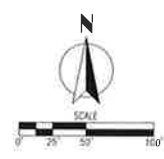
| | |
|-----------------------------|--|
| Civil Engineer | BRUNN BARNETT / CIVIL DESIGN ADVANTAGE |
| Structural Engineer | RYAN JAMES / BMB |
| Architectural Lead | RYAN JAMES / BMB |
| Mechanical Engineer | JEFFREY WILSON / BMB |
| Plumbing Engineer | DANIEL GARCIA / BMB |
| Fire Protection Engineer | WALL CLAY / BMB |
| MEP Engineer | JEFFREY WILSON / BMB |
| Structural Engineer | JOSHUA MITCHELL / BMB |
| Telecommunications Engineer | MARK AUGER / BMB |
| Security Systems Engineer | BRUCE BARBER / INTERSCA |

| No. | Date | Description |
|-----|-------------|----------------|
| 1 | 11 SEP 2023 | SIN FR PACKAGE |
| 2 | 20 OCT 2023 | SIN FR PACKAGE |
| 3 | 13 MAR 2024 | SIN FR PACKAGE |

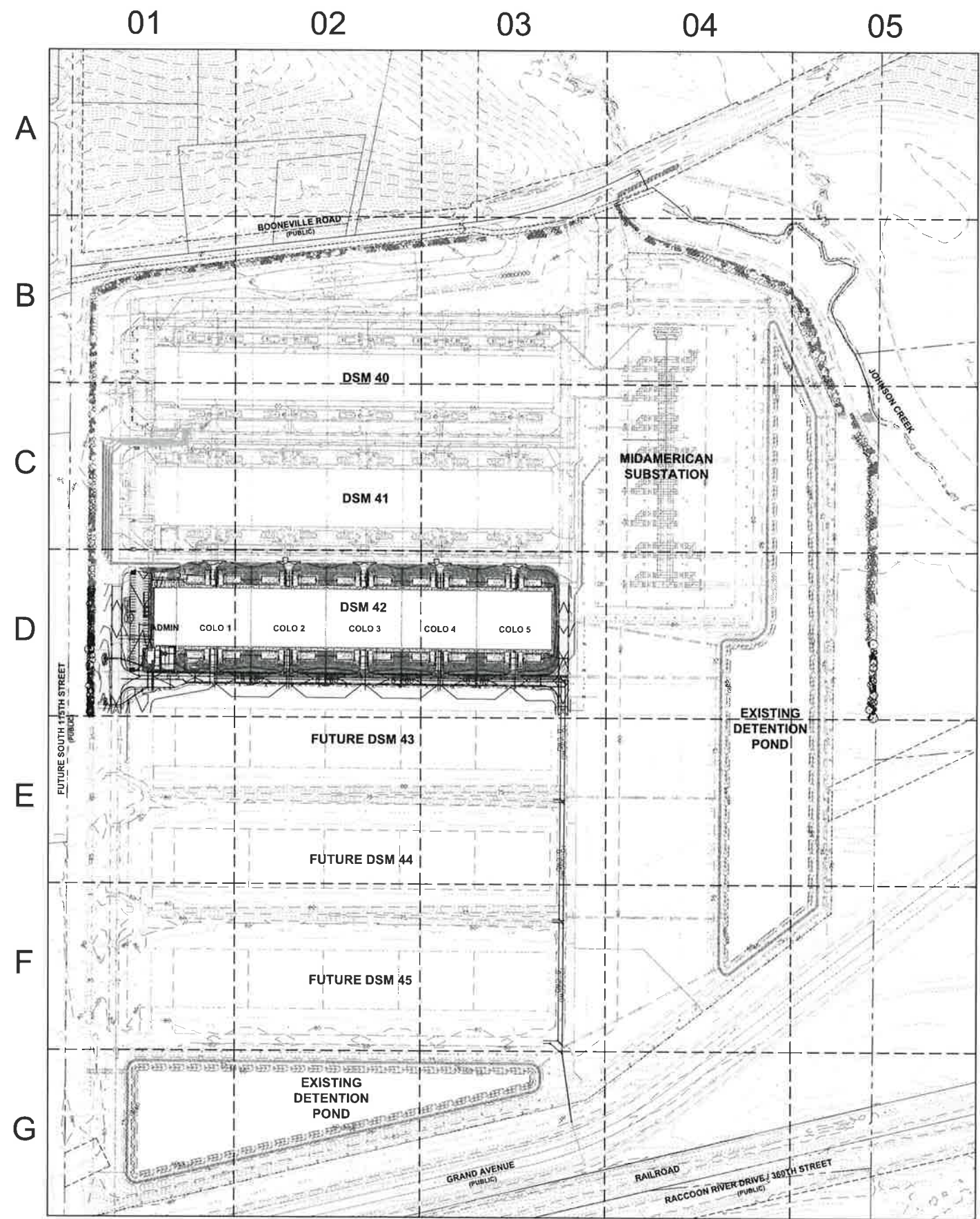


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Package:
FULL BUILDOUT
Sheet Title/Number:
**CIVIL SITE
DIRECTIONAL
SIGNAGE PLAN
& DETAILS**
DSM42-C-C1-05



DSM42-C-C1-05



LANDSCAPE TOTALS

TOTAL SITE AREA: +925,004 S.F. (21.23 AC)
 OPEN SPACE REQUIRED: -185,019 S.F. (4.24 AC, 20%)

DSM 42 BUFFER REQUIREMENTS
 30' BUFFER REQ. PER NOM LANDSCAPE PROVISIONS 9-19-B-E-3-B
 1 OVERSTORY/EVERGREEN TREE/ 35 L.F., 2 UNDERSTORY TREES/ 35 L.F., 6 SHRUBS/ 35 L.F.
 415 L.F. of 30' BUFFER
 12 OVERSTORY TREES REQUIRED
 24 UNDERSTORY TREES REQUIRED
 72 SHRUBS REQUIRED

60' BUFFER REQ. PER NOM LANDSCAPE PROVISIONS 9-19-B-E-3-A
 1 OVERSTORY/EVERGREEN TREE/ 35 L.F., 3 SHRUBS/ 35 L.F.
 258 L.F. of 60' BUFFER
 8 OVERSTORY TREES REQUIRED
 22 SHRUBS REQUIRED

TOTAL BUFFER PROVIDED -
 36 OVERSTORY/EVERGREEN TREES PROVIDED - 36 SURPLUS
 24 UNDERSTORY TREES PROVIDED - 8 SURPLUS
 241 SHRUBS PROVIDED - 123 SURPLUS

OPEN SPACE REQUIREMENTS
 PER NOM LANDSCAPE PROVISIONS 9-19-B-1
 2 TREE & 3 SHRUBS/ 3000 S.F. WITH 50% AS OVERSTORY/EVERGREEN
 123 TREES
 183 SHRUBS REQUIRED

THE CALCULATIONS ABOVE REPRESENT A COMBINED TOTAL OF OPEN SPACE AND BUFFER PLANTING CONTAINED WITHIN THE 30' AND 60' BUFFERS ON THIS SITE.

PARKING LOT LANDSCAPE REQUIREMENTS
 PER NOM LANDSCAPE PROVISIONS 9-18-B-11
 MINIMUM OF ONE LANDSCAPED 9'x17' ISLAND PER 18 STALLS OF SINGLE ROW PARKING
 ONE TREE PER 9'x17' ISLAND
 33 STALLS (1 ISLAND) AND 26 STALLS (1 ISLAND) OF SINGLE ROW PARKING AND TERMINAL ISLANDS (4 ISLANDS)
 6 TREES REQUIRED

TOTAL TREES PROVIDED* -
 4 OVERSTORY/EVERGREEN TREES PROVIDED

*REQUIRED TREES ARE PROVIDED IN LANDSCAPE BUFFER AND ARE LABELED ON SHEET L-A1-01

TOTAL COMBINED LANDSCAPE CALCULATIONS

TOTAL PLANT MATERIAL REQUIRED
 TREES: 183
 SHRUBS: 301

TOTAL PLANT MATERIAL PROVIDED*
 OVERSTORY/EVERGREEN TREES: 62
 UNDERSTORY TREES: 28
 SHRUBS: 241

*DEFICIENCIES WILL BE ACCOMMODATED IN THE DSM 43-45 LANDSCAPE.

LANDSCAPE NOTES

1. LOCATE ALL UTILITIES BEFORE ANY PLANTING BEGINS.
2. ALL LANDSCAPE CONSTRUCTION SHALL CONFORM TO THE MOST RECENT EDITION OF THE WEST DES MOINES STANDARDS SPECIFICATIONS FOR SUBDIVISIONS.
3. BACKFILL TO TOP OF CURB (MINUS 1 1/2" FOR 500, IF REQ.)
4. WEED PREVENTER (PRE-EMERGENT) SHALL BE SPREAD OVER SOIL AFTER PLANTING AND BEFORE MULCHING IN ALL PLANTING BEDS PER MANUFACTURER'S RECOMMENDATIONS.
5. PLANT QUANTITIES ARE SHOWN FOR INFORMATION ONLY. THE DRAWING SHALL GOVERN IF ANY CONFLICTS ARISE.
6. ALL DEBRIS SPILLED IN ANY PUBLIC R.O.W. SHALL BE PICKED UP BY THE CONTRACTOR AT THE END OF EACH WORK DAY.
7. NO OVERSTORY TREES SHALL BE PLANTED IN ANY CITY OF WEST DES MOINES PUBLIC UTILITY EASEMENT.
8. ROCK MULCH SHALL BE RIVER ROCK, MINIMUM DEPTH OF 3" OVER MISCELLANEOUS LANDSCAPE FABRIC OR APPROVED EQUAL. EDGING BETWEEN ROCK MULCH AND GRASS SHALL BE 4" STEEL LANDSCAPE EDGING.
9. MAINTAIN 10' CLEARANCE OF ANY PLANTINGS ON EACH SIDE OF THE PERIMETER FENCE.
10. SEED ALL DISTURBED AREAS (LESS PLANTING BEDS) WITH SEED TYPE #1 PERMANENT LAWN MIXTURE. REFER TO THE SPECIFICATIONS.

PLANT SCHEDULE 115TH ST BUFFER

| EVERGREEN TREES | QTY | COMMON NAME | BOTANICAL NAME | CONDITION AND SIZE | CAL | SIZE |
|-----------------|-----|--------------------|----------------------|-------------------------------------|-----|---------|
| PE | 21 | Black Hills Spruce | Picea glauca densata | BAB, 8' HEIGHT, 50-100' MAT. HEIGHT | 8" | 15" DIA |
| PL | 3 | Limber Pine | Pinus flexilis | BAB, 6' HEIGHT | 6" | 12" DIA |
| PS | 6 | White Pine | Pinus strobus | BAB, 6' HEIGHT, 50-80' MAT. HEIGHT | 6" | 12" DIA |

| ORNAMENTAL TREES | QTY | COMMON NAME | BOTANICAL NAME | CONDITION AND SIZE | CAL | SIZE |
|------------------|-----|-----------------------|-----------------------|-------------------------|------------------------|---------|
| AS | 7 | Sambucus | Amelanchier alnifolia | BAB, 15-20' MAT. HEIGHT | 1.5" | 12" DIA |
| CC | 12 | Eastern Redbud | Cercis canadensis | BAB, 20-30' MAT. HEIGHT | 1.5" | 12" DIA |
| MS | 8 | Spring Snow Crabapple | Malus x 'Spring Snow' | BAB | 1.5" CAL, 8-10' HEIGHT | 12" DIA |

| OVERSTORY TREES | QTY | COMMON NAME | BOTANICAL NAME | CONDITION AND SIZE | CAL | SIZE |
|-----------------|-----|----------------|-------------------------|-------------------------|-----|---------|
| AE | 2 | Endemum Maple | Acer spicatum 'Endemum' | BAB, 50' MAT. HEIGHT | 2" | 20" DIA |
| AM | 8 | Creosote Maple | Acer spicatum 'Morton' | BAB, 50' MAT. HEIGHT | 2" | 20" DIA |
| AW | 3 | Black Maple | Acer nigrum | BAB, 50-75' MAT. HEIGHT | 2" | 25" DIA |
| QR | 1 | Red Oak | Quercus rubra | BAB, 80-90' MAT. HEIGHT | 2" | 30" DIA |

| SHRUBS | QTY | COMMON NAME | BOTANICAL NAME | CONDITION AND SIZE | CAL | SIZE |
|--------|-----|---------------------|------------------------------|--------------------|-----|------|
| CG | 28 | Gray Dogwood | Cornus rogersiana | 5 GAL | | |
| CH | 30 | Hairy Holly Dogwood | Cornus alba 'Doronicum' | 5 GAL | | |
| CH2 | 10 | Hairy Holly Dogwood | Cornus alba 'Doronicum' | 5 GAL | | |
| PJ | 24 | Jackson's Pampas | Panicum byzantinum 'Jackson' | 5 GAL | | |
| SE | 36 | Elderberry | Sambucus canadensis | 5 GAL | | |
| VB | 31 | Blackhaw Viburnum | Viburnum prunifolium | 5 GAL | | |

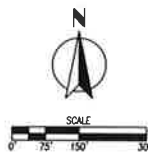
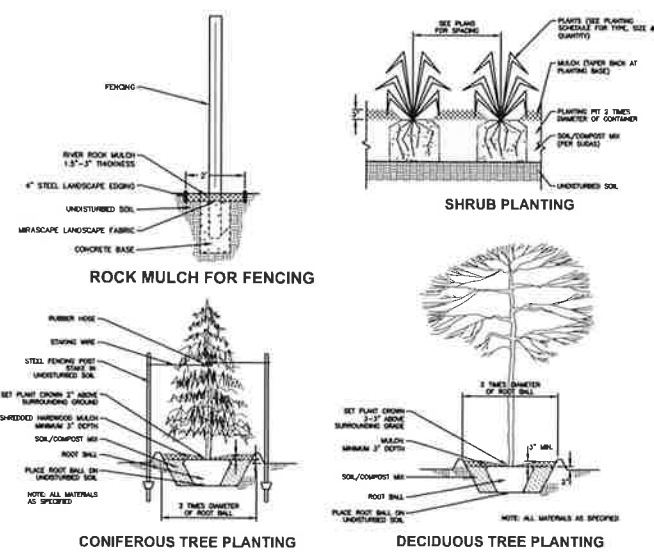
PLANT SCHEDULE EAST BUFFER

| EVERGREEN TREES | QTY | COMMON NAME | BOTANICAL NAME | CONDITION AND SIZE | CAL | SIZE |
|-----------------|-----|--------------------|----------------------|-------------------------------------|-----|---------|
| PE | 2 | Black Hills Spruce | Picea glauca densata | BAB, 8' HEIGHT, 50-100' MAT. HEIGHT | 8" | 15" DIA |
| PL | 2 | Limber Pine | Pinus flexilis | BAB, 6' HEIGHT | 6" | 12" DIA |
| PS | 5 | White Pine | Pinus strobus | BAB, 6' HEIGHT, 50-80' MAT. HEIGHT | 6" | 12" DIA |

| ORNAMENTAL TREES | QTY | COMMON NAME | BOTANICAL NAME | CONDITION AND SIZE | CAL | SIZE |
|------------------|-----|-----------------------|-----------------------|--------------------|------------------------|---------|
| MS | 2 | Spring Snow Crabapple | Malus x 'Spring Snow' | BAB | 1.5" CAL, 8-10' HEIGHT | 12" DIA |

| OVERSTORY TREES | QTY | COMMON NAME | BOTANICAL NAME | CONDITION AND SIZE | CAL | SIZE |
|-----------------|-----|----------------|-------------------------|-------------------------|-----|---------|
| AE | 4 | Endemum Maple | Acer spicatum 'Endemum' | BAB, 50' MAT. HEIGHT | 2" | 20" DIA |
| AM | 1 | Creosote Maple | Acer spicatum 'Morton' | BAB, 50' MAT. HEIGHT | 2" | 20" DIA |
| AW | 4 | Black Maple | Acer nigrum | BAB, 50-75' MAT. HEIGHT | 2" | 25" DIA |
| QR | 2 | Red Oak | Quercus rubra | BAB, 80-90' MAT. HEIGHT | 2" | 30" DIA |

| SHRUBS | QTY | COMMON NAME | BOTANICAL NAME | CONDITION AND SIZE | CAL | SIZE |
|--------|-----|-------------------|----------------------|--------------------|-----|------|
| CG | 14 | Gray Dogwood | Cornus rogersiana | 5 GAL | | |
| SE | 15 | Elderberry | Sambucus canadensis | 5 GAL | | |
| VB | 15 | Blackhaw Viburnum | Viburnum prunifolium | 5 GAL | | |



EA
 Civil Design Advantage
 4121 NW Urtlandia Drive
 Urbandale, IA 50322

BURNS MEDONNELL
 9400 Ward Parkway
 Kansas City, MO 64114
 www.burnsmcdonnell.com

NAVIX
 SITE CHX

Microsoft
 DSM 42
 DATA CENTER
 11100 Booneville Road
 West Des Moines, Iowa

Sheet: DSM-42
 Title: DSM-42
 Created: Auto
 Date: 11/10/2011
 Plot Scale: 1/8"=1'-0"
 Plot Date: 11/10/2011

MICROSOFT
 Design Manager: JON NYDINE
 Design Engineer: RYAN HANSEN
 Design Engineer: LISA GALLANT / DAVID SWANSON
 Design Engineer: STEVE THORPE
 Design Engineer: BILL GORRENGER
 Design Engineer: ANGA KRISHNAN
 Design Engineer: DEVID FRANKO
 Design Engineer: MATT BISHOP
 Design Engineer: DANIEL PUTMAN

DESIGN TEAM
 Civil Engineering: RYAN HANSEN / CIVIL DESIGN ADVANTAGE
 Structural Engineering: RYAN JEMILL / EMMO
 Architectural: NEAL CLEMENTS / EMMO
 Mechanical Engineering: JEFFREY WELSON / EMMO
 Electrical Engineering: JEFFREY WELSON / EMMO
 Environmental Engineering: NEAL CLEMENTS / EMMO
 Surveying: MICHAEL BARBER / EMMO

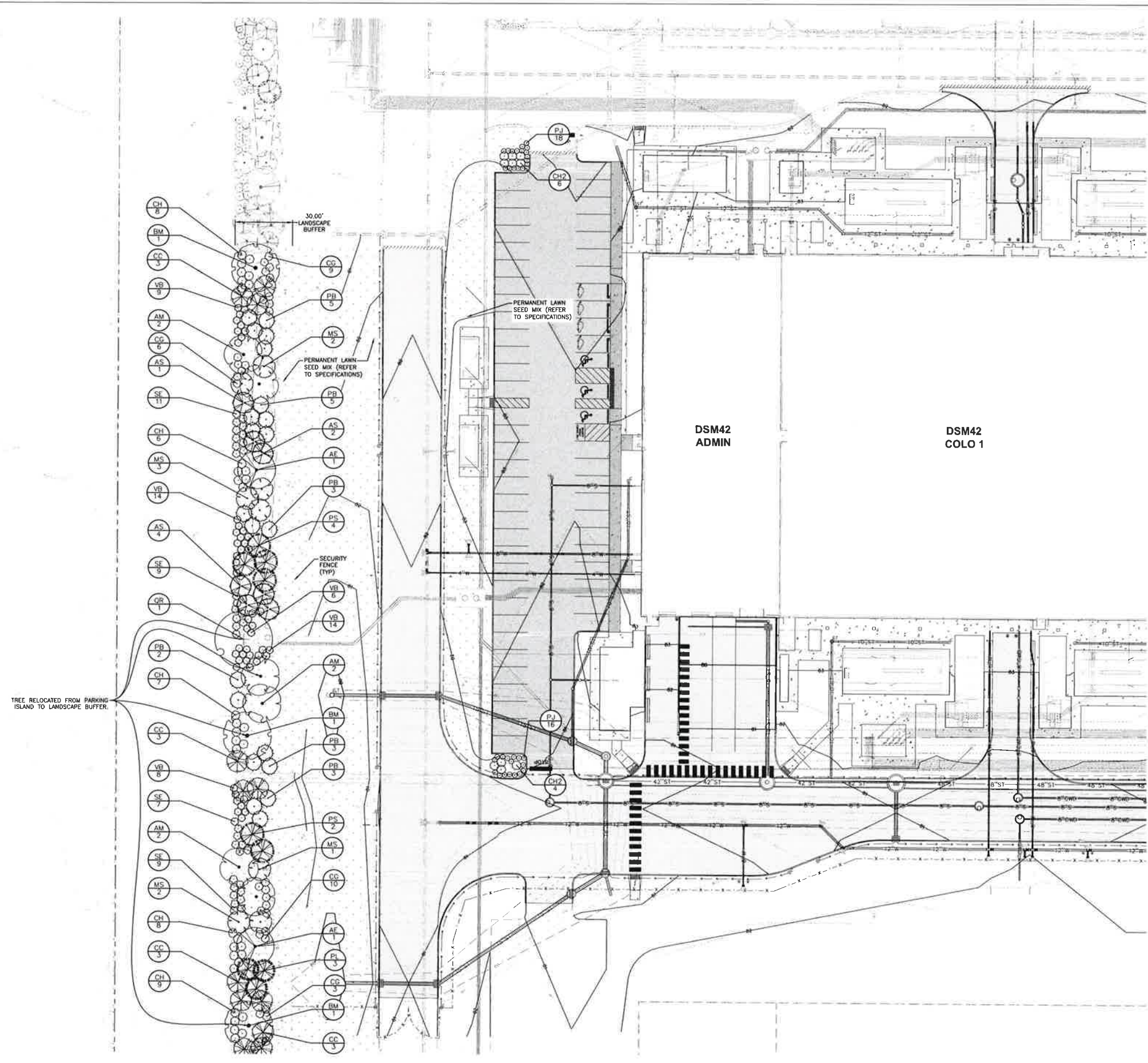
Revisions
 No. Date Description
 1 11/10/2011 001 001 PACKAGE
 2 11/10/2011 002 002 PACKAGE
 3 11/10/2011 003 003 PACKAGE
 4 11/10/2011 004 004 SUBMITTAL #1
 5 11/10/2011 005 005 SUBMITTAL #2

Registration

Package
FULL BUILDOUT
 Sheet Title Number
LANDSCAPE PLAN OVERALL

DSM42-L-A-1-01

DSM42-L-A-1-01



- ### LANDSCAPE KEY
- (BH) BLACK HILLS SPRUCE
 - (PS) WHITE PINE
 - (AS) SERVICEBERRY
 - (CC) EASTERN REDBUD
 - (MS) SPRING SNOW CRABAPPLE
 - (AE) ENDOWMENT MAPLE
 - (AM) CRESCENDO MAPLE
 - (BM) BLACK MAPLE
 - (OR) RED OAK
 - (CH) IVORY HALO DOGWOOD
 - (SE) ELDERBERRY
 - (VB) BLACKHAW VIBURNUM
- FULL PLANT MATERIAL SCHEDULE ON SHEET L-A1-01

- ### LANDSCAPING LEGEND
- [Pattern] DRYLAND SEED MIX TYPE 1 (SEE SPECS FOR MORE INFORMATION)
 - [Pattern] COBBLE MULCH (SEE SPECS FOR MORE INFORMATION)

EA
Civil Design Advantage
4121 NW Urbandale Drive
Urbandale, IA 50322

**BURNS
MCDONNELL**
8488 Ward Parkway
Kansas City, MO 64114
www.burnsmcd.com

NAVIX
SITE CIVIL

Microsoft
DSM 42
DATA CENTER
11100 Booneville Road
West Des Moines, Iowa

| | |
|-------------------|----------|
| Design | 10/1/23 |
| Issue | 10/1/23 |
| Checked | RAH |
| Date | 11/10/23 |
| PLANT Project No. | 23-1003 |
| PLANT Sheet No. | P-200A |

MICROSOFT

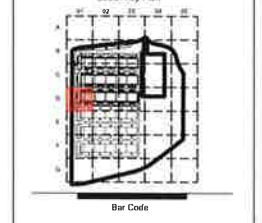
| | |
|-----------------|----------------------------------|
| Project Manager | JON WISOME |
| Site Manager | SCOTT WISOME |
| Site Supervisor | LISA GALLANT / JONATHAN BARNHART |
| Site Supervisor | STEVE TOLPIN |
| Site Supervisor | BILL GEMMEL |
| Site Supervisor | MARCA WISOME |
| Site Supervisor | BRIGID FLORES |
| Site Supervisor | MATT BENDON |
| Site Supervisor | DANIEL PUTMAN |

DESIGN TEAM

| | |
|---------------------------------------|---|
| Lead Designer | RYAN HARSHBARGER / LOCAL DESIGN ADVANTAGE |
| Senior Engineer | BRYAN JAMES / BAUD |
| Engineer | REAL CLEMENTS / BAUD |
| Engineer | JEFFREY WILSON / BAUD |
| Surveying Engineer | DANIEL GARCIA / BAUD |
| Tree Protection Engineer | PAUL CLAY / BAUD |
| MEP Engineering | JEFFREY WILSON / BAUD |
| Structural Engineering | JASON MITCHELL / BAUD |
| Transportation Planning & Engineering | MARCO BASTIEN / BAUD |
| Security Systems & Engineering | MARCO BASTIEN / BAUD |
| Security Systems & Engineering | MARCO BASTIEN / BAUD |

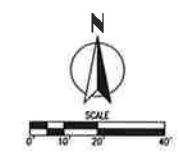
Revisions

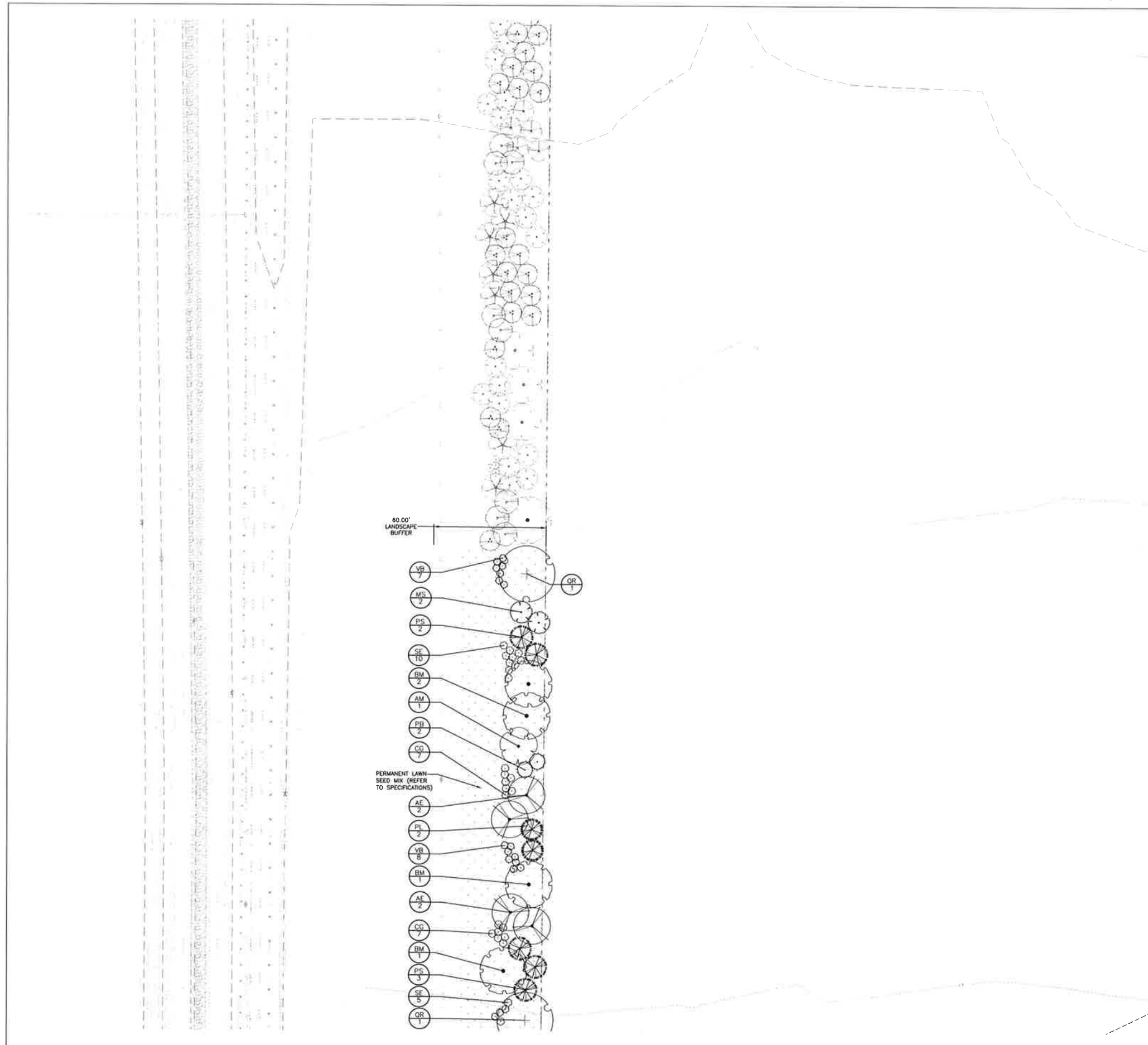
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|-----|-------------|-----------------------------|
| 1 | 21 SEP 2023 | 20% PER PACKAGE |
| 2 | 25 OCT 2023 | 30% PER PACKAGE |
| 3 | 13 NOV 2023 | 40% PER PACKAGE |
| 4 | 13 NOV 2023 | CITY OF WEST DES MOINES, IA |
| 5 | 13 NOV 2023 | CITY OF WEST DES MOINES, IA |



Package
FULL BUILDOUT
Sheet Title Number
LANDSCAPE PLAN

DSM42-L-A1-D01





LANDSCAPE KEY

- Ⓟ BLACK HILLS SPRUCE
 - Ⓟ WHITE PINE
 - Ⓟ SERVICEBERRY
 - Ⓟ EASTERN REDBUD
 - Ⓟ SPRING SNOW CRABAPPLE
 - Ⓟ ENDOWMENT MAPLE
 - Ⓟ CRESCENDO MAPLE
 - Ⓟ BLACK MAPLE
 - Ⓟ RED OAK
 - Ⓟ IVORY HALO DOGWOOD
 - Ⓟ ELDERBERRY
 - Ⓟ BLACKHAW VIBURNUM
- FULL PLANT MATERIAL SCHEDULE ON SHEET L-A1-01

LANDSCAPING LEGEND

- DRYLAND SEED MIX TYPE 1 (SEE SPECS FOR MORE INFORMATION)
- CORNICE MIXTURE (SEE SPECS FOR MORE INFORMATION)

EA
Civil Design Advantage
4221 NW Urbandale Drive
Urbandale, IA 50322

BURNS MEDONNELL
9400 Wood Parkway
Keosauqua, IA 50241
www.burnsmcd.com

NAVIX
SITE CIVIL

Microsoft
DSM 42
DATA CENTER
11100 Booneville Road
West Des Moines, Iowa

| | |
|--------------|------------|
| Drawn | AMW / JJ |
| Checked | AMW |
| Date | 11/10/2021 |
| Sheet Number | 11 of 100 |
| Project Name | DSM 42 |

MICROSOFT

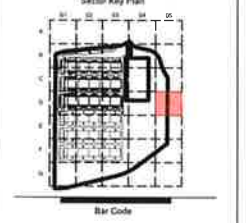
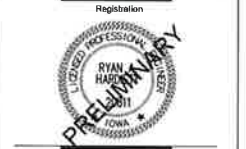
| | |
|----------------------------------|--------------------------------|
| Project Manager | JONATHAN |
| Lead Designer | SCHMIDT DEXER |
| Designer & Engineer | LEGA SALLAVET / DAVID BURANSON |
| Lead Planning & Site Preparation | STEVE MURPHY |
| Planning & Site Preparation | BILL LEMBERSKI |
| Electrical Technician | JANICA KRISHNAN |
| Electrical Power Wiring | BERGHO FRANGIO |
| Mechanical & HVAC | MATT BENSON |
| Structural Design | DANIEL PUTMAN |

DESIGN TEAM

| | |
|---------------------|--|
| Chief Engineer | RYAN HADFIELD / JACOB DESIGN ADVANTAGE |
| Structural Engineer | RYAN JEMIL / BSAID |
| Architectural | SEAL CLEMENTS / BSAID |
| Mechanical Engineer | JEFFREY WILSON / BSAID |
| Electrical Engineer | ANSON MITCHELL / BSAID |
| Structural Engineer | MARIA ANDRESON / BSAID |
| Structural Engineer | MICHAEL BARBAT / OUTSOUR |

Revisions

| No. | Date | Description |
|-----|-------------|-------------------|
| 1 | 11 SEP 2021 | ISSUE FOR PERMITS |
| 2 | 20 OCT 2021 | ISSUE FOR PERMITS |
| 3 | 12 NOV 2021 | REVISED |
| 4 | 13 NOV 2021 | ISSUE FOR PERMITS |
| 5 | 24 NOV 2021 | ISSUE FOR PERMITS |



Package
FULL BUILDOUT
Sheet Title Number
LANDSCAPE PLAN

DSM42-L-A1-D05

DSM42-L-A1-D05

A RESOLUTION OF THE PLANNING AND ZONING COMMISSION

NO. PZC-23-065

WHEREAS, pursuant to the provisions of Title 9, Zoning of the West Des Moines Municipal Code, the applicant and property owner, Microsoft Corporation, request approval of the Major Modification to Site Plan for the approximately 153-acre property located at 11100 Booneville Road as depicted on the location map included in the staff report. The applicant requests approval to construct a 245,000 square foot data center building, and associated site improvements; and

WHEREAS, the Major Modification to Site Plan request complies with the findings stated in the applicable provisions of Title 9, the Comprehensive Plan and City Code.

NOW THEREFORE, the Planning and Zoning Commission of the City of West Des Moines recommends the City Council approve the Microsoft DSM 42 Major Modification to Site Plan (MaM-006237-2023), subject to compliance with all the conditions of approval as stated in the staff report, including conditions added at the meeting, and attached hereto as Exhibit "A", if applicable.

PASSED AND ADOPTED on December 27, 2023.

Andrew Conlin, Chair
Planning and Zoning Commission

I HEREBY CERTIFY that the foregoing resolution was duly adopted by the Planning and Zoning Commission of the City of West Des Moines, Iowa, at a regular meeting on December 27, 2023, by the following vote:

AYES:

NAYS:

ABSTENTIONS:

ABSENT:

ATTEST:

Recording Secretary