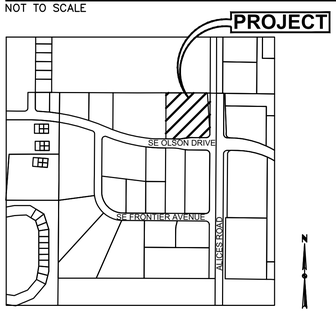
SITE PLAN/PRELIMINARY PLAT FOR:

ACCESS SYSTEMS

1055 SE OLSON DRIVE
WAUKEE, IA

VICINITY MAP

NOT TO SCALE



OWNER:

JACE PROPERTIES, LLC
975 SE OLSON DRIVE
WAUKEE, IA 50263
CONTACT: JANETTE MARTENS
PHONE: 515-987-6227

APPLICANT

ACCESS SYSTEMS
955 SE OLSON DRIVE
WAUKEE, IA 50263
CONTACT: JAY AGARD
PHONE: 515-987-6227

ARCHITECT

DOWNING CONSTRUCTION, INC.
509 E SCENIC VALLEY AVENUE
INDIANOLA, IA 50125
CONTACT: JOSH RIDGELY
PHONE: 515-961-5386

ENGINEER/ SURVEYOR:

CIVIL DESIGN ADVANTAGE, LLC
CONTACT: NIKKI NEAL
4121 NW URBANDALE DRIVE
URBANDALE, IA 50322
PHONE (515) 369-4400
FX. (515) 369-4410

DATE OF SURVEY

NOVEMBER 23, 2021

BENCHMARKS

CUT 'X' @ CENTERLINE OF SE OLSON DRIVE & SE BRICK
ELEVATION=1047.06

SUBMITTALS

SUBMITTAL #1:	12/21/2021
SUBMITTAL #2:	02/01/2022
SUBMITTAL #3:	02/15/2022
SUBMITTAL #4:	03/03/2022

LEGAL DESCRIPTION

LOTS 1 & 2, WESTGATE BUSINESS PARK PLAT 4, AN OFFICIAL PLAT IN THE CITY OF WAUKEE, DALLAS COUNTY, IOWA. PROPERTY CONTAINS 3.08 ACRES (133,947 S.F.) AND IS SUBJECT TO ANY AND ALL EASEMENTS OF RECORD.

ZONING

M-1/PD-1; PLANNED DEVELOPMENT DISTRICT W/UNDERLYING M-1 - LIGHT INDUSTRIAL (ORDINANCE# 2397)

PROJECT SITE ADDRESS

1055 SE OLSON DRIVE WAUKEE, IOWA

EXISTING/ PROPOSED USE

EXISTING: UNDEVELOPED
PROPOSED: 2-STORY OFFICE BUILDING

BULK REGULATIONS

SETBACKS:	
FRONT:	10' PARKING SETBACK, 30' BUILDING SETBACK
SIDE:	5' PARKING SETBACK
REAR:	5' PARKING SETBACK, 35' BUILDING SETBACK
MAXIMUM HEIGHT:	40'
MAXIMUM NUMBER OF STORIES:	3 STORIES
MINIMUM OPEN SPACE:	10% TOTAL LAND AREA

DEVELOPMENT SUMMARY

SITE AREA	
LOT 1:	48,651 SF (1.12 AC)
LOT 2:	85,296 SF (1.96 AC)
TOTAL:	133,947 SF (3.08 AC)
OPEN SPACE	
REQUIRED:	13,395 SF (10%)
PROVIDED:	50,657 SF (38%)
IMPERVIOUS AREA	
BUILDING:	15,997 SF
PARKING:	19,836 SF
DRIVE AISLES:	37,689 SF
EXISTING TRAIL:	3,835 SF
SIDEWALK/PATIO:	6,655 SF
TOTAL:	84,012 SF
BUILDING AREA	
MAIN LEVEL:	15,997 SF
UPPER LEVEL:	17,453 SF
FUTURE EXPANSION MAIN LEVEL:	10,000 SF
FUTURE EXPANSION UPPER LEVEL:	10,000 SF
TOTAL:	53,450 SF
PARKING	
REQUIRED	
OFFICE (3 SPACES/ 1,000 GFA):	101 SPACES
PROVIDED	
STANDARD:	107 SPACES
ACCESSIBLE:	6 SPACES
FUTURE:	40 SPACES
TOTAL:	153 SPACES

INDEX OF SHEETS

IOWA ONE CALL
1-800-292-8989
www.iowaonecall.com
Know what's below. Call before you dig.

UTILITY WARNING

ANY 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.

CIVIL DESIGN ADVANTAGE
4121 NW URBANDALE DRIVE, URBANDALE, IOWA 50322
PH: (515) 369-4400

PROJECT NO. 2111.901

GENERAL LEGEND

PROPOSED	EXISTING
PROPERTY BOUNDARY	SANITARY MANHOLE
SECTION LINE	WATER VALVE BOX
CENTER LINE	FIRE HYDRANT
RIGHT OF WAY	WATER CURB STOP
BUILDING SETBACK	WELL
PERMANENT EASEMENT	STORM SEWER MANHOLE
TEMPORARY EASEMENT	STORM SEWER SINGLE INTAKE
TYPE SW-501 STORM INTAKE	STORM SEWER DOUBLE INTAKE
TYPE SW-502 STORM INTAKE	FLARED END SECTION
TYPE SW-503 STORM INTAKE	DECIDUOUS TREE
TYPE SW-505 STORM INTAKE	CONIFEROUS TREE
TYPE SW-506 STORM INTAKE	DECIDUOUS SHRUB
TYPE SW-512 STORM INTAKE	CONIFEROUS SHRUB
TYPE SW-513 STORM INTAKE	ELECTRIC POWER POLE
TYPE SW-401 STORM MANHOLE	GUY ANCHOR
TYPE SW-402 STORM MANHOLE	STREET LIGHT
FLARED END SECTION	POWER POLE W/ TRANSFORMER
TYPE SW-301 SANITARY MANHOLE	UTILITY POLE W/ LIGHT
STORM/SANITARY CLEANOUT	ELECTRIC BOX
WATER VALVE	ELECTRIC TRANSFORMER
FIRE HYDRANT ASSEMBLY	ELECTRIC MANHOLE OR VAULT
SIGN	TRAFFIC SIGN
DETECTABLE WARNING PANEL	TELEPHONE JUNCTION BOX
WATER CURB STOP	TELEPHONE MANHOLE/VAULT
SANITARY SEWER	TELEPHONE POLE
SANITARY SERVICE	GAS VALVE BOX
STORM SEWER	CABLE TV JUNCTION BOX
STORM SERVICE	CABLE TV MANHOLE/VAULT
WATERMAIN WITH SIZE	MAIL BOX
WATER SERVICE	BENCHMARK
SAWCUT (FULL DEPTH)	SOIL BORING
SILT FENCE	UNDERGROUND TV CABLE
USE AS CONSTRUCTED (UAC)	GAS MAIN
MINIMUM PROTECTION ELEVATION MPE	FIBER OPTIC
	UNDERGROUND TELEPHONE
	OVERHEAD ELECTRIC
	UNDERGROUND ELECTRIC
	FIELD TILE
	SANITARY SEWER W/ SIZE
	STORM SEWER W/ SIZE
	WATER MAIN W/ SIZE

THE PROJECT REQUIRES AN IOWA NPDES PERMIT #2 AND CITY OF WAUKEE COSESCO PERMIT. CIVIL DESIGN ADVANTAGE WILL PROVIDE THE PERMITS AND THE INITIAL STORM WATER POLLUTION PREVENTION PLAN (SWPPP) FOR THE CONTRACTORS USE DURING CONSTRUCTION. THE CONTRACTOR SHALL BE RESPONSIBLE FOR UPDATING THE SWPPP THROUGHOUT CONSTRUCTION AND MEETING LOCAL, STATE AND FEDERAL REQUIREMENTS.

ALL CONSTRUCTION MATERIALS, DUMPSTERS, DETACHED TRAILERS OR SIMILAR ITEMS ARE PROHIBITED ON PUBLIC STREETS OR WITHIN THE PUBLIC R.O.W.

THE WAUKEE STANDARD SPECIFICATIONS FOR PUBLIC IMPROVEMENTS, 2022 EDITION OF THE SUDAS STANDARD SPECIFICATIONS, THE PUBLIC RIGHTS-OF-WAY ACCESSIBILITY GUIDELINES (PROWAG) AND ALL CITY SUPPLEMENTALS, IF APPLICABLE, SHALL APPLY TO ALL WORK ON THIS PROJECT UNLESS OTHERWISE NOTED.

LICENSED PROFESSIONAL ENGINEER
JOHN PATRICK BECKER
25523
IOWA

I HEREBY CERTIFY THAT THIS ENGINEERING DOCUMENT WAS PREPARED BY ME OR UNDER MY DIRECT PERSONAL SUPERVISION AND THAT I AM A DULY LICENSED PROFESSIONAL ENGINEER UNDER THE LAWS OF THE STATE OF IOWA.

PRELIMINARY

JOHN PATRICK BECKER, P.E. — DATE

LICENSE NUMBER 25523
MY LICENSE RENEWAL DATE IS DECEMBER 31, 2022
PAGES OR SHEETS COVERED BY THIS SEAL:
SHEETS C0.0, C1.1, C2.1, C3.1-C3.3, C4.1 C5.1-C5.2

PROFESSIONAL LANDSCAPE ARCHITECT
KEITH D. WEGGEN
00142
IOWA

I HEREBY CERTIFY THAT THE PORTION OF THIS TECHNICAL SUBMISSION DESCRIBED BELOW WAS PREPARED BY ME OR UNDER MY DIRECT SUPERVISION AND RESPONSIBLE CHARGE. I AM A DULY LICENSED PROFESSIONAL LANDSCAPE ARCHITECT UNDER THE LAWS OF THE STATE OF IOWA.

PRELIMINARY

KEITH D. WEGGEN, ASLA — DATE

MY LICENSE RENEWAL DATE IS JUNE 30, 2022
PAGES OR SHEETS COVERED BY THIS SEAL:
SHEET L1.1

ACCESS SYSTEMS - 2111.901

DEMOLITION NOTES

1. PRIOR TO ANY WORK AT THE SITE, CONTRACTOR SHALL EXAMINE ANY APPLICABLE DRAWINGS AVAILABLE FROM THE OWNER OR ENGINEER AND CONSULT WITH OWNER'S PERSONNEL AND UTILITY COMPANY REPRESENTATIVES. NO COMPENSATION WILL BE ALLOWED FOR DAMAGE FROM FAILURE TO COMPLY WITH THIS REQUIREMENT.
2. PRIOR TO DEMOLITION, CONTRACTOR SHALL NOTIFY IN WRITING (48 HRS NOTICE) THE FOLLOWING:
   A. THE CITY OF WAUKEE
   B. APPROPRIATE UTILITY COMPANIES
   C. OWNER
   D. CIVIL DESIGN ADVANTAGE
   E. ARCHITECT
3. DO NOT DISTURB EXISTING UTILITIES UNLESS OTHERWISE NOTED. COORDINATE REMOVAL OR ABANDONMENT OF ALL UTILITIES WITH THE APPROPRIATE UTILITY SUPPLIER AND REGULATORY AGENCIES.
4. PROTECT EXISTING UTILITIES THAT ARE TO REMAIN. THE LOCATIONS OF ALL UTILITIES INDICATED ON THE PLANS ARE TAKEN FROM EXISTING RECORDS. THE EXACT LOCATION AND ELEVATION OF ALL UTILITIES MUST BE DETERMINED BY THE CONTRACTOR. IT SHALL BE THE DUTY OF THE CONTRACTOR TO ASCERTAIN WHETHER ANY ADDITIONAL FACILITIES OTHER THAN THOSE SHOWN ON THE PLAN MAY BE PRESENT.
5. BACKFILL ALL EXCAVATIONS WITH COHESIVE MATERIAL COMPACTED TO 95% MAXIMUM STANDARD PROCTOR DRY DENSITY AND MOISTURE RANGE OF OPTIMUM MOISTURE TO 4% ABOVE OPTIMUM MOISTURE. TESTING OF BACKFILL TO BE BY A GEOTECHNICAL ENGINEER EMPLOYED BY THE OWNER. IN THE EVENT OF A TEST FAILURE, ANY RETESTING SHALL BE PAID FOR BY THE CONTRACTOR.
6. FIELD VERIFY EXISTING GRADES AND LOCATION OF EXISTING UTILITIES, CONDUIT, LINES, POLES, TREES, PAVING, BUILDING AND OTHER SITE FEATURES PRIOR TO DEMOLITION AND IMMEDIATELY INFORM THE ENGINEER AND/OR OWNER OF ANY DISCREPANCIES.
7. DEMOLITION NOTES AS SHOWN ON THE PLAN ARE NOT ALL INCLUSIVE. CONTRACTOR TO ABANDON IN PLACE OR REMOVE AND DISPOSE OF ALL EXISTING SITE IMPROVEMENTS ABOVE AND BELOW GROUND TO COMPLY WITH THE GENERAL INTENT OF THIS DOCUMENT.
8. ALL CONSTRUCTION/DEMOLITION DEBRIS SHALL BE DISPOSED OF OFFSITE IN FULL COMPLIANCE WITH CURRENT ENVIRONMENTAL REGULATIONS.
9. CONSTRUCTION LIMITS SHALL BE CONFINED TO THE SITE BOUNDARY AS NOTED. ANY DAMAGE TO PROPERTIES OUTSIDE THE SITE BOUNDARY SHALL BE AT THE SOLE RESPONSIBILITY OF THE CONTRACTOR.
10. ALL WORK SHALL BE IN ACCORDANCE WITH OSHA STANDARDS. NOTHING INDICATED ON THE DRAWINGS SHALL RELIEVE THE CONTRACTOR FROM COMPLYING WITH ANY APPROPRIATE SAFETY REGULATIONS.
11. A DEMOLITION PERMIT WILL BE REQUIRED FROM THE WAUKEE DEVELOPMENT SERVICES DEPARTMENT PRIOR TO COMMENCEMENT OF DEMOLITION WORK.

N89°47'28"W 131.23'
S89°47'28"E 226.84'
CONCRETE
GAS/WATER/TRAIL/E
REMOVE AND RELOCATE HYDRANT
RIM=1047.46
FL(E)=1041.46
RETAINING WALL
EXISTING 30.00' GAS EASEMENT BK651 PG398
EXISTING 30.00' TRAIL EASEMENT BK2000 PG12285
EXISTING 30.00' WATERMAIN BK2000 PG12285
RIM=1045.40
FL=1035.95
RIM=1045.51
15" RCP FL(E)=1034.99
15" RCP FL(N)=1034.93
STORM SEWER EASEMENT BK2016 PG26006
EXISTING STORM SEWER EASEMENT BK2017 PG3428
CONCRETE
SE ALICE'S ROAD
PROTECT TREES (TYP)
REMOVE AND DISPOSE OF TREES AND STUMP (TYP)
N0°17'43"E 368.81'(M&R)
S3°25'48"E 325.15'(M&R)
REMOVE AND DISPOSE 15" APRON
EXISTING TRANSMISSION EASEMENT BK2017 PG3429
10.00' EXISTING PUE BK2018 PG22293
GUTT=1049.70
15" RCP FL(S)=1042.58
15" RCP FL(W)=1042.70
FL=1043.02
15" RCP FES
SE ALICE RD R/W VARIES
61.00' B-B
37.00' B-B
3.00' B-B
19.64'
REMOVE AND DISPOSE OF PCC PAVEMENT AND CURB AND GUTTER (SAWCUT FULL-DEPTH, TYP)
73.74'
EXISITNG OFFSITE 25.00' ACCESS EASEMENT
EXISTING 25.00' ACCESS EASEMENT BK2018 PG22294
EXISTING 26.00' ACCESS EASEMENT
REMOVE AND DISPOSE OF PCC SIDEWALK
EXISTING 31.00' ACCESS EASEMENT
EXISTING 20'X20' WATER MAIN EASEMENT BK2000 PG12285
EXISTING 10.00' ELECTRIC EASEMENT BK2003 PG4835
EXISTING 10.00' PUE BK2000 PG12285
EXISTING 20'X20' PUE BK2017 PG7132
Δ=93°46'22"
L=49.10'
R=30.00'
CH=43.80'
CHB=S43°08'33"W
MAP LOCATION
REMOVE AND DISPOSE OF PCC SIDEWALK
TRAFFIC SIGNAL CROSSWALK BUTTON
CENTURY LINK MAP LOCATION
CITY MAP LOCATIONS
3.40'
4.88'
3.88'
4.13'
S89°41'22"E 66.14'(M&R)
N89°41'22"W 107.43'(M&R)
Δ=11°06'46"
L=77.58'
R=400.00'
CH=77.46'
CHB=S84°45'15"W
Δ=1°03'46"
L=21.61'
R=1165.00'
CH=21.61'
CHB=S89°09'29"E
Δ=6°14'07"
L=43.53'
R=400.00'
CH=43.51'
CHB=N87°11'34"E
Δ=4°52'39"
L=34.05'
R=400.00'
CH=34.04'
CHB=S81°38'11"W
SE OLSON DRIVE
74.85'
RIM=1044.63
21" RCP FL(S)=1040.61
10.00'
0.50'
RIM=1045.40
8" ABS FL(W)=1034.60
8" ABS FL(E)=1034.67
31.00' B-B
SE OLSON DRIVE R/W 70.00'
GRIND CURB AND GUTTER FLUSH
GUTT=1046.41
15" RCP FL(S)=1042.06
RIM=1047.22
8" ABS FL(E)=1037.76
MAP LOCATION
48.00' B-B
SE OLSON DR R/W 100.00'
N
SCALE
0' 10' 20' 40'

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DATE PLOTTED: 3/3/2022 4:15 PM
COMMENT: ENG

DATE	REVISIONS

4121 NW URBANDALE DRIVE
URBANDALE, IOWA 50322
PHONE: (515) 369-4400

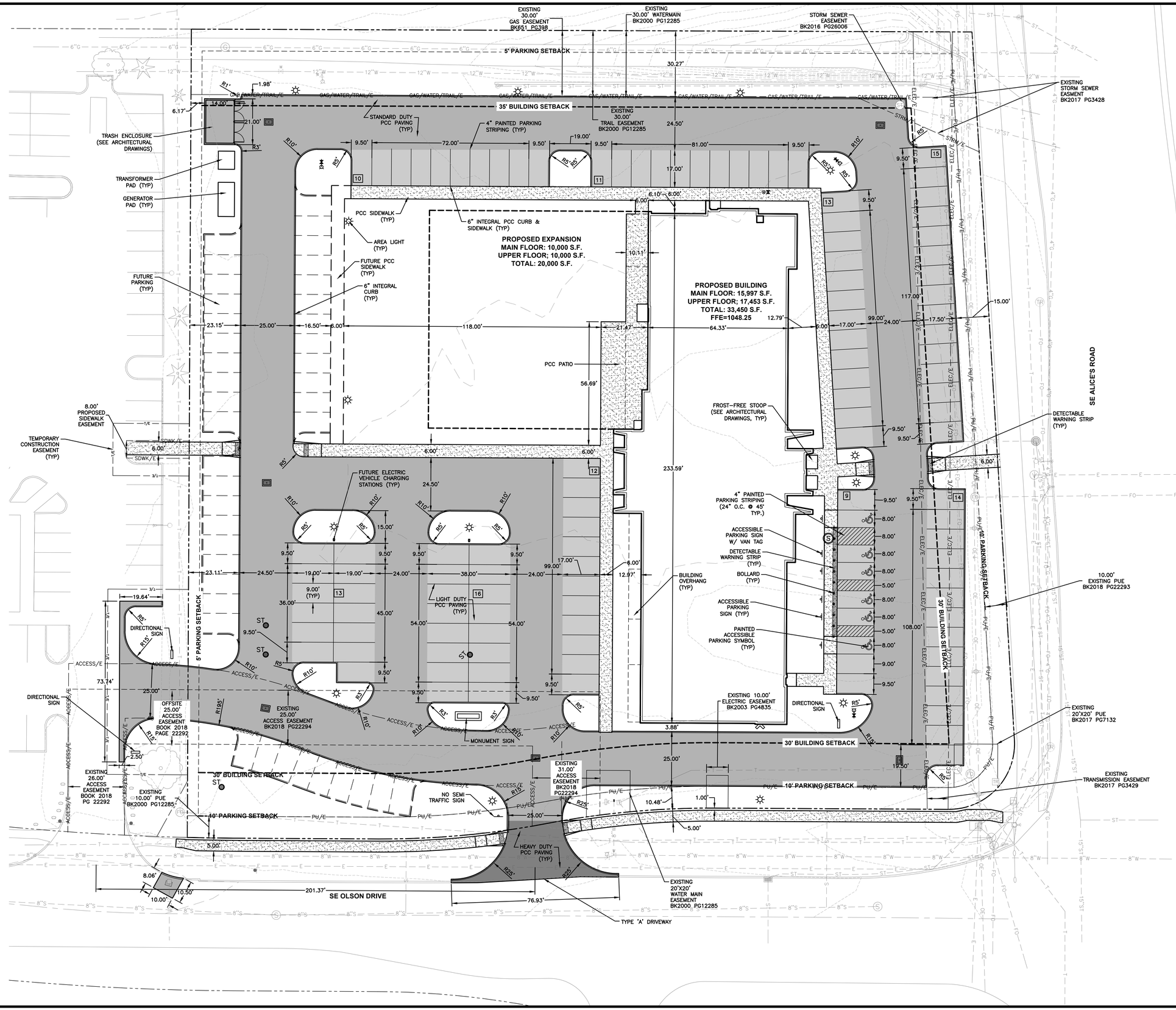
ENGINEER: DRAFTED:

CIVIL DESIGN ADVANTAGE

ACCESS SYSTEMS
TOPOGRAPHIC SURVEY/DEMOLITION PLAN

1055 SE OLSON DR. WAUKEE, IOWA

DATE: 03/03/2022
SHEET NUMBER: C1.1
2111.901



GENERAL NOTES

1. ALL CITY OF WAUKEE STANDARD SPECIFICATIONS AND THE MOST RECENT EDITION OF THE SUDAS STANDARD SPECIFICATIONS, IF APPLICABLE, SHALL APPLY TO ALL WORK ON THIS PROJECT UNLESS OTHERWISE NOTED.
2. ALL WORK SHALL COMPLY WITH ADA ACCESSIBILITY GUIDELINES FOR BUILDINGS AND FACILITIES.
3. 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.
4. 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.
5. ONE WEEK PRIOR TO CONSTRUCTION WITHIN CITY R.O.W. OR ANY CONNECTION TO PUBLIC UTILITIES CONTRACTOR SHALL NOTIFY THE CITY OF WAUKEE ENGINEERING DEPARTMENT.
6. ALL CONSTRUCTION WITHIN PUBLIC R.O.W./ EASEMENTS, AND/OR ANY CONNECTION TO PUBLIC SEWERS AND STREETS, SHALL COMPLY WITH THE CITY OF WAUKEE STANDARD SPECIFICATIONS.
7. ALL DIMENSIONS ARE TO BACK OF CURB, BUILDING FACE OR PROPERTY LINE UNLESS OTHERWISE NOTED.
8. CONTRACTOR TO VERIFY BUILDING DIMENSIONS WITH ARCHITECTURAL PLANS.
9. 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.
10. REMOVE ALL DEBRIS SPILLED INTO R.O.W./PUBLIC STREETS AT THE END OF EACH WORK DAY OR PRIOR TO A RAIN EVENT.
11. ALL PROPERTY PINS SHALL BE PROTECTED FROM GRADING OR OTHER OPERATIONS. ANY PINS DISTURBED SHALL BE RESET AT THE CONTRACTOR'S EXPENSE.
12. DO NOT STORE CONSTRUCTION MATERIALS AND EQUIPMENT IN THE RIGHT OF WAY.
13. 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 OWNER.
14. 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.
15. 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 OR THE CITY.
16. THE GENERAL CONTRACTOR SHALL BE RESPONSIBLE FOR THE COORDINATION OF WORK BETWEEN SUPPLIERS AND SUBCONTRACTORS INVOLVED IN THE PROJECT, INCLUDING STAGING OF CONSTRUCTION DETAILS.
17. ALL PERMITS AND ADDITIONAL FEES REQUIRED TO COMPLETE THE WORK SHALL BE INCLUDED IN THE CONTRACT BID.
18. ANY PROPOSED MONUMENT OR BUILDING SIGNAGE WILL REQUIRE A SIGN PERMIT AND ARE TO BE REVIEWED AND APPROVED BY THE CITY OF WAUKEE DEVELOPMENT SERVICES DEPT.
19. ALL STAKING AND CONSTRUCTION OF ALL PEDESTRIAN FACILITIES IS TO BE DONE UNDER THE DIRECTION OF A LICENSED ENGINEER OR SURVEYOR.
20. IT IS THE CONTRACTORS RESPONSIBILITY TO SCHEDULE A PRE-CONSTRUCTION MEETING WITH THE CITY OF WAUKEE DEVELOPMENT SERVICES DEPARTMENT AT LEAST ONE WEEK PRIOR TO CONSTRUCTION ACTIVITIES COMMENCING.
21. THE CONTRACTOR IS RESPONSIBLE FOR CONTACTING THE CITY OF WAUKEE DEVELOPMENT SERVICES DEPARTMENT 72 HOURS PRIOR TO ANY PLANNED WEEKEND OR HOLIDAY WORK.
22. AN AS-BUILT SITE PLAN ILLUSTRATING THE LOCATION AND DEPTHS OF SITE UTILITIES AND GRADES FOR DRAINAGE SWALES, DETENTION FACILITIES AND FFE'S SHALL BE PROVIDED IN PDF FORM AND HARD COPY UPON COMPLETION OF EACH PHASE OF DEVELOPMENT TO THE CITY WAUKEE'S DEVELOPMENT SERVICES DEPARTMENT.
23. APPROVED FIRE APPARATUS ACCESS ROADS SHALL BE PROVIDED FOR ALL BUILDINGS AS SOON AS VERTICAL CONSTRUCTION OF THE BUILDING COMMENCES. IF PAVING IS NOT INSTALLED PRIOR TO BUILDING CONSTRUCTION COMMENCING AFTER FOOTINGS ARE INSTALLED, AN APPROVED TEMPORARY ROUTE AROUND THE EXTERIOR OF THE BUILDING TO EXTEND WITHIN 100-FEET OF ALL PORTIONS OF THE EXTERIOR WALLS AS REQUIRED BY IFC SECTION 3310 SHALL BE SUBMITTED AND APPROVED BY THE FIRE DEPARTMENT

TRAFFIC CONTROL NOTES

1. ALL APPLICABLE CITY PERMITS, INCLUDING BUT NOT LIMITED TO CLOSURE PERMITS, SHALL BE OBTAINED PRIOR TO ANY CONSTRUCTION WITHIN CITY R.O.W. OR LANE CLOSURES.
2. ALL TRAFFIC CONTROL SHALL BE IN ACCORDANCE WITH THE LATEST EDITION OF THE MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES (MUTCD).
3. PERMANENT SIGNING THAT CONVEYS A MESSAGE CONTRARY TO THE MESSAGE OF TEMPORARY SIGNING AND NOT APPLICABLE TO THE WORKING CONDITIONS SHALL BE COVERED BY THE CONTRACTOR WHEN DIRECTED BY THE CITY.
4. THE CONTRACTOR SHALL COORDINATE HIS TRAFFIC CONTROL WITH OTHER CONSTRUCTION PROJECTS IN THE AREA.
5. SIDEWALK CLOSED SIGNS REQUIRED FOR ALL SIDEWALK CLOSURES.
6. THE CONTRACTOR IS CAUTIONED NEITHER TO OBSTRUCT NOR REMOVE ANY EXISTING PAVEMENT, NOR TO DISTURB THE EXISTING TRAFFIC PATTERNS MORE THAN IS NECESSARY FOR THE PROPER EXECUTION OF THE WORK.
7. ALL SIGNING AND LANE STRIPING WILL NEED TO COMPLY WITH MUTCD. MAINTENANCE AND REPLACEMENT OF THE SIGNING AND STRIPING WILL BE THE RESPONSIBILITY OF THE APPLICANT.

PAVEMENT THICKNESS

1. SIDEWALKS	4" P.P.C.	
2. LIGHT DUTY PCC PAVEMENT	6" P.C.C.	
3. STANDARD DUTY PCC PAVEMENT	7" P.C.C.	
4. HEAVY DUTY PCC PAVEMENT	8" P.C.C.	

4121 NW URBANDALE DRIVE
URBANDALE, IOWA 50322
PHONE: (515) 369-4400

DRAFTED:
ENGINEER:

DATE
REVISIONS

CIVIL DESIGN ADVANTAGE
WAUKEE, IOWA

ACCESS SYSTEMS
DIMENSION PLAN

1055 SE OLSON DR.

DATE: 03/03/2022
SHEET NUMBER: C2.1
2111.901

FILE: H:\2021\2111901\DWG\2111901-SITE.DWG
FILE DATE: 3/2/22
PLOTTED BY: NICOLE HOAL
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COMMENT:
DNC:

GRADING NOTES

1. THE COMPLETION AND APPROVAL OF THE COSESCO PERMIT SHALL BE PROVIDED TO THE CITY OF WAUKEE BUILDING DIVISION AND STORM WATER DEPARTMENT PRIOR TO ANY GRADING ACTIVITIES.
2. CONTRACTOR SHALL STRIP ALL DELETERIOUS MATERIAL. THE TOP 8" OF TOPSOIL IS TO BE STOCKPILED AND RESPREAD AFTER GRADING IS COMPLETE. CONTRACTOR WILL BE RESPONSIBLE FOR PROVIDING A SUITABLE TOPSOIL STOCKPILE SITE.
3. EXCAVATION SHALL BE IN ACCORDANCE WITH ALL CITY OF WAUKEE STANDARD SPECIFICATIONS AND THE MOST RECENT EDITION OF THE SUDAS STANDARD SPECIFICATIONS, IF APPLICABLE.
4. MATCH EXISTING GRADES AT PROPERTY LINES AND/OR CONSTRUCTION LIMITS.
5. ALL SPOT ELEVATIONS ARE FORM GRADE (FG) OR TOP OF FINISHED SURFACES UNLESS OTHERWISE NOTED.
6. SITE SHALL BE GRADED TO PROVIDE POSITIVE DRAINAGE AWAY FROM BUILDINGS.
7. SLOPES IN PAVEMENT SHALL BE UNIFORM TO AVOID PONDING.
8. THE CONTRACTOR SHALL CONFINE HIS GRADING OPERATIONS TO WITHIN THE CONSTRUCTION LIMITS AND EASEMENTS SHOWN ON THE PLANS. ANY DAMAGE TO PROPERTIES OUTSIDE THE SITE BOUNDARY SHALL BE AT THE SOLE RESPONSIBILITY OF THE CONTRACTOR.
9. THE CONTRACTOR SHALL APPLY NECESSARY MOISTURE CONTROL TO THE CONSTRUCTION AREA AND HAUL ROADS TO PREVENT THE SPREAD OF DUST.
10. REFER TO SEPARATE STORM WATER POLLUTION PREVENTION PLAN FOR DETAILS ON EROSION CONTROL.
11. FINAL FINISH GRADING TO BE APPROVED BY THE ARCHITECT AND CIVIL ENGINEER. MATCH EXISTING GRADES AT THE INTERFACE OF NEW AND EXISTING GRADES OR PAVING.
12. CONSTRUCTION OPERATIONS SHALL PROTECT STORM SEWERS AND DRAINAGE WAYS FROM ALLOWNG SLURRY FROM CONCRETE OPERATIONS TO DISCHARGE OFFSITE.

PROPOSED BUILDING
MAIN FLOOR: 15,997 S.F.
UPPER FLOOR; 17,453 S.F.
TOTAL: 33,450 S.F.
FFE=1048.25

SEE ENLARGEMENT #1

SEE ENLARGEMENT #2

SEE ENLARGEMENT #3

SEE ENLARGEMENT #4

SE OLSON DRIVE

SE ALICE'S ROAD

SCALE
0' 10' 20' 40'

4121 NW URBANDALE DRIVE
URBANDALE, IOWA 50322
PHONE: (515) 369-4400

DATE	REVISIONS	ENGINEER:	DRAFTED:

CIVIL DESIGN ADVANTAGE
WAUKEE, IOWA

ACCESS SYSTEMS
GRADING PLAN

1055 SE OLSON DR.

DATE: 03/03/2022

SHEET NUMBER: C3.1

2111.901

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FILE DATE: 3/1/22
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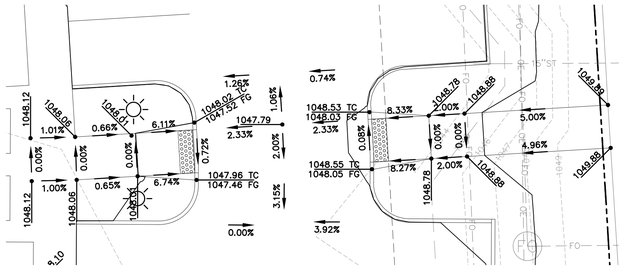
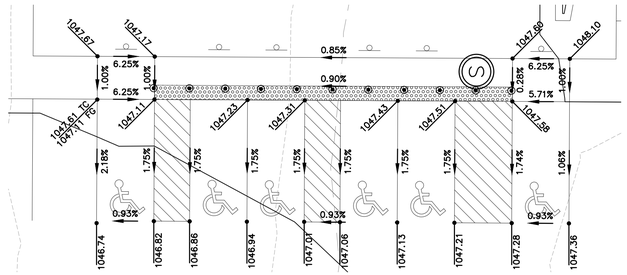


ENLARGEMENT #1



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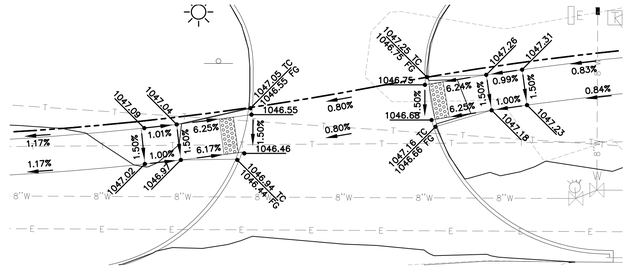
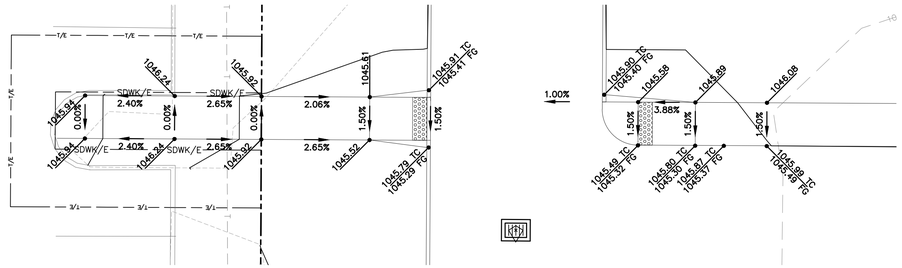


ENLARGEMENT #3



ENLARGEMENT #4

SCALE
0' 5' 10' 20'

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4121 NW URBANDALE DRIVE
URBANDALE, IOWA 50322
PHONE: (515) 369-4400

DATE
REVISIONS
ENGINEER:
DRAFTED:

CIVIL DESIGN ADVANTAGE

WAUKEE, IOWA

ACCESS SYSTEMS
GRADING PLAN

1055 SE OLSON DR.

DATE:
03/03/2022

SHEET NUMBER:
C3.2
2111.901

DISCHARGE POINT SUMMARY

DISCHARGE POINT #1 TO UNNAMED TRIBUTARY OF SUGAR CREEK ±2808 FT

TOTAL AREA DISTURBED TO DISCHARGE POINT	3.19 ACRES
STORAGE VOLUME REQUIRED (3.19 OF ACRES*3600 CU FT)	11,484 CU FT
VOLUME PROVIDED IN FILTER SOCK (146 LF @ 2.0 CU FT/LF OF SOCK)	292 CU FT
VOLUME PROVIDED IN SILT FENCE (1496 LF @ 10.0 CU FT/LF OF FENCE)	14,960 FT
TOTAL VOLUME PROVIDED	15,252 CU FT

STABILIZATION QUANTITIES

ITEM NO.	ITEM	UNIT	TOTAL
1	SILT FENCE	LF	1496
2	FILTER SOCK	LF	146
3	SEEDING, FERTILIZING, AND MULCHING	AC	1.22
4	INLET PROTECTION DEVICES	EA	12
5	CONCRETE WASHOUT PIT	EA	1
6	SOD (PERMANENT STABILIZATION)	AC	1.00

NOTES:

1. IF DEWATERING IS NEEDED FOR ANY REASON, DISCHARGE OF WATER OFFSITE IS TO CONFORM WITH THE GENERAL PERMIT #2 REQUIREMENT.
2. DISTURBED AREAS SHALL BE TEMPORARILY SEEDED OR MULCHED IMMEDIATELY WHENEVER CLEARING, GRADING, EXCAVATING, OR OTHER EARTH DISTURBING ACTIVITIES HAVE PERMANENTLY OR TEMPORARILY CEASED AND WILL NOT RESUME FOR A PERIOD EXCEEDING 14 CALENDAR DAYS.
3. STORM SEWERS AND DRAINAGE WAYS SHALL BE PROTECTED FROM CONCRETE SLURRY PRODUCED BY SAWCUTTING AND CONCRETE GRINDING.
4. SEEDING SHALL BE SUDAS TYPE 4 SEED MIX.

SWPPP LEGEND

- DRAINAGE ARROW (X.XX %)
- GRADING LIMITS
- FILTER SOCK
- SILT FENCE
- DITCH CHECK
- INLET PROTECTION
- PORTABLE RESTROOM (R)
- CONCRETE WASHOUT PIT
- UNDISTURBED AREA
- GRAVEL ENTRANCE
- STAGING AREA

N

SCALE 0' 10' 20' 40'

4121 NW URBANDALE DRIVE
URBANDALE, IOWA 50322
PHONE: (515) 369-4400

DRAFTED:

ENGINEER:

DATE

REVISIONS

CIVIL DESIGN ADVANTAGE

WAUKEE, IOWA

ACCESS SYSTEMS
EROSION & SEDIMENT CONTROL PLAN

1055 SE OLSON DR.

DATE: 03/03/2022

SHEET NUMBER: C3.3

2111.901

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UTILITY NOTES

1. REFER TO MECHANICAL, ELECTRICAL AND PLUMBING PLANS FOR UTILITY SERVICE SIZES AND EXACT LOCATIONS. REFER TO ELECTRICAL PLANS FOR ELECTRIC AND TELEPHONE SERVICE CONSTRUCTION DETAILS. REFER TO MECHANICAL PLANS FOR GAS SERVICE CONSTRUCTION DETAILS.
2. FIELD VERIFY ELEVATIONS AND LOCATIONS OF ALL CONNECTIONS TO EXISTING UTILITIES PRIOR TO COMMENCING CONSTRUCTION.
3. PROVIDE TEMPORARY SUPPORT FOR EXISTING UTILITY LINES THAT ARE ENCOUNTERED DURING CONSTRUCTION UNTIL BACKFILLING IS COMPLETE.
4. BACKFILL ALL UTILITY TRENCHES ACCORDING TO ALL CITY OF WAUKEE STANDARD SPECIFICATIONS AND THE MOST RECENT EDITION OF THE SUDAS STANDARD SPECIFICATIONS. MAINTAIN A MINIMUM OF 5.5' COVER OVER ALL WATERMAINS.
5. 5" STORZ FITTINGS ON ALL HYDRANTS INCLUDING ANY RELOCATED HYDRANTS.
6. ADJUST ALL MANHOLES AND INTAKES TO FINISHED GRADES. INSTALL CHIMNEY SEALS ON ANY ADJUSTED MANHOLES. ALL PROPOSED SANITARY MANHOLES ARE TO UTILIZE A TYPE 'A' CASTING.
7. ALL SANITARY SEWER AND WATER SERVICES SHALL BE CONSTRUCTED IN ACCORDANCE WITH THE CITY OF WAUKEE STANDARD SPECIFICATIONS FOR PUBLIC IMPROVEMENTS.
8. 18" MINIMUM VERTICAL CLEARANCE BETWEEN STORM SEWER AND SANITARY SEWER PIPES. 18" MINIMUM VERTICAL CLEARANCE BETWEEN SANITARY SEWER AND WATER MAIN. O-RING GASKET JOINTS ARE TO BE INSTALLED IN SITUATIONS LESS THAN 18" BELOW OR ANY TIME SANITARY OR STORM SEWER CROSSES OVER WATERMAIN. SEE SUDAS STANDARD SPECIFICATION DIVISION 5 SECTION 5010-3.07.
9. MAINTAIN A MINIMUM OF 10' HORIZONTAL SEPARATION BETWEEN SANITARY SEWER LINES AND WATER MAINS.
10. WHERE PUBLIC UTILITY 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 OWNERS OF THOSE UTILITIES PRIOR TO THE BEGINNING OF ANY CONSTRUCTION. THE CONTRACTOR SHALL AFFORD 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 CONTRACTORS RESPONSIBILITY TO DETERMINE THEIR EXISTENCE AND EXACT LOCATIONS 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 IS REQUIRED TO UTILIZE THE UTILITY ONE-CALL SERVICE AT 800-292-8989 AT LEAST 48 HOURS PRIOR TO EXCAVATING ANYWHERE ON THE PROJECT.
11. ALL WATERMAIN WORK, PUBLIC OR PRIVATE SHALL BE DONE IN ACCORDANCE WITH THE CITY OF WAUKEE STANDARD SPECIFICATIONS.
12. THE GENERAL CONTRACTOR SHALL BE RESPONSIBLE FOR COORDINATION OF WORK OF ALL SUBCONTRACTOR(S) INVOLVED IN THE PROJECT.
13. PRIVATE UTILITIES TO BE INSTALLED PER THE CITY OF WAUKEE STANDARD SPECIFICATIONS AND THE LATEST VERSION OF THE UNIFORM PLUMBING CODE. CONTACT BUILDING INSPECTION A MINIMUM OF 24 HOURS IN ADVANCE FOR UTILITY INSTALLATION INSPECTIONS. ALL APPLICABLE UTILITY COMPANIES SHALL BE CONTACTED 48 HOURS PRIOR TO ANY WORK BEING STARTED.
14. CONTRACTOR SHALL PREVENT ENTRY OF MUD, DIRT, DEBRIS AND OTHER MATERIAL INTO NEW AND EXISTING SEWER SYSTEMS. SHOULD ANY CONTAMINATION OCCUR DURING CONSTRUCTION, THE CONTRACTOR SHALL CLEAN AT NO COST TO THE OWNER. INSTALL SEDIMENT CONTROLS AT ALL PERMANENT STORM SEWER INLETS. DROP DOWN INLET PROTECTION IS REQUIRED FOR PUBLIC STREETS.
15. ALL UTILITY TIE-INS TO EXISTING PUBLIC UTILITIES SHOULD BE COORDINATED WITH THE CITY OF WAUKEE ENGINEERING DEPARTMENT AND REQUIRES 48 HOUR NOTICE.
16. FIRE DEPARTMENT CONNECTION WILL BE 2 – 2 1/2" CONNECTIONS WITH LOCKING KNOX CAPS.

REMOVE & RELOCATE EXISTING HYDRANT
ADJUST STRUCTURE TO FINISHED GRADE
TRANSFORMER PAD (COORDINATE WITH LOCAL UTILITY PROVIDER)
GENERATOR PAD (COORDINATE WITH LOCAL UTILITY PROVIDER)
GENERATOR
6" TEE
RELOCATED HYDRANT
ST-6 SW-511 INTK RIM=1045.77 FL 18" (S)=1042.54
AREA LIGHT (TYP)
L-6 164 LF OF 18" HDPE @ 0.30%
ST-5 SW-511 INTK RIM=1044.99 FL 18" (N)=1042.05 FL 18" (S)=1041.95
L-5 64 LF OF 18" HDPE @ 0.30%
ST-3 HDPE INTAKE BASIN 30" DIA. W/HEAVY DUTY SOLID GRATE RIM=1045.31 FL 18" (S)=1041.33 FL 15" (W)=1041.33
ST-4 HDPE INTAKE BASIN 30" DIA. W/HEAVY DUTY SOLID GRATE INSTALL A 12" WEIR PLATE TOP OF WEIR=1042.76 RIM=1045.38 FL 18" (N)=1041.76 FL 18" (E)=1041.76 SUMP=1039.76
UNDERGROUND DETENTION CHAMBER SYSTEM. SEE DETAILS ON SHEETS C5.1 & C5.2
CRITICAL CROSSING BOTTOM OF STORM=1043.58 TOP OF WATER=1041.77
ST-7 HDPE INTAKE BASIN 30" DIA. W/HEAVY DUTY SOLID GRATE INSTALL A 12" WEIR PLATE TOP OF WEIR = 1042.76 RIM=1046.77 FL 24" (SE)=1041.86 FL 24" (W)=1041.76 SUMP=1039.76
L-8 55 LF OF 24" HDPE @ 0.30%
ST-1 HDPE INTAKE BASIN 30" DIA. W/STANDARD GRATE W/A RESTRICTOR PLATE WITH 16.5" DIA. OPENING, ON SOUTH OUTLET RIM=1045.15 FL 24" (NE)=1041.0 FL 24" (SW)=1040.96 SUMP=1038.96
L-2 40 LF OF 24" RCP @ 0.50%
ST-2 SW-511 INTK RIM=1045.13 FL 18" (N)=1041.26 FL 24" (SW)=1041.21
ST-8 SW-511 INTK RIM=1046.16 FL 18" (E)=1042.12 FL 24" (NW)=1042.02
L-1 50 LF OF 24" RCP @ 0.50%
EX-EX12 EX TYPE M-A INTK RIM=1044.63 FL 24" (NE)=1040.71 EX FL 21" (S)=1040.61 (VERIFY)
SE OLSON DRIVE

ST-10 SW-511 INTK RIM=1046.25 FL 18" (S)=1043.40
45° BENDS
HYDRANT ASSEMBLY (TYP)
6"X2" REDUCING WYE
CURB STOP
6" GATE VALVE
END 2" DOMESTIC WATER SERVICE 5' FROM BUILDING
END 6" FIRE SERVICE 5' FROM BUILDING
FIRE RISER ROOM
FL 6" (E)=1044.25
PROPOSED BUILDING
MAIN FLOOR: 15,997 S.F.
UPPER FLOOR; 17,453 S.F.
TOTAL: 33,450 S.F.
FFE=1048.25
FL 8" (E)=1044.25
L-10 290 LF OF 18" HDPE @ 0.25%
FL 4" (E)=1044.25
P-5 10 LF OF 6" PVC @ 1.00%
S-4 BUILDING CONNECTION FL 6" (E)=1042.25
S-2 SW-301 48" MH RIM=1047.55 FL 6" (W)=1042.15 FL 6" (S)=1042.05
FL 6" (E)=1044.25
CRITICAL CROSSING BOTTOM OF STORM=1043.64 TOP OF SANITARY=1042.14
P-3 124 LF OF 6" PVC @ 3.57%
FL 6" (S)=1044.25
CRITICAL CROSSING BOTTOM OF WATER=1040.92 TOP OF SANITARY=1039.30 FIRE DEPARTMENT CONNECTION
CRITICAL CROSSING BOTTOM OF STORM=1042.14 TOP OF WATER=1040.64
L-9 165 LF OF 18" HDPE @ 0.30%
45° BENDS
45° BEND
ST-9 SW-511 INTK RIM=1046.17 FL 18" (N)=1042.67 FL 18" (W)=1042.62
CRITICAL CROSSING BOTTOM OF STORM=1042.38 TOP OF SANITARY=1039.03
S-1 CONNECT TO EXISTING STUB RIM=1038.16 FL 6" (N)=1037.62 (VERIFY) EX FL 6" (S)=1037.62 (VERIFY)
CONNECT TO EXISTING W/8"X6" REDUCER
ADJUST STRUCTURE TO FINISHED GRADE
HYDRANT ASSEMBLY (TYP)
TEE (TYP)
ST-EX36 EX SW-512 24" INTK RIM=1050.54
CAP EXISTING 15" PIPE
SE ALICE'S ROAD

150' HYDRANT RADIUS

N
SCALE 0' 10' 20' 40'

4121 NW URBANDALE DRIVE
URBANDALE, IOWA 50322
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DRAFTED:
ENGINEER:

CIVIL DESIGN ADVANTAGE
WAUKEE, IOWA

ACCESS SYSTEMS
UTILITY PLAN

1055 SE OLSON DR.

DATE: 03/03/2022
SHEET NUMBER: C4.1
2111.901

DATE	REVISIONS

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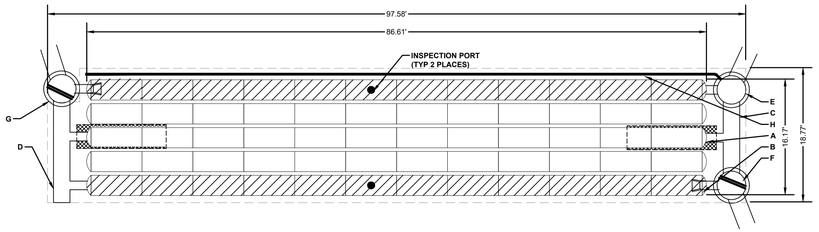
PROPOSED LAYOUT		PROPOSED ELEVATIONS	
60	STORMTECH SC-310 CHAMBERS	MAXIMUM ALLOWABLE GRADE (TOP OF PAVEMENT/UNPAVED):	1051.01
10	STORMTECH SC-310 END CAPS	MINIMUM ALLOWABLE GRADE (UNPAVED WITH TRAFFIC):	1045.01
6	STONE ABOVE (in)	MINIMUM ALLOWABLE GRADE (UNPAVED NO TRAFFIC):	1044.51
6	STONE BELOW (in)	MINIMUM ALLOWABLE GRADE (TOP OF RIGID CONCRETE PAVEMENT):	1044.51
40	STONE VOID	MINIMUM ALLOWABLE GRADE (BASE OF FLEXIBLE PAVEMENT):	1044.51
2221	INSTALLED SYSTEM VOLUME (CF) (PERIMETER STONE INCLUDED) (COVER STONE INCLUDED) (BASE STONE INCLUDED)	TOP OF STONE:	1043.51
		TOP OF SC-310 CHAMBER:	1043.01
		24" x 12" BOTTOM MANIFOLD INVERT (12" PIPE):	1041.76
		24" x 12" BOTTOM MANIFOLD INVERT (12" PIPE):	1041.76
2101	VOLUME (CF) ABOVE ELEV = 1041.33	12" ISOLATOR ROW PLUS INVERT:	1041.76
1810	SYSTEM AREA (SF)	12" ISOLATOR ROW PLUS INVERT:	1041.76
232.7	SYSTEM PERIMETER (ft)	12" BOTTOM CONNECTION INVERT:	1041.76
		BOTTOM OF SC-310 CHAMBER:	1041.68
		UNDERDRAIN INVERT:	1041.33
		BOTTOM OF STONE:	1041.18
		24" x 12" BOTTOM MANIFOLD INVERT (24" PIPE):	1041.76
		24" x 12" BOTTOM MANIFOLD INVERT (24" PIPE):	1041.76



ISOLATOR ROW PLUS
(SEE DETAIL/TYP 2 PLACES)

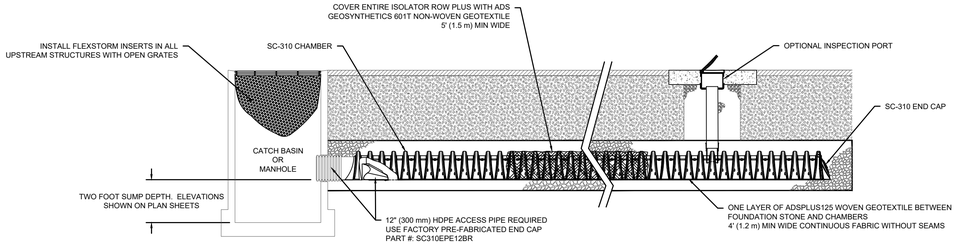
PLACE MINIMUM 12.50' OF ADSPLUS125 WOVEN GEOTEXTILE OVER BEDDING STONE AND UNDERNEATH CHAMBER FEET FOR SCOUR PROTECTION AT ALL CHAMBER INLET ROWS

BED LIMITS

NOTES

- MANIFOLD SIZE TO BE DETERMINED BY SITE DESIGN ENGINEER. SEE TECH NOTE #6.32 FOR MANIFOLD SIZING GUIDANCE.
- DUE TO THE ADAPTATION OF THIS CHAMBER SYSTEM TO SPECIFIC SITE AND DESIGN CONSTRAINTS, IT MAY BE NECESSARY TO CUT AND COUPLE ADDITIONAL PIPE TO STANDARD MANIFOLD COMPONENTS IN THE FIELD.
- THE SITE DESIGN ENGINEER MUST REVIEW ELEVATIONS AND IF NECESSARY ADJUST GRADING TO ENSURE THE CHAMBER COVER REQUIREMENTS ARE MET.
- THIS CHAMBER SYSTEM WAS DESIGNED WITHOUT SITE-SPECIFIC INFORMATION ON SOIL CONDITIONS OR BEARING CAPACITY. THE SITE DESIGN ENGINEER IS RESPONSIBLE FOR DETERMINING THE SUITABILITY OF THE SOIL AND PROVIDING THE BEARING CAPACITY OF THE INSITU SOILS. THE BASE STONE DEPTH MAY BE INCREASED OR DECREASED ONCE THIS INFORMATION IS PROVIDED.
- **NOT FOR CONSTRUCTION:** THIS LAYOUT IS FOR DIMENSIONAL PURPOSES ONLY TO PROVE CONCEPT & THE REQUIRED STORAGE VOLUME CAN BE ACHIEVED ON SITE.

4 STORMTECH SC-310 CHAMBER SYSTEM
NOT TO SCALE



SC-310 ISOLATOR ROW PLUS DETAIL
NTS

INSPECTION & MAINTENANCE

STEP 1) INSPECT ISOLATOR ROW PLUS FOR SEDIMENT
- A. INSPECTION PORTS (IF PRESENT)
  - A.1. REMOVE/OPEN LID ON NYLOPLAST INLINE DRAIN
  - A.2. REMOVE AND CLEAN FLEXSTORM FILTER IF INSTALLED
  - A.3. USING A FLASHLIGHT AND STADIA ROD, MEASURE DEPTH OF SEDIMENT AND RECORD ON MAINTENANCE LOG
  - A.4. LOWER A CAMERA INTO ISOLATOR ROW PLUS FOR VISUAL INSPECTION OF SEDIMENT LEVELS (OPTIONAL)
  - A.5. IF SEDIMENT IS AT, OR ABOVE, 3" (80 mm) PROCEED TO STEP 2. IF NOT, PROCEED TO STEP 3.
- B. ALL ISOLATOR PLUS ROWS
  - B.1. REMOVE COVER FROM STRUCTURE AT UPSTREAM END OF ISOLATOR ROW PLUS
  - B.2. USING A FLASHLIGHT, INSPECT DOWN THE ISOLATOR ROW PLUS THROUGH OUTLET PIPE
    - i) MIRRORS ON POLES OR CAMERAS MAY BE USED TO AVOID A CONFINED SPACE ENTRY
    - ii) FOLLOW OSHA REGULATIONS FOR CONFINED SPACE ENTRY IF ENTERING MANHOLE
  - B.3. IF SEDIMENT IS AT, OR ABOVE, 3" (80 mm) PROCEED TO STEP 2. IF NOT, PROCEED TO STEP 3.

STEP 2) CLEAN OUT ISOLATOR ROW PLUS USING THE JETVAC PROCESS
- A. A FIXED CULVERT CLEANING NOZZLE WITH REAR FACING SPREAD OF 45° (1.1 m) OR MORE IS PREFERRED
- B. APPLY MULTIPLE PASSES OF JETVAC UNTIL BACKFLUSH WATER IS CLEAN
- C. VACUUM STRUCTURE SUMP AS REQUIRED

STEP 3) REPLACE ALL COVERS, GRATES, FILTERS, AND LIDS; RECORD OBSERVATIONS AND ACTIONS.

STEP 4) INSPECT AND CLEAN BASINS AND MANHOLES UPSTREAM OF THE STORMTECH SYSTEM.

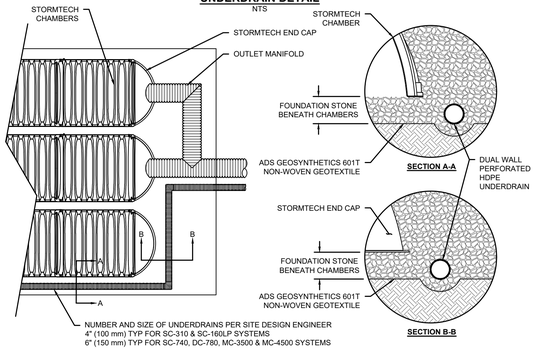
NOTES

1. INSPECT EVERY 6 MONTHS DURING THE FIRST YEAR OF OPERATION. ADJUST THE INSPECTION INTERVAL BASED ON PREVIOUS OBSERVATIONS OF SEDIMENT ACCUMULATION AND HIGH WATER ELEVATIONS.
2. CONDUCT JETTING AND VACTORING ANNUALLY OR WHEN INSPECTION SHOWS THAT MAINTENANCE IS NECESSARY.

3 SC-310 TECHNICAL SPECIFICATION
NOT TO SCALE

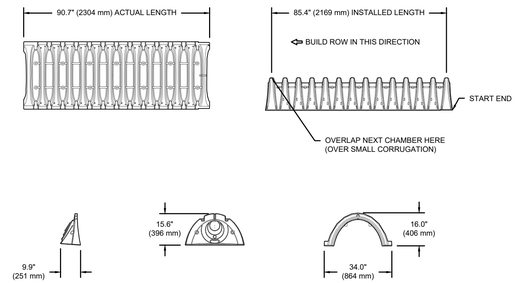
	PART TYPE	ITEM ON LAYOUT	DESCRIPTION	*INVERT	MAX FLOW
*INVERT ABOVE BASE OF CHAMBER	PREFABRICATED END CAP	A	12" BOTTOM PREFABRICATED END CAP. PART#: SC310EPE12B / TYP OF ALL 12" BOTTOM CONNECTIONS AND ISOLATOR PLUS ROWS	0.90"	
	PREFABRICATED END CAP	B	12" BOTTOM PREFABRICATED END CAP. PART#: SC310EPE12BR / TYP OF ALL 12" ISOLATOR ROW PLUS CONNECTIONS	0.90"	
	MANIFOLD	C	24" x 12" ADS N-12 (24" PIPE) 24" x 12" ADS N-12 (12" PIPE)	0.90" 0.90"	
	MANIFOLD	D	24" x 12" ADS N-12 (24" PIPE) 24" x 12" ADS N-12 (12" PIPE)	0.90" 0.90"	
	NYLOPLAST STRUCTURE	E	OCS (DESIGN BY ENGINEER / PROVIDED BY OTHERS)		9.0 CFS OUT
	NYLOPLAST STRUCTURE W/WEIR	F	(DESIGN BY ENGINEER / PROVIDED BY OTHERS)		6.2 CFS IN
	NYLOPLAST STRUCTURE W/WEIR	G	(DESIGN BY ENGINEER / PROVIDED BY OTHERS)		6.2 CFS IN
	UNDERDRAIN	H	6" ADS N-12 DUAL WALL PERFORATED HDPE UNDERDRAIN		

UNDERDRAIN DETAIL
NTS



2 STORMTECH SC-310 CHAMBER SYSTEM
NOT TO SCALE

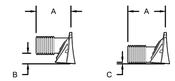
SC-310 TECHNICAL SPECIFICATION
NTS



NOMINAL CHAMBER SPECIFICATIONS

SIZE (W X H X INSTALLED LENGTH)	34.0" X 16.0" X 85.4"	(864 mm X 406 mm X 2169 mm)
CHAMBER STORAGE	14.7 CUBIC FEET	(0.42 m³)
MINIMUM INSTALLED STORAGE*	31.0 CUBIC FEET	(0.88 m³)
WEIGHT	35.0 lbs.	(16.8 kg)

*ASSUMES 6" (152 mm) ABOVE, BELOW, AND BETWEEN CHAMBERS



PRE-FAB STUB AT BOTTOM OF END CAP WITH FLAMP END WITH "BR"
PRE-FAB STUBS AT BOTTOM OF END CAP FOR PART NUMBERS ENDING WITH "B"
PRE-FAB STUBS AT TOP OF END CAP FOR PART NUMBERS ENDING WITH "T"
PRE CORED END CAPS END WITH "PC"

PART #	STUB	A	B	C
SC310EPE06T / SC310EPE06TPC	6" (150 mm)	9.6" (244 mm)	5.8" (147 mm)	---
SC310EPE06B / SC310EPE06BPC			---	0.5" (13 mm)
SC310EPE08T / SC310EPE08TPC	8" (200 mm)	11.9" (302 mm)	3.5" (89 mm)	---
SC310EPE08B / SC310EPE08BPC			---	0.6" (15 mm)
SC310EPE10T / SC310EPE10TPC	10" (250 mm)	12.7" (323 mm)	1.4" (36 mm)	---
SC310EPE10B / SC310EPE10BPC			---	0.7" (18 mm)
SC310EPE12B	12" (300 mm)	13.5" (343 mm)	---	0.9" (23 mm)
SC310EPE12BR	12" (300 mm)	13.5" (343 mm)	---	0.9" (23 mm)

ALL STUBS, EXCEPT FOR THE SC310EPE12B ARE PLACED AT BOTTOM OF END CAP SUCH THAT THE OUTSIDE DIAMETER OF THE STUB IS FLUSH WITH THE BOTTOM OF THE END CAP. FOR ADDITIONAL INFORMATION CONTACT STORMTECH AT 1-888-892-2694.

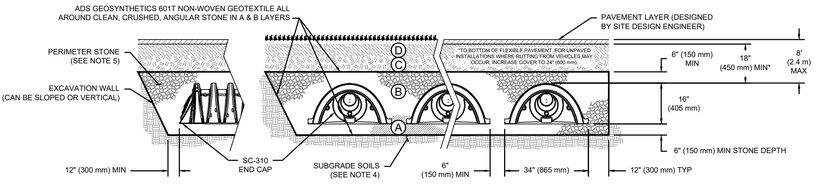
* FOR THE SC310EPE12B THE 12" (300 mm) STUB LIES BELOW THE BOTTOM OF THE END CAP APPROXIMATELY 0.25" (6 mm). BACKFILL MATERIAL SHOULD BE REMOVED FROM BELOW THE N-12 STUB SO THAT THE FITTING SITS LEVEL.

NOTE: ALL DIMENSIONS ARE NOMINAL

ACCEPTABLE FILL MATERIALS: STORMTECH SC-310 CHAMBER SYSTEMS

	MATERIAL LOCATION	DESCRIPTION	AASHTO MATERIAL CLASSIFICATIONS	COMPACTION / DENSITY REQUIREMENT
D	**FINAL FILL:** FILL MATERIAL FOR LAYER 'D' STARTS FROM THE TOP OF THE 'C' LAYER TO THE BOTTOM OF FLEXIBLE PAVEMENT OR UNPAVED FINISHED GRADE ABOVE. NOTE THAT PAVEMENT SUBBASE MAY BE PART OF THE 'D' LAYER.	ANY SOIL/ROCK MATERIALS, NATIVE SOILS, OR PER ENGINEER'S PLANS. CHECK PLANS FOR PAVEMENT SUBGRADE REQUIREMENTS.	N/A	PREPARE PER SITE DESIGN ENGINEER'S PLANS. PAVED INSTALLATIONS MAY HAVE STRINGENT MATERIAL AND PREPARATION REQUIREMENTS.
C	**INITIAL FILL:** FILL MATERIAL FOR LAYER 'C' STARTS FROM THE TOP OF THE EMBEDMENT STONE ('B' LAYER) TO 18" (450 mm) ABOVE THE TOP OF THE CHAMBER. NOTE THAT PAVEMENT SUBBASE MAY BE A PART OF THE 'C' LAYER.	GRANULAR WELL-GRADED SOIL/AGGREGATE MIXTURES, <35% FINES OR PROCESSED AGGREGATE. MOST PAVEMENT SUBBASE MATERIALS CAN BE USED IN LIEU OF THIS LAYER.	AASHTO M145[1] A-1, A-2-4, A-3 OR AASHTO M43[1] 3, 357, 4, 467, 5, 56, 57, 6, 67, 68, 7, 78, 8, 89, 9, 10	BEGIN COMPACTIONS AFTER 12" (300 mm) OF MATERIAL OVER THE CHAMBERS IS REACHED. COMPACT ADDITIONAL LAYERS IN 6" (150 mm) MAX LIFTS TO A MIN. 95% PROCTOR DENSITY FOR WELL GRADED MATERIAL AND 95% RELATIVE DENSITY FOR PROCESSED AGGREGATE MATERIALS. ROLLER GROSS VEHICLE WEIGHT NOT TO EXCEED 12,000 lbs (53 kN). DYNAMIC FORCE NOT TO EXCEED 20,000 lbs (89 kN).
B	**EMBEDMENT STONE:** FILL SURROUNDING THE CHAMBERS FROM THE FOUNDATION STONE ('A' LAYER) TO THE 'C' LAYER ABOVE.	CLEAN, CRUSHED, ANGULAR STONE	AASHTO M43[1] 3, 357, 4, 467, 5, 56, 57	NO COMPACTION REQUIRED.
A	**FOUNDATION STONE:** FILL BELOW CHAMBERS FROM THE SUBGRADE UP TO THE FOOT (BOTTOM) OF THE CHAMBER.	CLEAN, CRUSHED, ANGULAR STONE	AASHTO M43[1] 3, 357, 4, 467, 5, 56, 57	PLATE COMPACT OR ROLL TO ACHIEVE A FLAT SURFACE.[2,3]

PLEASE NOTE:
1. THE LISTED AASHTO DESIGNATIONS ARE FOR GRADATIONS ONLY. THE STONE MUST ALSO BE CLEAN, CRUSHED, ANGULAR. FOR EXAMPLE, A SPECIFICATION FOR #4 STONE WOULD STATE: "CLEAN, CRUSHED, ANGULAR NO. 4 (AASHTO M43) STONE".
2. STORMTECH COMPACTION REQUIREMENTS ARE MET FOR 'A' LOCATION MATERIALS WHEN PLACED AND COMPACTED IN 6" (150 mm) (MAX) LIFTS USING TWO FULL COVERAGES WITH A VIBRATORY COMPACTOR.
3. WHERE INFILTRATION SURFACES MAY BE COMPROMISED BY COMPACTION, FOR STANDARD DESIGN LOAD CONDITIONS, A FLAT SURFACE MAY BE ACHIEVED BY RAKING OR DRAGGING WITHOUT COMPACTION EQUIPMENT. FOR SPECIAL LOAD DESIGNS, CONTACT STORMTECH FOR COMPACTION REQUIREMENTS.
4. ONCE LAYER 'C' IS PLACED, ANY SOIL/MATERIAL CAN BE PLACED IN LAYER 'D' UP TO THE FINISHED GRADE. MOST PAVEMENT SUBBASE SOILS CAN BE USED TO REPLACE THE MATERIAL REQUIREMENTS OF LAYER 'C' OR 'D' AT THE SITE DESIGN ENGINEER'S DISCRETION.



NOTES:

1. CHAMBERS SHALL MEET THE REQUIREMENTS OF ASTM F2922 (POLETHYLENE) OR ASTM F2418-16a (POLYPROPYLENE), "STANDARD SPECIFICATION FOR CORRUGATED WALL STORMWATER COLLECTION CHAMBERS".
2. SC-310 CHAMBERS SHALL BE DESIGNED IN ACCORDANCE WITH ASTM F2787 "STANDARD PRACTICE FOR STRUCTURAL DESIGN OF THERMOPLASTIC CORRUGATED WALL STORMWATER COLLECTION CHAMBERS".
3. THE SITE DESIGN ENGINEER IS RESPONSIBLE FOR ASSESSING THE BEARING RESISTANCE (ALLOWABLE BEARING CAPACITY) OF THE SUBGRADE SOILS AND THE DEPTH OF FOUNDATION STONE WITH CONSIDERATION FOR THE RANGE OF EXPECTED SOIL MOISTURE CONDITIONS.
4. PERIMETER STONE MUST BE EXTENDED HORIZONTALLY TO THE EXCAVATION WALL FOR BOTH VERTICAL AND SLOPED EXCAVATION WALLS.
5. REQUIREMENTS FOR HANDLING AND INSTALLATION:
   - TO MAINTAIN THE WIDTH OF CHAMBERS DURING SHIPPING AND HANDLING, CHAMBERS SHALL HAVE INTEGRAL, INTERLOCKING STACKING LUGS.
   - TO ENSURE A SECURE JOINT DURING INSTALLATION AND BACKFILL, THE HEIGHT OF THE CHAMBER JOINT SHALL NOT BE LESS THAN 2".
   - TO ENSURE THE INTEGRITY OF THE ARCH SHAPE DURING INSTALLATION, a) THE ARCH STIFFNESS CONSTANT AS DEFINED IN SECTION 6.2.8 OF ASTM F2922 SHALL BE GREATER THAN OR EQUAL TO 400 LBS/IN/IN. AND b) TO RESIST CHAMBER DEFORMATION DURING INSTALLATION AT ELEVATED TEMPERATURES (ABOVE 73° F / 23° C), CHAMBERS SHALL BE PRODUCED FROM REFLECTIVE GOLD OR YELLOW COLORS.

1 STORMTECH SC-310 CHAMBER SYSTEM
NOT TO SCALE

4121 NW URBANDALE DRIVE
URBANDALE, IOWA 50322
PHONE: (515) 369-4400

DATE
REVISIONS
DRAFTED:
ENGINEER:

CIVIL DESIGN ADVANTAGE
WAUKEE, IOWA

ACCESS SYSTEMS
DETAILS

1055 SE OLSON DR.

DATE:
03/03/2022
SHEET NUMBER:
C5.1
2111.901

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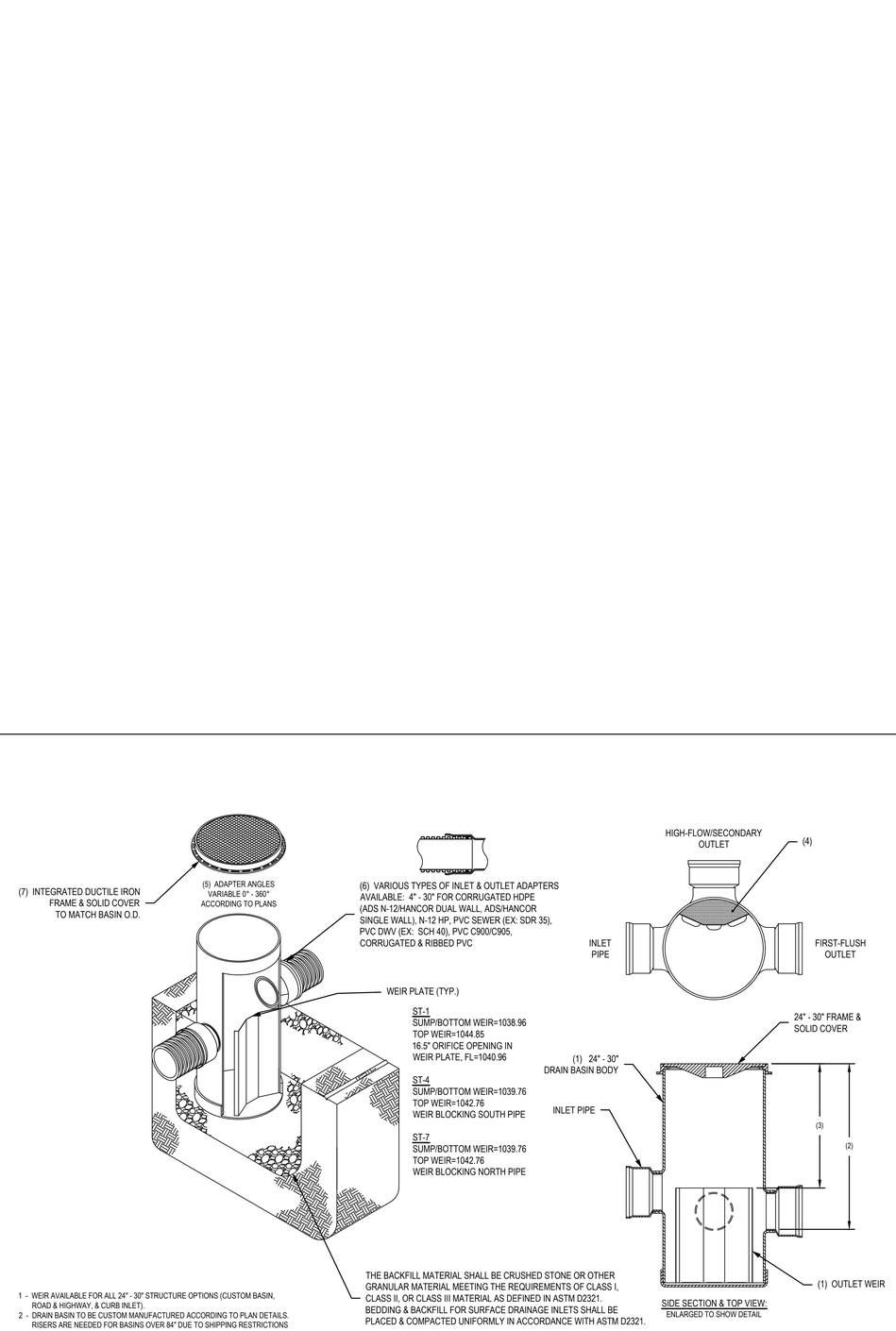

1 - WEIR AVAILABLE FOR ALL 24" - 30" STRUCTURE OPTIONS (CUSTOM BASIN, ROAD & HIGHWAY, & CURB INLET).
2 - DRAIN BASIN TO BE CUSTOM MANUFACTURED ACCORDING TO PLAN DETAILS. RISERS ARE NEEDED FOR BASINS OVER 84" DUE TO SHIPPING RESTRICTIONS SEE DRAWING NO. 7001-110-065.
3 - HEIGHT OF WEIR TO BE DETERMINED BY ENGINEER. **WEIR HEIGHT CANNOT EXCEED 84" DUE TO MANUFACTURING AND SHIPPING RESTRICTIONS.**
4 - WEIR MANUFACTURED TO MINIMIZE LOSS OF OUTLET PIPE OPEN AREA.
5 - ADAPTERS CAN BE MOUNTED ON ANY ANGLE 0° TO 360°. TO DETERMINE MINIMUM ANGLE BETWEEN ADAPTERS SEE DRAWING NO. 7001-110-012.
6 - DRAINAGE CONNECTION STUB JOINT TIGHTNESS SHALL CONFORM TO ASTM D3212 FOR CORRUGATED HDPE (ADS N-12/HANCOR DUAL WALL), N-12 HP, & PVC SEWER (4" - 24").
7 - FRAMES, GRATES, COVERS, HOODS, & BASE PLATES SHALL BE DUCTILE IRON PER ASTM A536 GRADE 70-50-05.

1 NYLOPLAST DRAIN BASIN WITH WEIR (ST-1)
NOT TO SCALE

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URBANDALE, IOWA 50322
PHONE: (515) 369-4400

ENGINEER: | DRAFTED:

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WAUKEE, IOWA

ACCESS SYSTEMS
DETAILS

1055 SE OLSON DR.

DATE: 03/03/2022

SHEET NUMBER: **C5.2**

2111.901

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LANDSCAPE NOTES

1. LOCATE ALL UTILITIES BEFORE ANY PLANTING BEGINS.
2. THE MOST RECENT EDITION OF THE SUDAS STANDARD SPECIFICATIONS AND ALL CITY SUPPLEMENTALS, IF APPLICABLE, SHALL APPLY TO ALL WORK ON THIS PROJECT UNLESS OTHERWISE NOTED.
3. TYPE, SIZE, AND QUALITY OF PLANT MATERIAL SHALL CONFORM TO THE MOST CURRENT EDITION OF THE AMERICAN STANDARD FOR NURSERY STOCK ANSI Z60.1
4. ALL PLANT MATERIAL SHALL BE HEALTHY SPECIMENS WITHOUT DEFORMITIES, VOIDS AND OPEN SPACES, WITH WELL DEVELOPED BRANCH AND ROOT SYSTEMS; TRUE TO HEIGHT, SHAPE AND CHARACTER OF GROWTH OF THE SPECIES OR VARIETY.
5. SOD ALL DISTURBED AREAS AS DIRECTED BY OWNER.
6. BACKFILL TO TOP OF CURB. (MINUS 1 1/2" FOR SOD, IF REQ.)
7. WEED PREVENTER (PRE-EMERGENT) SHALL BE SPREAD OVER SOIL AFTER PLANTING AND BEFORE MULCHING IN ALL PLANTING BEDS PER MANUFACTURER'S RECOMMENDATIONS.
8. SHREDDED HARDWOOD MULCH SHALL BE PLACED AROUND ALL TREES, SHRUBS AND IN ALL PLANTING BEDS TO A (MIN) DEPTH OF 3".
9. ALL EDGING SHALL BE SPADE CUT EDGE.
10. PLANT QUANTITIES ARE SHOWN FOR INFORMATION ONLY, THE DRAWING SHALL PREVAIL IF ANY CONFLICTS ARISE.
11. ALL DEBRIS SPILLED IN THE PUBLIC R.O.W. SHALL BE PICKED UP BY THE CONTRACTOR AT THE END OF EACH WORK DAY.
12. CONTRACTOR SHALL WARRANTY ALL PLANT MATERIALS FOR A PERIOD OF ONE YEAR FROM DATE OF INSTALLATION.
13. CONTRACTOR SHALL PROVIDE IRRIGATION DESIGN TO OWNER, IF REQUESTED, FOR APPROVAL.

OPEN SPACE REQUIREMENTS

SITE AREA:	3.08 AC. (133,947 SF)
OPEN SPACE	
REQUIRED:	13,395 SF (10%)
PROVIDED:	50,657 SF (38%)
LANDSCAPING REQUIRED	
1 TREE/1,500 SF OF REQUIRED OPEN SPACE:	9 TREES
1 SHRUB/1,000 SF OF REQUIRED OPEN SPACE:	14 SHRUBS
LANDSCAPING PROVIDED	
TREES:	15 TREES
SHRUBS:	28 SHRUBS

PARKING LANDSCAPE REQUIREMENTS

FRONTAGE (INCLUSIVE OF DRIVEWAYS)

SE OLSON DRIVE:	329'
SE ALICE ROAD:	395'

REQUIRED
(1 OVERSTORY TREES/ 40 LF OF PARKING FRONTAGE)

SE OLSON DRIVE:	9 TREES
SE ALICE ROAD:	10 TREES

PROVIDED

SE OLSON DRIVE:	9 TREES
SE ALICE ROAD:	10 TREES

BUFFER (NORTH) 131 LF
REQUIRED

CONIFEROUS TREES (3/100 LF):	4 TREES
UNDERSTORY TREES (4/1,00 LF):	6 TREES

PROVIDED

CONIFEROUS TREES:	4 TREES
UNDERSTORY TREES:	6 TREES

PLANT SCHEDULE

EVERGREEN TREES	QTY	COMMON NAME	BOTANICAL NAME	CONDITION AND SIZE	CAL
PD	4	Black Hills Spruce	Picea glauca 'Densata'	B&B	6' HEIGHT
DECIDUOUS TREES	QTY	COMMON NAME	BOTANICAL NAME	CONDITION AND SIZE	CAL
AG	9	Green Column Maple	Acer nigrum 'Greencolumn'	B&B	2"
BJ	14	Parkland Pillar Asian White Birch	Betula platyphylla 'Jefpark' TM	B&B	2"
GS	15	Skyline Honey Locust	Gleditsia triacanthos 'Skyline'	B&B	2"
PC	6	Chanticleer Pear	Pyrus calleryana 'Chanticleer'	B&B	1.5"
PL	10	Chanticleer Callery Pear	Pyrus calleryana 'Chanticleer'	B&B	1.5"
SHRUBS	QTY	COMMON NAME	BOTANICAL NAME	CONDITION AND SIZE	
HH	34	Happy Returns Daylily	Hemerocallis x 'Happy Returns'	1 GAL	
JF	9	Sea Green Juniper	Juniperus chinensis 'Sea Green'	3 GAL	
JO	6	Grey Owl Juniper	Juniperus virginiana 'Grey Owl'	3 GAL	
JP	23	Dwarf Japanese Garden Juniper	Juniperus procumbens 'Nana'	3 GAL	
NW	8	Walker's Low Catmint	Nepeta x faassenii 'Walker's Low'	3 GAL	
PA	115	Blue Steel Russian Sage	Perovskia atriplicifolia 'Blue Steel'	3 GAL	
PP	5	Pink Beauty Bush Cinquefoil	Potentilla fruticosa 'Pink Beauty'	3 GAL	
SA	5	Angelina Sedum	Sedum rupestre 'Angelina'	1 GAL	
SM	8	Dwarf Korean Lilac	Syringa meyeri 'Palibin'	3 GAL	
VC	8	Compact American Cranberrybush	Viburnum opulus 'Compactum'	3 GAL	
GRASSES	QTY	COMMON NAME	BOTANICAL NAME	CONDITION AND SIZE	
CO	118	Overdam Feather Reed Grass	Calamagrostis x acutiflora 'Overdam'	1 GAL	
FE	66	Elijah Blue Fescue	Festuca glauca 'Elijah Blue'	1 GAL	
MS	29	Silver Feather Eulalia Grass	Miscanthus sinensis 'Silberfeder'	3 GAL	
PB	245	Little Bunny Fountain Grass	Pennisetum alopecuroides 'Little Bunny'	1 GAL	
PN	61	Ginger Love Fountain Grass	Pennisetum alopecuroides 'Ginger Love'	1 GAL	

PROPOSED BUILDING
MAIN FLOOR: 15,997 S.F.
UPPER FLOOR; 17,453 S.F.
TOTAL: 33,450 S.F.
FFE=1048.25

2" RIVER ROCK 24" DEEP, 3' AROUND TRANSFORMER AND GENERATOR

SOD (TYP)

3" OF 2" GRAY TRAP ROCK OVER WEED BARRIER FABRIC (TYP)

SHREDDED HARDWOOD MULCH (TYP)

SPADE CUT "EDGE (TYP)

SE ALICE'S ROAD

SE OLSON DRIVE

RIM=1044.63
21" RCP FL(S)=1040.61

RIM=1045.40
8" ABS FL(W)=1034.60
8" ABS FL(E)=1034.67

GUTT=1046.41
15" RCP FL(S)=1042.06

RIM=1047.22
8" ABS FL(E)=1037.76

4121 NW URBANDALE DRIVE
URBANDALE, IOWA 50322
PHONE: (515) 369-4400

DRAFTED:
ENGINEER:
CIVIL DESIGN ADVANTAGE

DATE
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ACCESS SYSTEMS
LANDSCAPE PLAN

1055 SE OLSON DR.
WAUKEE, IOWA

DATE: 03/03/2022
SHEET NUMBER: L1.1
2111.901

SCALE 0' 10' 20' 40'

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