



690 Chesterfield Pkwy W • Chesterfield MO 63017-0760 Phone: 636-537-4000 • Fax 636-537-4798 • www.chesterfield.mo.us

Planning Commission Staff Report

Meeting Date: January 22nd, 2024

From: Alyssa Ahner, Planner

Location: 34 Arnage Road

Description: TSG Chesterfield Airport Road, Lot B (Morganic Ventures LLC) SDSP: A Site

Development Section Plan, Landscape Plan, Lighting Plan, and Architectural Elevations for a 1-acre tract of land located north of Chesterfield Airport Rd., west

of Jaguar Land Rover Way, and south of Arnage Rd.

PROPOSAL SUMMARY

Stock & Associates, on behalf of Morganic Ventures LLC., has submitted a Site Development Section Plan, Landscape Plan, Lighting Plan, and Architectural Elevations for a proposed retail sales building with drive thru on undeveloped land located along Chesterfield Airport Road.



Figure 1: Subject Site

HISTORY OF SUBJECT SITE

Pre-1988: Subject site zoned "NU" Non-Urban.

- 2017: Subdivision was rezoned from "NU" Non-Urban to "PC" Planned Commercial under governing Ordinance 2969.
- 2020: Subdivision was rezoned to a new "PC" Planned Commercial District under governing Ordinance 3082 and a Site Development Section Plan for Lot A (Jaguar Land Rover) was approved.
- 2022: Subdivision was rezoned to a new "PC" Planned Commercial District under governing Ordinance 3206 to add "Car Wash" as a permitted use. A Site Development Section Plan for Lot D (Scrubbles Carwash) was approved subsequently.

ZONING & LAND USE

The subject site is zoned "PC" Planned Commercial under the provisions of Ordinance 3206.

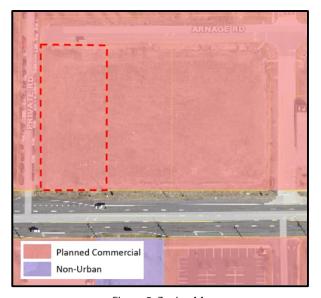




Figure 2: Zoning Map

Figure 3: Land Use Map

Direction	Zoning	Land Use
North	"PC" Planned Commercial & Interstate 64	Autobody/Interstate 64
South	"PC" Planned Commercial & "NU" Non-Urban	Service Station/Church
East	"PC" Planned Commercial	Service Station
West	"PC" Planned Commercial	Car Dealership

COMPREHENSIVE PLAN

The City of Chesterfield Comprehensive Land Use Plan indicates the subject site as being part of the Regional Commercial land use designation. The City of Chesterfield provides a character description of this area as, "Areas that serve regional commercial needs (emphasizing retail, dining, entertainment,

hotel, and leisure components) and draw visitors from both Chesterfield and the surrounding areas. Multiple buildings planned and developed together using unified project development standards".

The development policies to Regional Commercial are listed below:

- Limit curb cuts on arterial streets, and where possible concentrate access at shared entrance points
- Primary entrance points should be aligned with access points immediately across the street
- Promote re-invention of existing tenant space to accommodate different users to increase the mix of
 uses and redefine the centers, allowing them to be modernized and remain relevant in the market
- Landscape buffering should be utilized between roadways to screen areas of surface parking
- Maintain pedestrian connectivity from transit stops to facilitate the large employment centers
- Secure infrastructure for safe walking and biking between lodging and attraction centers
- Residential projects should be limited to areas outside of the Chesterfield Valley

STAFF ANALYSIS

a. Circulation, Parking, & Access

The development is to be accessed by one shared drive entering from Arnage Road. This access will be shared by the proposed development and the lot immediately to the east. The entirety of the access drive would be required to be constructed with whichever lot develops first.

The "Retail Sales – Community" use requires a minimum of 4.5 spaces per 1,000 square feet which would be equivalent to twenty (20) spaces for the proposed site. The maximum allowed per code would be twenty-four (24) spaces. The applicant is seeking a parking modification request to exceed the maximum



Figure 4: Proposed site layout

parking allowed in order to allow thirty (30) parking spaces or a 20% increase. The parking modification request and explanation behind it has been included in the Planning Commission packets for review.

Sidewalk is required to be constructed along Arnage Road and Chesterfield Airport Road. In order to comply with ADA accessibility requirements, the sidewalk along Arnage Road will connect to the proposed building. Please refer to the latest civil site plan in the Planning Commission packets for the final sidewalk layout.

A drive-thru and bypass lane is proposed on the western side of the property and would travel counter-clockwise through the site. There is adequate stacking space per the Unified Development Code requirements.

b. Landscape Design & Screening

The site has an openspace requirement of 35% and there is 41% being provided. There are existing street trees along Arnage Road, however, additional street trees will be provided along Chesterfield Airport Road in the required 30' wide landscape buffer. A mixture of shrubs and plantings are also proposed along Chesterfield Airport Road to meet the landscape buffer requirement. The interior of the site is landscaped throughout – including evergreen trees around the trash enclosure to provide year-round screening from Arnage Road.

In addition to the aesthetic plantings, the development will have a "C" shaped bioretention area extending around the north, west, and south perimeter. The proposed native plantings, as detailed on the attached planting plan, have been chosen to meet MSD water quality requirements.

Screening of any roof top mechanical equipment is to be accomplished via parapet. The roofline reaches 15'4" while the parapet continues to a maximum height of 19'. The parapet will adequately "screen the rooftop units from reasonable viewpoints" per the applicant.

c. Elevations

The proposed retail sales building is predominantly brick masonry in a "Coal Matte" color. A second brick color in "Pewter" is incorporated to create to horizontal stripes on each elevation.

A 6' tall trash enclosure located in the northwest corner of the site is proposed in the same materials and color scheme as the building. All other building components such as downspouts, metal doors, and metal coping are intended to be a similar color to one of the two proposed brick colors.

The entrance of the building, which is proposed at the southeast corner of the site along Chesterfield Airport Road, will feature an aluminum storefront system and black metal canopy.



Figure 5: Predominant building materials

d. Lighting

There will be four (4) light poles incorporated around the site (see Figure 4) and six (6) wall packs will be mounted on the building (see Figure 5). The fixtures and poles are the same ones utilized on Lot A (Jaguar Land Rover) and similar to the ones proposed to be used for Lot D (Scrubbles Carwash). All proposed lighting is code compliant.



Figure 6: Proposed light pole



Figure 7: Proposed wall pack

ARCHITECTURAL REVIEW BOARD

This project was reviewed by Architectural Review Board on December 14th, 2023. At that time, the Board made the motion to forward the project to the Planning Commission with a recommendation to approve as presented.

RENDERING



STAFF RECOMMENDATION

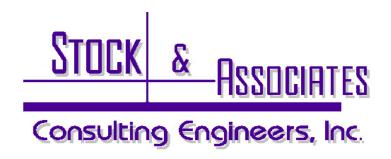
Staff has reviewed the Site Development Section Plan, Landscape Plan, Lighting Plan, and Architectural Elevations and found that it meets the requirements to be presented to the Planning Commission for review. Staff recommends action.

MOTION

The following options are provided to the Planning Commission for consideration relative to this application:

- 1) "I move to approve (or deny) the Site Development Section Plan, Landscape Plan, Lighting Plan, and Architectural Elevations for TSG Chesterfield Airport Road, Lot B (Morganic Ventures LLC), as presented.
- 2) "I move to approve the Site Development Section Plan, Landscape Plan, Lighting Plan, and Architectural Elevations for TSG Chesterfield Airport Road, Lot B (Morganic Ventures LLC) with the following conditions..."

(Conditions may be added, eliminated, altered or modified)



November 1, 2023

City of Chesterfield 690 Chesterfield Parkway W Chesterfield, MO. 63017-0760

Attention: Mr. Justin Wyse, Director of Planning

Re: 42 Arnage Road – Lot B TSG Chesterfield Airport Road

(Ordinance No. 3206) (Stock Project No. 223-7450)

Parking Modification Request

Dear Mr. Wyse,

Stock & Associates Consulting Engineers on behalf of the owner under contract, MOrganic Ventures LLC, respectfully requests a modification to exceed the maximum number of required parking spaces for the proposed Marijuana Dispensary at 42 Arnage Road. Under the provisions of the City of Chesterfield Unified Development Code (UDC) Section 405.04.04 Off-Street Parking, Stacking and Loading Spaces Requirements for Commercial Uses, Marijuana Dispensary falls under "Retail Sales - Community" has a minimum parking requirement of 4.5 space per 1,000 S.F. and a maximum parking requirement of 120% of the minimum required. The proposed Marijuana Dispensary is 4,405 S.F.

Under these provisions, the minimum and maximum allowable parking spaces are as follows:

Minimum Required: 4,405 S.F. x 4.5/1000 S.F. = 20 spaces. Maximum Allowed: 4,405 S.F. x 4.5/1000 S.F. x 120% = 24 spaces Total Spaces Allowed: = 24 spaces

To quantify the anticipated parking needs for the proposed dispensary, the Institute of Transportation Engineers – Parking Generation, 5th Edition, was utilized. As defined by the ITE the parking demands of Land Use 882: Marijuana Dispensary were studied on weekday timeframes. The database is comprised of four (4) studies in a general urban/suburban setting. The studies conclude during the peak period a range of rates between 4.10-20.60 (per 1,000 S.F. of building) and an average rate of 7.19 (per 1,000 S.F. of building). It should be noted that the Marijuana Dispensary land use is only based on a small sample size of 4 sites on weekdays (Monday-Friday) with an average of 2,200 S.F. building in Colorado in the 2010's. Based on the average rate,7.19/1,000 S.F., a 4,405 s.f. building would have an anticipated need of thirty-two (32) spaces. MOrganic Ventures, LLC, is proposing thirty (30) spaces for customers and employees, which includes 2 accessible spaces. As a result, the request for six (6) parking spaces or 20.0% increase. The proposed dispensary will be for both medical and recreational (Adult) use.

The subject site is governed by City of Chesterfield Ordinance 3206, which requires a minimum open space of 35.0%. To offset the increase in additional parking, the proposed open space is 47.96%, surpassing the minimum required by 5,644 square feet. Six (6) standard parking stalls (9.0' x 19.0') is equivalent to 1,026 S.F.. MOrganic Ventures LLC has another location in the area, at 10425 Watson Road in Sunset Hills. The building is 2,717 S.F. and provides sixteen (16) parking spaces on site. This amount

of parking is insufficient for their needs, and as a result a parking agreement for an additional ten (10) spaces exists between them and the adjacent property owner. The proposed Chesterfield location with the additional six (6) spaces "right sizes" the needed parking as compared to the Sunset Hills location.

Based on the above information, we respectfully request the City's consideration in granting this parking modification request for an additional six (6) parking spaces or 20.0% increase to satisfy MOrganic Ventures LLC's parking needs.

Sincerely,

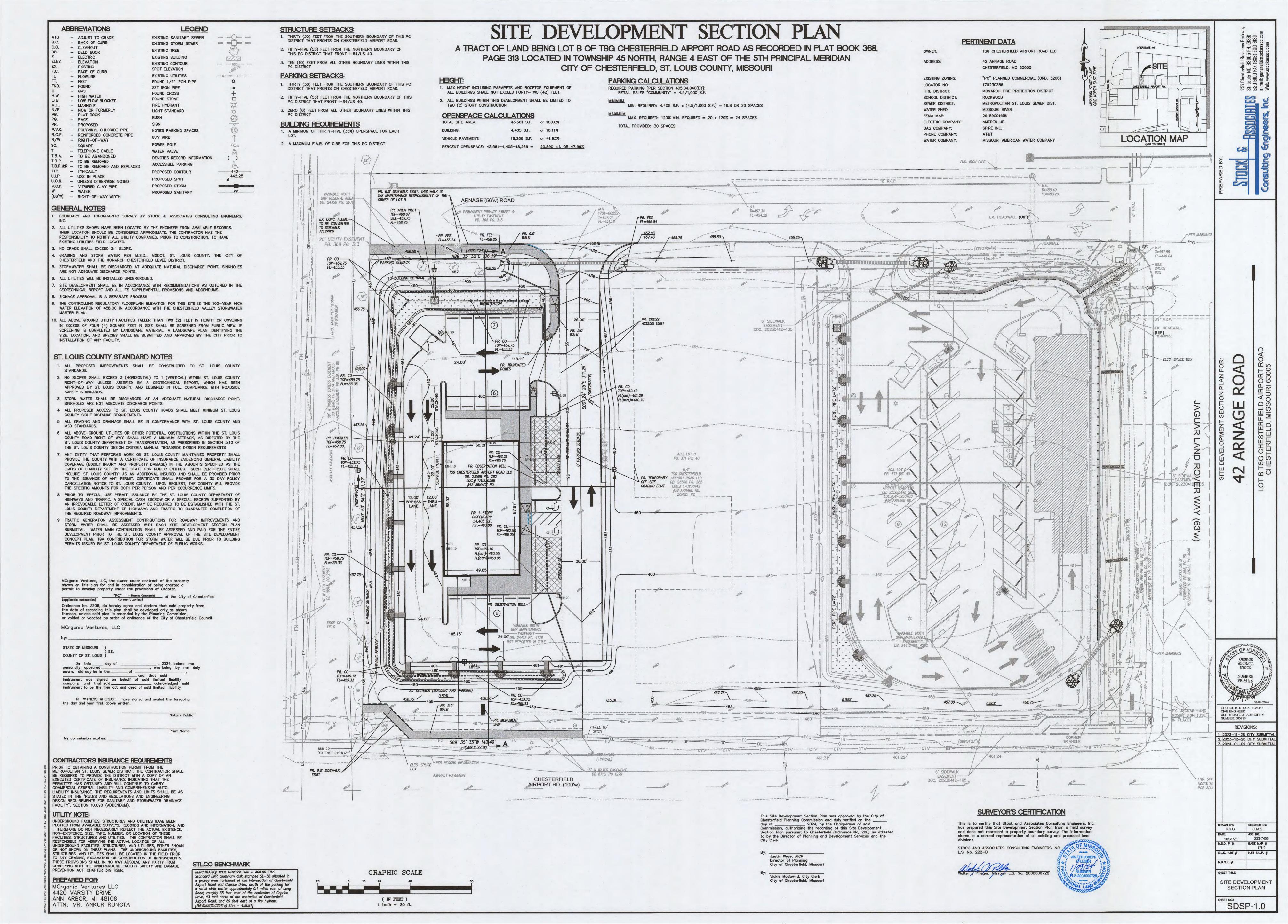
Kate Stock Gitto

Kate Stock Gitto, P.E. Associate

CC: Mr. George M. Stock, P.E., President

Mr. Ankur Rungta – MOrganic Ventures LLC c/o C3 Industries

Mr. Bob Phillips – C3 Industries Ms. Mandy Merritts – C3 Industries



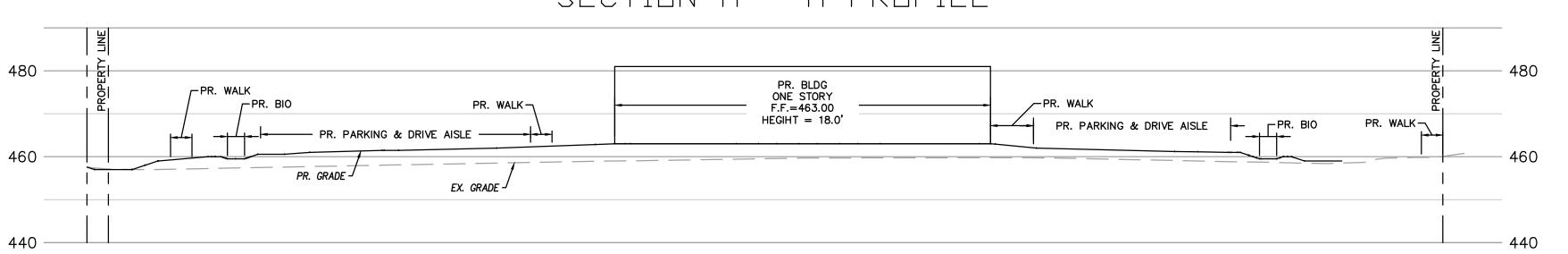
POLE FIXTURES MOUNTED ON 18' POLE & 2' BASE LIGHT LEVELS CALCULATED ON THE GROUND

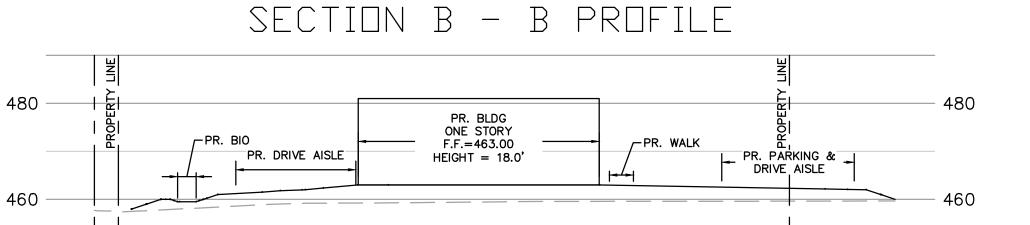
Calculation Summary							
Label	CalcType	Units	Avg	Max	Min	Avg/Min	Max/Min
SITE	Illuminance	Fc	2.23	7.8	0.4	5.6	19.5
SPILL LIGHT	Illuminance	Fc	0.05	0.5	0.0	N.A.	N.A.

Luminaire Sched	ule						
Symbol	Qty	Label	Arrangement	LLF	Lum. Watts	Total Watts	Description
	1	F1	Single	1.000	108	108	GALN-SA2C-740-U-T4FT-HSS
	1	F2	Single	1.000	65	65	GALN-SA1D-740-U-T4FT-HSS
-	2	F3	Single	1.000	57	114	GALN-SA1C-740-U-T1
□	3	WP1	Single	1.000	34	102	GWC-SA1A-740-U-T4FT
4 +	3	WP2	Single	1.000	34	102	GWC-SA1A-740-U-T3

DESIGN IS BASED ON CURRENT INFORMATION PROVIDED AT THE TIME OF REQUEST ANY CHANGES IN MOUNTING HEIGHT OR LOCATION, LAMP WATTAGE, LAMP TYPE, AND EXISTING FIELD CONDITIONS, THAT EFFECT ANY OF THE PREVIOUSLY MENTIONED, WILL

SECTION A - A PROFILE





<u>SCALE</u> HORIZONTAL: 1"=20' VERTICAL = 1"=20'

GEORGE MICHAEL STOCK NUMBER PE-25116

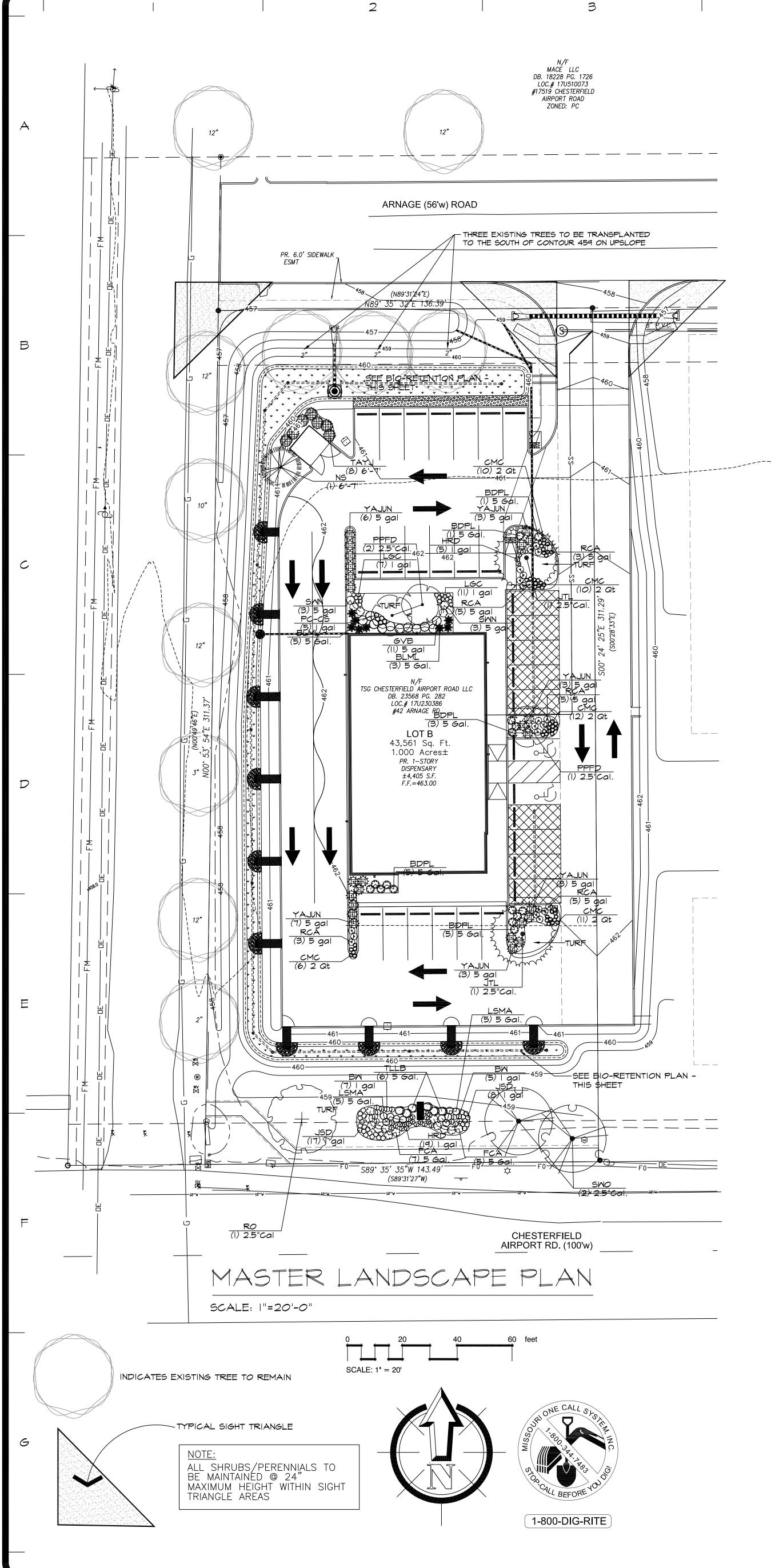
GEORGE M. STOCK E-25116 CIVIL ENGINEER CERTIFICATE OF AUTHORITY NUMBER: 000996

1. 2023-11-28 CITY SUBMITTAL
2. 2023-12-28 CITY SUBMITTAL
3. 2024-01-09 CITY SUBMITTAL

CHECKED BY: G.M.S. JOB NO: 223-7450 DRAWN BY: K.S.G. S.L.C. H&T #:

SITE PHOTOMETRIC PLAN

SDSP-2.0



PLAN	T SC	CHEDULE	
CODE	QTY	COMMON / BOTANICAL NAME	SIZE
TREES			
RO		RED OAK / QUERCUS RUBRA	2.5"CAL
5M0	2	SMAMP WHITE OAK / QUERCUS BICOLOR	2.5"CAL.
EVERGREE	N TDEES		
<u>verkokee</u> IS		NORWAY SPRUCE / PICEA ABIES	6'-7'
LYA	8	TAYLOR JUNIPER / JUNIPERUS VIRGINIANA 'TAYLOR'	6'-7'
	· · ·	·	<u>'</u>
FLOWERING JTL		IVORY SILK JAPANESE TREE LILAC / SYRINGA RETICULATA 'IVORY SILK'	2.5"CAL.
PPFD	2 3	PRAIRIE PINK FLOWERING DOGWOOD / CORNUS FLORIDA 'PRAIRIE PINK'	2.5 CAL.
SHRUBS BLML	8	BLOOMERANG DARK PURPLE LILAC / SYRINGA X 'SMSJBP7' TM	5 GAL.
BDPL	15	BLOOMERANG DWARF PURPLE LILAC / SYRINGA X 'SMNJRPU' TM	5 GAL.
AJUN	25	COMPACT YOUNGSTOWN ANDORRA JUNIPER / JUNIPERUS HORIZONTALIS 'YOUNGSTOWN'	5 GAL
CA	12	FIRE CHIEF + ARBORVITAE / THUJA OCCIDENTALIS 'CONGABE'	5 GAL.
5VB	 -	GREEN VELVET BOXMOOD / BUXUS 'GREEN VELVET'	5 GAL
<u></u> SMA	10	LOW SCAPE MOUND CHOKEBERRY / ARONIA MELANOCARPA 'LOW SCAPE MOUND'	5 GAL.
CA.	21	ROSE CREEK ABELIA / ABELIA X GRANDIFLORA 'ROSE CREEK'	5 GAL
MN	6	SUMMER WINE NINEBARK / PHYSOCARPUS OPULIFOLIUS 'SUMMER WINE'	5 GAL
LLB	6	TITAN LITTLELEAF BOXWOOD / BUXUS SINICA 'TITAN'	5 GAL.
ANNUALS/F	PERENNIA	I S	
3M	12	BUTTERFLY MILKWEED / ASCLEPIAS TUBEROSA	I GAL
MC	49	CATMINT / NEPETA X 'CAT'S MEOW'	2 QT
C-C5	5	CHEYENNE SPIRIT CONEFLOWER / ECHINACEA PURPUREA 'CHEYENNE SPIRIT'	I GAL
RD	24	HAPPY RETURNS DAYLILY / HEMEROCALLIS HYBRID 'HAPPY RETURNS'	I GAL
SD	25	JAVA SEA DAYLILY / HEMEROCALLIS X 'JAVA SEA'	I GAL
GC	18	LITTLE GOLDSTAR CONEFLOWER / RUDBECKIA FULGIDA SULLIVANTII 'LITTLE GOLDSTAR'	IGAL

CODE	QTY	COMMON / BOTANICAL NAME	SIZE
FORBS			
0BS	48	OZARK BLUE STAR / AMSONIA ILLUSTRIS	2 QT @ 30" OC
PFRM	71	PARTY FAVOR ROSE MALLOW / HIBISCUS LASIOCARPOS	1 GAL @ 30" OC
SMM	202	SMAMP MILKWEED / ASCLEPIAS INCARNATA	2 QT. @ 24" OC
NATIVE G	+_+1	BROWN FOX SEDGE / CAREX VULPINOIDEA	PLUG AT 18" OC
" +	<u>∵</u> †86	DROWN TOX SEDGE / CAREX VOLITIONEA	1 200 ,
	233	GREAT GREEN BULRUSH / SCIRPUS ATROVIRENS	PLUG AT 18" OC

PLANTING, WATER and MULCH REQUIREMENTS							
MATER AVAILABILITY	REQUIRED PLANTING PERIOD	MINIMUM CONTAINER SIZE	WATER REQUIREMENT FIRST 3 WEEKS	MATER REQUIREMENT AFTER 3 MEEKS	MAXIMUM MULCH DEPTH		
NO AVAILABILITY TO WATER AFTER	LATE FEB. - APRIL ONLY	2.25"x3.75" OR LARGER	MATER EACH PLUG IMMEDIATELY		1.5" FOR PLUGS		
MANUAL WATERING WITH STANDARD SPRINKLER	LATE FEB. - EARLY JUNE or SEPT OCTOBER	4.5"x5 OR" LARGER IN SUMMER \$ FALL	I" (60 MIN.) EVERY 4 DAYS	I" (60 MIN.) EVERY 7 DAYS UNTIL PLANTS ESTABLISHED	1.5" FOR PLUGS 2.5" FOR QUARTS		
AUTOMATIC IRRIGATION (WATER MORE	LATE FEB. - EARLY OCTOBER	2.25"x3.75" OR LARGER IN SPRING	I" (60 MIN.) EVERY 4 DAYS IN SPRING AND FALL	I" (60 MIN.) EVERY 7 DAYS UNTIL PLANTS	1.5" FOR PLUGS 2.5" FOR QUARTS		
FREQUENTLY THAN NORMAL DURING FIRST TWO MONTHS AFTER PLANTING)		4.5"x5 OR" LARGER IN SUMMER & FALL	I" (60 MIN.) EVERY 3 DAYS IN SUMMER	ESTABLISHED			

● MAINTENANCE PLAN @ RAIN GARDEN and/or BIO-RETENTION BASIN:

ROUTINE INSPECTIONS AND ATTENTION TO MAINTENANCE NEEDS ARE REQUIRED IN BOTH RAIN GARDENS AND BIO-RETENTION BASINS IF THEY ARE TO FUNCTION PROPERLY AND AS DESIGNED. AS THE PLANT MATERIAL MATURES, HOWEVER, THE AMOUNT OF MAINTENANCE DECREASES. A PROPERLY TRAINED TEAM OF LAWN MAINTENANCE CONTRACTORS SHOULD BE ABLE TO MAINTAIN THE SYSTEM PROPERLY. THE BOTTOM LINE: RAIN GARDENS AND BIO-RETENTION BASINS DO NOT REQUIRE AS MUCH MAINTENANCE AS A LAWN.

THE PRIMARY MAINTENANCE INVOLVES INSPECTING THE BEDS ON A REGULAR BASIS AND REPAIRING DAMAGE AND/OR REPLACING PLANT MATERIAL AS NEEDED. EACH OF THESE AREAS REQUIRE MINIMAL USE OF PESTICIDES, FERTILIZERS AND SUPPLEMENTAL MATERING. OVER TIME, THE PLANT GROWTH, ROOT ESTABLISHMENT AND ORGANIC DECOMPOSITION WILL CREATE A NATURAL SOIL HORIZON. THIS WILL RESULT IN THE NEED FOR LESS MAINTENANCE AND A LONGER LIFE SPAN.

AFTER INSTALLATION OF ALL PLANT MATERIAL, WATER THE PLANTS DAILY FOR AT LEAST TWO WEEKS. THEREAFTER, THE SYSTEM WILL NEED ABOUT I" OF NATURAL RAINFALL OR SUPPLEMENTAL WATERING UNTIL IT IS ESTABLISHED. INITIALLY, WEEDING (BI-WEEKLY) OF NEW RAIN GARDENS/BIO-RETENTION BASINS IS CRITICAL FOR THE FIRST FEW MONTHS AFTER THE PLANTING IS COMPLETED. MULCH WILL HELP TO KEEP WEED GERMINATION AND EROSION ISSUES TO A MINIMUM. IT IS VERY IMPORTANT TO RE-MULCH ALL VOID AREAS AND TO MAINTAIN A GOOD COVERAGE.

ACCUMULATION OF SEDIMENT IS A SIGN THAT THE SYSTEM IS WORKING PROPERLY. HOWEVER, SEDIMENT AND DEBRIS REMOVAL (APPROXIMATELY TWICE A YEAR), ESPECIALLY AT THE POINT OF INFLOW, WILL BE THE MOST IMPORTANT TASK THEREAFTER TO MAINTAIN THE RAIN GARDENS AND BIO-RETENTION BASINS. REPLACEMENT OF DEAD PLANT MATERIAL, REPAIR OF SOIL EROSIONS, ANNUAL RE-MULCHING WITH PEA GRAVEL, UNCLOGGING DRAINS AND THE REPAIR OF THE OVERFLOW STRUCTURES MAY BE NECESSARY AS THEY DEVELOP AND MATURE. UNFORTUNATELY, OVER THE SPAN OF ABOUT TEN (IO) YEARS, THE SOILS MAY NEED TO BE REPLACED DUE TO THE EXCHANGE CAPACITY OF THE CELLS AS THEY BECOME CLOSED AND THE DRAINAGE QUALITIES WILL DETERIORATE.

DENSE SHRUB GROWTH WILL INCREASE THE FILTERING CAPACITY. SCRUFFY OR DISCOLORED PLANTS SHOULD BE CUT BACK AFTER THE SPRING GROWTH IS 6" TALL. IF POSSIBLE, RAISING A MOMER DECK TO A HEIGHT OF 6" WILL MAKE THIS JOB EASIER. BY DEADHEADING THE FLOWERS, NEW GROWTH WILL RESULT. LEAVING SEED HEADS AND FRUIT SHOULD BE ENCOURAGED TO PROVIDE WINTER INTEREST, BIRD FOOD AND WILDLIFE COVERAGE.

SOIL TESTING SHOULD BE DONE BEFORE PLANTING OPERATIONS AND, THEREAFTER, EVERY TWELVE (12) MONTHS TO DETERMINE THE pH (ACIDITY) LEVEL AND THE NUTRIENT LEVELS. A pH RANGE OF 5.2 TO 7.6 IS APPROPRIATE FOR THE PLANTS CHOSEN. TO TREAT LOW pH, ADD IRON SULFATE AND SULPHUR.

USE CONTROLLED BURNING AS A TOOL ONLY UNDER THE APPROVAL AND SUPERVISION OF THE FIRE DEPARTMENT/DISTRICT.

NO FERTILIZATION IS REQUIRED OR DESIRABLE.; THE RAIN GARDENS AND BIO-RETENTION BASINS SHOULD BE

SELF-SUSTAINING WITH THE HELP OF THE ORGANIC MATERIAL IN THE TOPSOIL. IN FACT, THE PRESENCE OF FERTILIZER WILL ENCOURAGE WEED GROWTH.

ADDITIONAL MAINTENANCE MIGHT INCLUDE TREATMENT OR REMOVAL OF PLANTS PRESENTING DISEASES AND/OR FUNGAL PROBLEMS, REMOVAL OF LITTER AND LARGER DEBRIS, SEED COLLECTIONS AND HARVESTING CUTTINGS, MOVING ROCKS THAT MAY DIVERT WATER FLOW, PLANTING MORE OF A SUCCESSFUL SPECIES, BUILD-UP OF AREAS NEEDING MORE PROTECTION, ETC.

TASKS SCHEDULE:

IMMEDIATE TASKS: WATER PLANT MATERIAL FOR FOURTEEN (14) CONSECUTIVE DAYS UNLESS SUFFICIENT RAINFALL IS RECORDED.

MEEKLY: WEED BEDS. INSPECT FOR MOSQUITO LARVA (AFTER FOUR (4) DAYS OF STANDING WATER). RE-MULCH ANY VOID AREAS BY HAND. WATER DURING EXTREME DROUGHT PERIODS, EARLY IN THE MORNING, AS NEEDED.

MONTHLY: VISUALLY INSPECT AND REPAIR EROSION. ALSO VISUALLY INSPECT FOR PEST INFESTATION AND/OR DISEASE (USE LEAST TOXIC APPROACH). INSPECT DRAINAGE PATHS AND CELLS TO ASSURE PROPER DISSIPATION OF WATER.

TWICE A YEAR: REMOVE EXCESS SEDIMENT AND DEBRIS. APPLY FRESH MULCH LAYER. BETWEEN MARCH 15th-APRIL 30th AND AGAIN BETWEEN OCTOBER 1st-NOVEMBER 30th, REMOVE AND REPLACE ALL DEAD AND DISEASED VEGETATION CONSIDERED BEYOND TREATMENT.

<u>ONCE A YEAR:</u> CHECK THE ph. PRUNE EXCESS GROWTH AND RECYCLE ANY REMOVED VEGETATION MATERIAL IF NO DISEASE IS PRESENT. REMOVE ANY STAKES AND WIRES THAT REMAIN ON TREES.

EVERY TWO TO THREE YEARS: REMOVE OLD MULCH LAYER BEFORE APPLYING A NEW LAYER.

LANDSCAPE REQUIREMENTS:

ALL STREET TREES SHALL BE MIN. 2.5" CALIPER WITH A MAXIMUM OF 20% OF TREES OF ONE SPECIES THROUGHOUT.

SITE SPACES

<u>SITE SPACES:</u> TOTAL SITE: 43,561 SF

BUILDING AREA: 3,975 SF or 9.13%
PARKING / DRIVE AREAS: 18,266 SF or 41.93%
OPEN SPACE = 21,320 SF TOTAL or 48.94% OF SITE (35% MINIMUM

REQUIRED) PLEASE NOTE:

•ALL LANDSCAPE AREAS & ISLANDS SHALL BE PROVIDED WITH A MECHANICAL IN-GROUND IRRIGATION SYSTEM (BY OTHERS). COORDINATE LANDSCAPING WITH

IRRIGATION CONTRACTOR.

• ALL PLANTING BEDS TO BE EDGED w/ SPADE-CUT

EDGE UNLESS OTHERWISE NOTED.

•ADJUST TREE LOCATIONS FOR LIGHT STANDARDS AND

UNDERGROUND UTILITIES.

•NOTE: NO PARKING SPACE SHALL BE FURTHER THAN FIFTY

(50) FEET FROM A TREE.

●NO TREES OR OTHER OBSTRUCTIONS SHALL BE LOCATED WITHIN 6 FEET OF FIRE HYDRANTS.

●ALL SHRUBS/PERENNIALS WITHIN 35' SIGHT TRIANGLE ZONES TO BE MAINTAINED AT A MAXIMUM HEIGHT OF TWENTY FOUR INCHES (2 FEET); ALL TREES TO BE MAINTAINED WITH A CLEAR HEIGHT FROM GRADE OF TEN (10) FEET.

 143.49 LF FRONTAGE @ CHESTERFIELD AIRPORT ROAD, REQUIRING 3 TREES @ 2.5" CALIPER. THREE (3) TREES ARE PROPOSED.

I36.39 LF FRONTAGE @ ARNAGE ROAD, REQUIRING 3 TREES @ 2.5"
 CALIPER. THREE (3) TREES ARE PROPOSED.

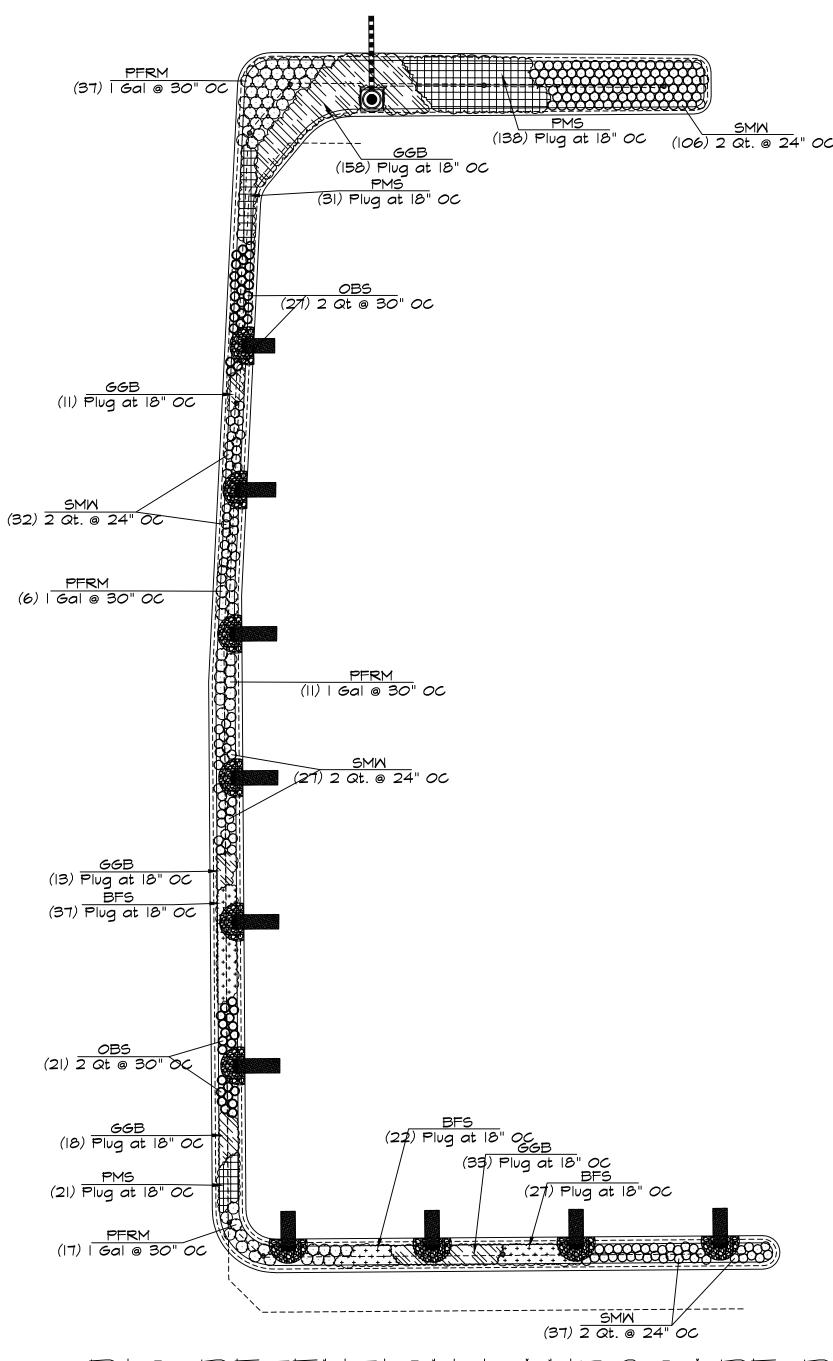
TOTAL TREES: 21 TOTAL --- O FAST GROWTH (0%) and 21

6 DECIDUOUS SHADE TREES (17%) 9 EVERGREEN TREES (50.0%)

6 ORNAMENTAL TREES (33%)

SLOW-MEDIUM GROWTH (100%)

STREET TREES: | per 50 LF FRONTAGE



BIO-RETENTION LANDSCAPE PLAN

SCALE: |"=20'-0"



11/27/2023

TECHNOLOGY
636) 428-1250
St. Charles, Missouri 63304
Mol andscape Architectural Corporal #2008008182

MARDIS

NUMBER

MISSOURI LANDSCAPE ARCHITECT #

DATE: 1-9-2024

PLANTING PLAN FOR THE PROPOSED

42 ARNAGE ROAD CHESTERFIELD, MO 6

DRAMN
R. MARDIS
CHECKED
RWM/EL

DATE
10/31/2023

SCALE
1"=20'-0"

JOB No.
2023-170

SHEET

OF TWO SHEETS

adjacent curbing.

- B.) Report all discrepancies found with regard to existing conditions or proposed design to the landscape architect immediately for a decision.
- C.) Stake the Tocations of all proposed plant material and obtain the approval of the owner's representative or landscape architect ten (10) days prior to installation.
- 3.) The contractor shall be in compliance with all codes applicable to this
- 4.) Clean all planting beds of debris, rock, building material, etc. prior to adding / spreading topsoil or mulch.
- 5.) All annual and/or perennial beds are to be roto-tilled at a depth of 12" and amended with peat moss or organic material prior to planting. All grass and/or weeds shall be killed / removed from new planting beds of any kind. 6.) Remove all debris and rock in parking lot islands shall be removed / disposed and new topsoil provided to a depth of 8" with a berm 4" higher than the
- 7.) All natural vegetation shall be maintained where it does not interfere with construction or the permanent plan of operation. Every effort possible shall be made to protect existing structures or vegetation from damage due to equipment usage. Contractor shall at all times protect all materials and work against injury to public.
- 8.) The landscape contractor shall be responsible for any coordination and sequencing with other site related work being performed by other contractors. Any damage to the existing improvements shall be the responsibility of the contractor. It shall be the responsibility of the contractors to restore all areas of the site where disturbed by said contractor. Refer to additional drawings for further coordination of
- 9.) Underground facilities, structures and utilities must be considered approximate only. There may be others not presently known or shown. It shall be the landscape contractor's responsibility to determine or verify the existence of and exact location of
- the above (Call utility location services in municipality). 10.) Plant material are to be planted in the same relationship to grade as was grown in nursery conditions. All planting beds shall be cultivated to 6" depth minimum and graded smooth immediately before planting of plants. Plant groundcover to within 12" of trunk of trees or shrubs planted within the area.
- II.) Plant material shall be typical in shape and form for species specified. Plants planted in groupings and masses shall also be matched. Container grown plant material shall not be root-bound and balled-and-burlapped material shall have root balls as dictated by American Standard for Nursery Stock.
- 12.) Items shown on this drawing take precedence over the material list. It shall be the landscape contractor's responsibility to verify all quantities and conditions prior to implementation of this plan. No substitutions of types or size of plant materials will be accepted without written approval from the landscape architect.
- 13.) Provide single-stem trees unless otherwise noted in plant schedule. 14.) All plant material shall comply with the recommendations and requirements of ANSI Z60.1 "American Standards for Nursery Stock"
- 15.) It shall be the contractor's responsibility to provide for inspection of the plant material by the Landscape Architect (or Owners' Representative) prior to acceptance. Inspections may take place before, during or after installation. Plants not conforming exactly to the plant list will not be accepted
- and shall be replaced at the landscape contractor's expense. 16.) All bids are to have unit prices listed. The Owner has the option to delete any portion of the contract prior to signing the contract or beginning work. This will be a unit price contract; quotes shall be valid for 12 months
- 17.) Should auger equipment be utilized in excavating any plant pits, vertical sides of plant pits shall be thoroughly scarified to avoid creation of "polished side walls" prior to plant material installation. 18.) All excess topsoil, rocks, debris and/or tainted soils shall be removed
- by the general contractor prior to point project is turned over to the landscape contractor to commence landscape installation. 19.) Keep all plant material (except turf) a minimum of 36" clear of fire hydrants.
- 20.) All tags, nursery stakes, labels, etc. shall be removed by the landscape contractor at completion of all landscape installation 21.) Landscape contractor shall be in compliance with all federal, state and local laws / regulations relating to insect infestation and/or plant diseases.
- 22.) All substitutions of plant material shall be submitted to landscape architect for 23.) Tree protection fencing is to be installed prior to any grading operations and
- inspected daily / maintained in place until completion of the project. 24.) No parking, storage of materials or any other construction activities are to occur within tree protection areas.

1.) Lightly prune trees at time of planting. Prune only the crossover limbs, interminaled leaders and/or any broken branches. Some interior twias and lateral branches may be pruned. However, do not remove the terminal buds of branches that extend to the edge of the crown. 2.) All pruning shall comply with ANSI A300 standards.

INSURANCE:

1.) The landscape contractor shall submit certificates of insurance for workman's compensation and general liability.

- MULCH: 1.) All mulch to be shredded oak bark mulch at 3" depth (after
- compaction) unless otherwise noted. Mulch shall be clean and free of all foreign materials, including weeds, mold, deleterious materials, etc. 2.) No plastic sheeting or filter fabric shall be placed beneath shredded bark mulch beds. Mirafi fabric shall be used beneath all gravel mulch beds.
- Lap fabric 6" over adjacent coverages 3.) Edge all beds with spade-cut edge unless otherwise noted.

PLUG PLANTING NOTES:

- I.) All plugs to be 4-1/2" deep X 2" diameter minimum.
- 2.) Plugs are to be planted in a hole dug with a trowel, spade or planting bar such that the hole is of a minimum diameter and depth to accommodate the plug and its roots, without damage.
- 3.) Plugs shall be spaced in a triangulated layout approximately 24" on center. Pluas shall be planted through erosion control blanket where appropriate. 4.) Obtain plugs from a reputable nursery
- 5.) Water plugs upon completion of planting so that soil is moist but not saturated 6.) If planting is delayed more than six hours after delivery, store plugs in the shade, protect from weather and mechanical damage and keep them moist and cool. All plugs shall be planted within 24 hours after delivery.

MAINTENANCE:

- 1.) Landscape Contractor shall provide a separate proposal to maintain all plants, shrubs, groundcover, perennials and annuals for a period of 12 months after acceptance.
- 2) Contractor shall ensure that only competent and trained personnel shall provide such services and that such services be provided in a timely
- 3.) Watering of seeded or sodded lawns shall begin immediately and shall continue to be provided continuously for the following 72 hours. Regardless, the landscape contractor shall be resposible for all landscape maintenance until project turnover.

SIGHT TRIANGLES:

- I.) No landscape material or other obstructions shall be placed or be maintained within the sight distance area so as to impede the vision between a height of thirty inches (30") and ten feet (10') above the adjacent street or paving surfaces.
- 2.) Sight triangles at the intersection of a public street and a private access way (except for single family residences) shall also be formed by measuring from the point of intersection of the street frontage curbs and the entrance curb lines a distance of 35' and connecting the points so established to form the sight triangle area.

- 1.) Topsoil mix for all proposed landscape plant material (excluding turf areas) shall be five (5) parts well-drained screened organic topsoil to one (1) part Canadian sphagnum peat moss as per planting détails. Roto-till topsoil mix to a depth of 6" minimum and grade smooth.
- 2.) Provide a soil analysis, as requested, made by an independent soil-testing agency outlining the % of organic matter, inorganic matter, deletérious material, pH and minéral content.
- 3.) Any foreign topsoil used shall be free of roots, stumps, weeds brush, stones (larger than I"), litter or any other extraneous or toxic material. Landscape contractor shall be fully responsible for correcting all negative soil issues prior to plant installation. Killing and removal of all weeds shall be the responsibility of the landscape contractor as part of this task.
- 4.) Landscape contractor to apply pre-emergent herbicide to all planting beds upon completion of planting operations and
- before application of shredded bark mulch. 5.) Install siltation controls prior to commencement of any grading operations. Inspect and maintain all siltation fences on a weekly basis until vegetation is established.

- I.) All plant material (excluding ground cover, perennials and annuals) are to be warranted for a period of 12 months after complete installation of all landscape material at 100% of the installed price. All plant material deemed unhealthy, unsightly or having undue amounts of dead branches by the landscape architect shall be replaced under this warranty.
- 2.) Any plant material found to be defective shall be removed and replaced within 30 days of notification or in growth season determined to be best for that plant.
- 3.) Only one replacement per tree or shrub shall be required at the end of the warranty period, unless loss is due to failure to comply with the warranty. 4.) Landscape contractor shall not be liable due to acts of God or vandalism.
- 5.) Lawn establishment period will be in effect once the lawn has been moved three times. Plant establishment period shall commence on the date of acceptance
- 6.) A written quarantee shall be provided to the owner per conditions outlined in #1 above.

- 1.) All disturbed lawn areas to be seeded with a mixture of Turf-Type fescue (300# per acre) and bluegrass (18# per acre). Lawn areas shall be unconditionally warranted for a period of 90 days from date of final acceptance. Bare areas more than one square foot per any 50 square feet shall
- 2.) Seed and fertilization operations shall occur between May and June 15th or between September 1 and October 15th unless directed by others in writing AND irrigation system is operating. 3.) Granular or pelleted fertilizer consisting of 50% water-insoluble
- slow release nitrogen, phosphorous and potassium in a 12-12-12 composition.
- 4.) The turf contractor shall be responsible for protection of finished grade; restore and repair any erosion or water damage and obtain owners' approval prior to seeding or sod installation.
- 5.) Landscape contractor shall offer an alternate price for sod in lieu of seed. Sod shall be cut at a uniform thickness of 3/4".
- No broken pieces, irregular pieces or torn pieces will be accepted. 6.) Any points carrying concentrated water loads and all slopes of
- 15% or greater shall be sodded. 7.) All sod shall be placed a maximum of 24 hours after harvesting.
- 8.) Recondition existing lawn areas damaged by Contractor's operations including equipment/material storage and movement of vehicles.
- 9.) Sod Contractor to ensure sod is placed below sidewalk and all paved area elevations to allow for proper drainage.

IRRIGATION GUIDELINE SPECS:

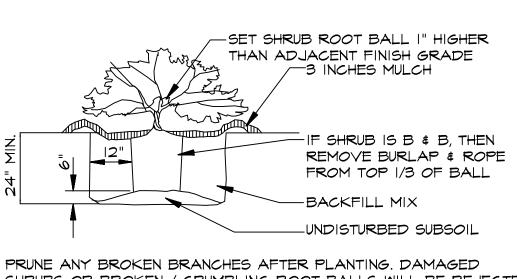
GENERAL:

- 1.) System shall be designed for 30 gpm @ 80 PSI. Contractor to field vērifų actual conditions.
- with owner or owner's representative. 3.) All control wiring to be 14 ga. Minimum 3 extra strands
- to be installed in each direction from the controller to the end of the mainline.
- 4.) All piping to be sleeved in SCH40 PVC when passing under hardscape. PVC Sleeve to be a minimum of twice the size of pipe(s) running through.

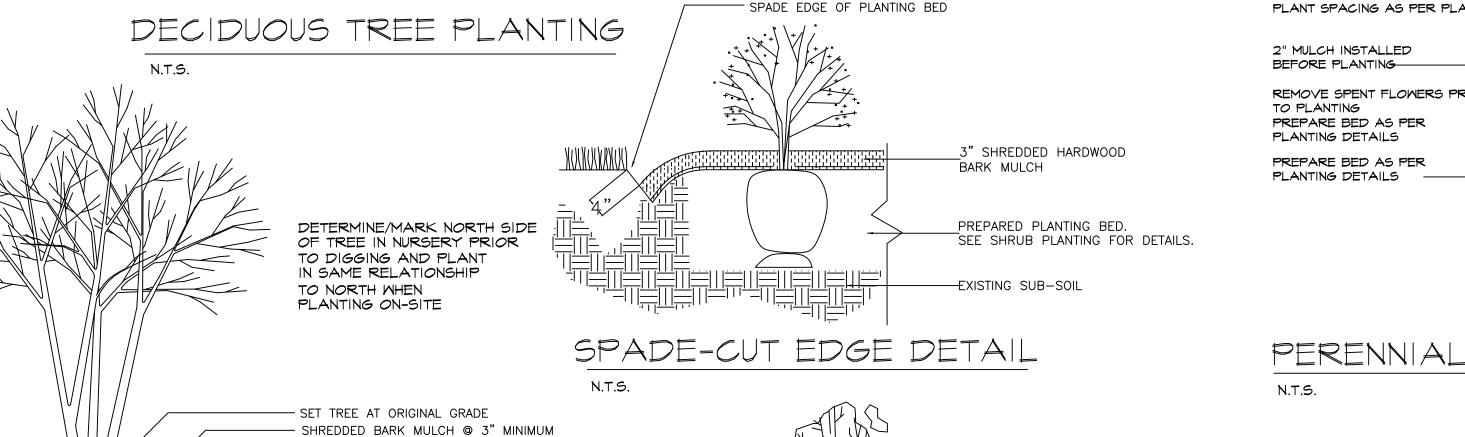
2.) Exact tap, backflow and controller location to be coordinated

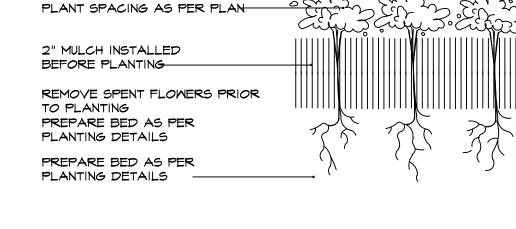
- 5.) Underground facilities, structures and utilities must be considered approximate only. There may be others not presently known or shown. It shall be the irrigation contractor's responsibility to determine or verify the existence of and exact location of the above (Call I-800-DIG-RITE).
- 6.) It shall be the irrigation contractor's responsibility to: A.) Verify all existing and proposed features shown on the
- drawings prior to commencement of work. B.) Report all discrepancies found with regard to existing conditions or proposed design to the landscape architect immediately for a decision.

DETERMINE/MARK NORTH SIDE OF TREE IN NURSERY PRIOR TO DIGGING AND PLANT_ IN SAME RELATIONSHIP TO NORTH WHEN PLANTING ON-SITE - DO NOT CUT CENTRAL LEADER FLARE OF TRUNK TO BE-VISIBLE ABOVE SOIL LINE 3 INCHES SHREDDED BARK MULCH - 4 INCH DEEP SAUCER -8' STEEL TEE POST, SET PLUMB BACKFILL MIX UNDISTURBED SUBSOIL REMOVE BURLAP, WIRE & ROPE FROM TOP 1/3 OF THE BALL AFTER PLACEMENT IN PIT

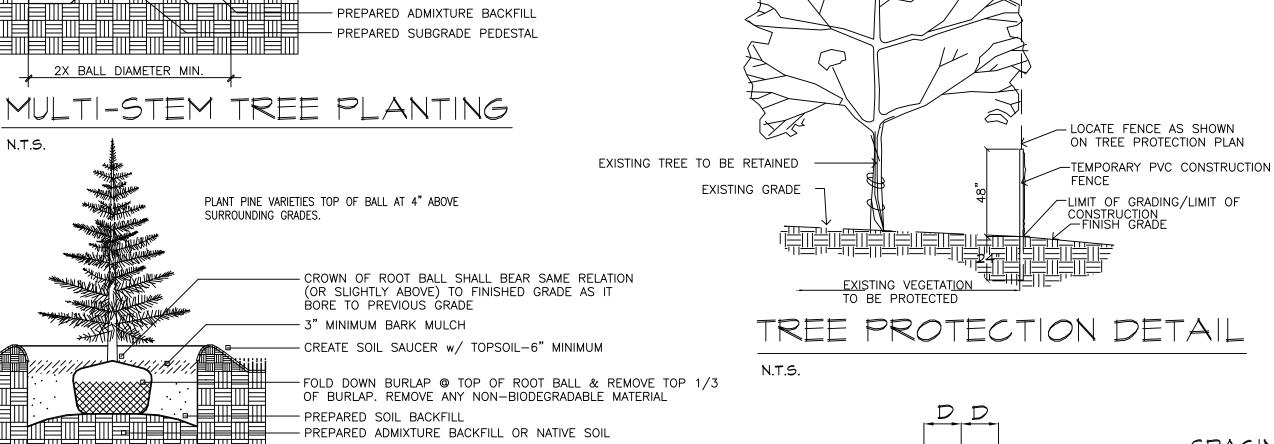


SHRUBS OR BROKEN / CRUMBLING ROOT BALLS WILL BE REJECTED.





ANNUAL PLANTING



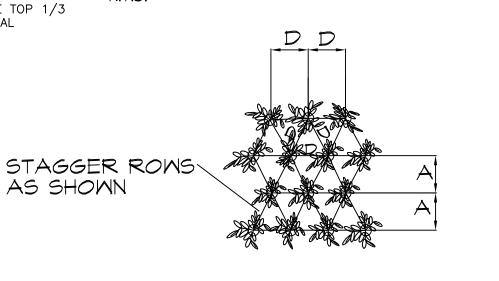
- SOIL SAUCER: USE PREPARED TOPSOIL - 6" MINIMUM

CUT ROPES @ TOP OF ROOT BALL. REMOVE TOP 1/3

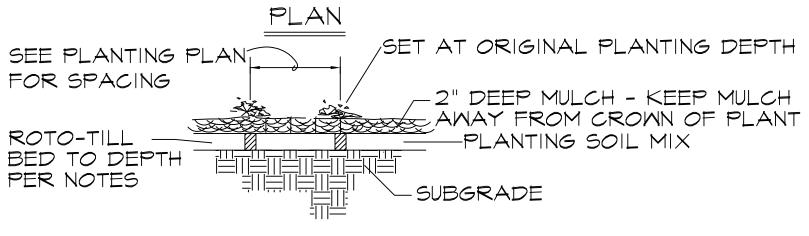
OF BURLAP. REMOVE ANY NON-BIODEGRADABLE

2X BALL DIAMETER

EVERGREEN TREE PLANTING N.T.S.



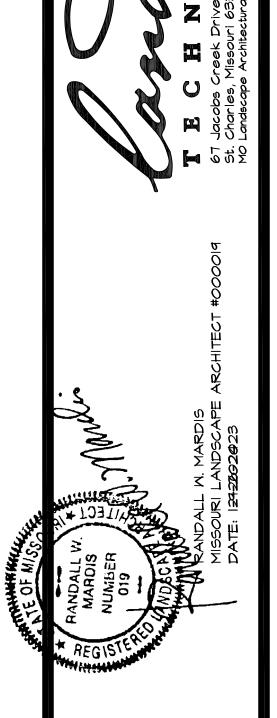
OF PLANTS SPACING "D" PER SQ. FT. ROW "A' 30" 0.16 0.25 18" 0.45 13" 0.64 1.00 1.44 8.66 2.25 6.93"



SECTION FORB/GRASS PLANTING DETAIL

N.T.S.

11/27/2023 12/26/2023 1/9/202



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