

09.14.2021

ADDENDUM #1

PROJECT: WHITE STATE HENRY – SPA TREE REPLACEMENT

Ann Arbor, MI

OWNER: ANN ARBOR HOUSING COMISSION

Ann Arbor, MI

ARCHITECT: FUSCO, SHAFFER & PAPPAS, INC.

Ferndale, Michigan

A. GENERAL

This Addendum is issued prior to the start of construction and amends the contract drawings and specifications dated 08.15.2021.

Except as otherwise specifically mentioned, the general character of the work required by this Addendum shall be the same as originally specified, and all incidentals required in connection with the work hereinafter described shall be included even though not specifically mentioned. Where an item is mentioned with no additional specifications given, reference shall be made to the original specifications.

B. REVISIONS, CLARIFICATIONS AND ADDITIONS TO THE CONTRACT DRAWINGS

1. SHEET L.302

a. Revised sheet to include total dollar amount due to the city of Ann Arbor for 24" of tree listed in landscape data table.

-- END OF ADDENDUM #1 --

550 E. NINE MILE ROAD FERNDALE, MICHIGAN, 48220 PHONE 248.543.4100 FAX 248.543.4141

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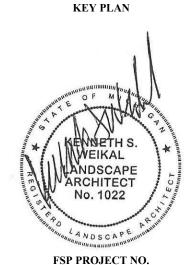
SEAL

ME Δ

B 09.13.2021 TREE REPLACEMENT 08.15.2021 TREE REPLACEMENT 06.04.2019 ASI-001 CITY REVIEW 04.01.2019 BULLETIN #1 02.20.2019 ADDENDUM #2 11.12.18 ADDENDUM #1 08.21.18 ADMIN. AMEND. B RESUBMISSION 2 07.24.18 PUD ADMIN. AMEND.

B RESUBMISSION 1 06.08.18 PUB ADMIN AMEND. B SUBMISSION 03.21.18 PLANNING REVIEW 02.17.16 PUD ADMIN A RESUBMIT #2

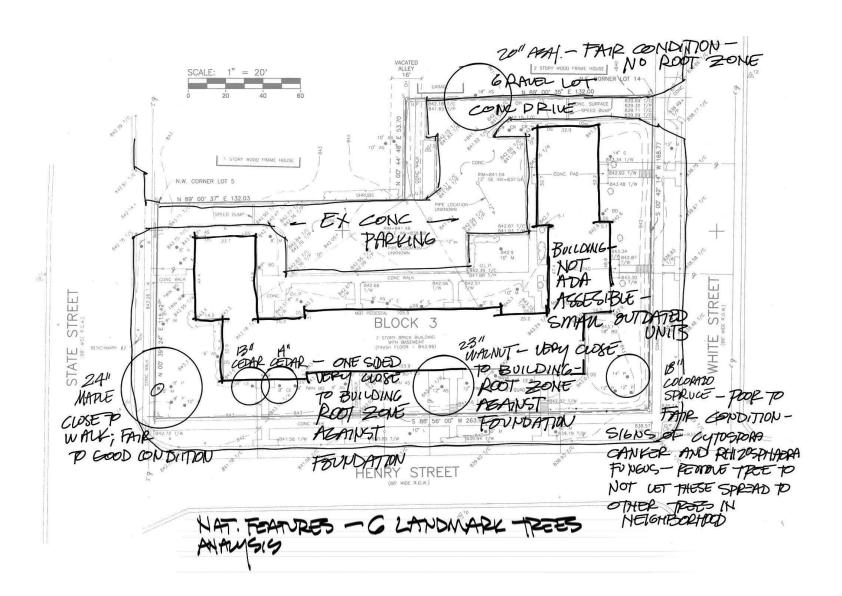
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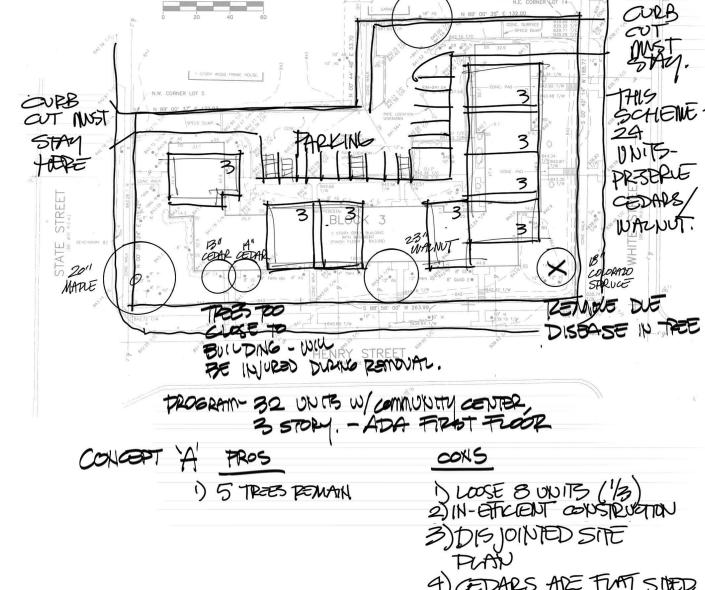


NDU15.007 DRAWING TITLE

NATURAL FEATURES ALTERNATIVES ANALYSIS

DRAWING NUMBER

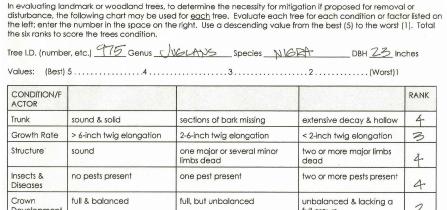




disturbance, the he left; enter th he six ranks to s ree I.D. (numbe	e following chart may be use the number in the space on the score the trees condition. er, etc.) 979 Genus 7	o determine the necessity for mind for <u>each</u> tree. Evaluate each ne right. Use a descending value ACA Species 6L	tree for each condition or fact from the best (5) to the worst	or listed (1). Tota
CONDITION/F ACTOR				RANK
Trunk	sound & solid	sections of bark missing	extensive decay & hollow	3
Growth Rate	> 6-inch twig elongation	2-6-inch twig elongation	< 2-inch twig elongation	3
Structure'	sound	one major or several minor limbs dead	two or more major limbs dead	1
Insects & Diseases	no pests present	one pest present	two or more pests present	1
Crown Development	full & balanced	full, but unbalanced	unbalanced & lacking a full crown	3
Life Expectancy	> 30 years	15-20 years	< 5 years	2
Comments			total	13*

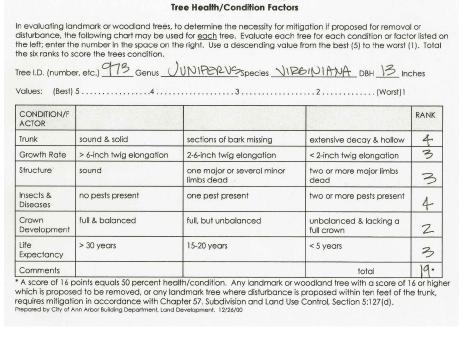
NATURAL FEATURES ANALYSIS

NOT TO SCALE

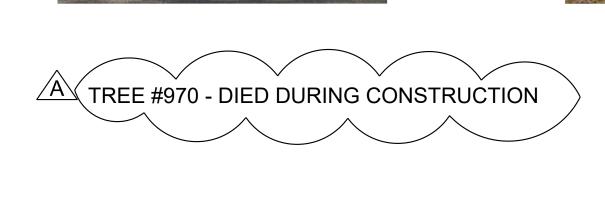


Tree Health/Condition Factors

ACTOR				
Trunk	sound & solid	sections of bark missing	extensive decay & hollow	4
Growth Rate	> 6-inch twig elongation	2-6-inch twig elongation	< 2-inch twig elongation	3
Structure [*]	sound	one major or several minor two or more major limbs dead dead		4
Insects & Diseases	no pests present	one pest present	two or more pests present	4
Crown Development	full & balanced	full, but unbalanced	unbalanced & lacking a full crown	2
Life Expectancy	> 30 years	15-20 years	< 5 years	
Comments			total	70*



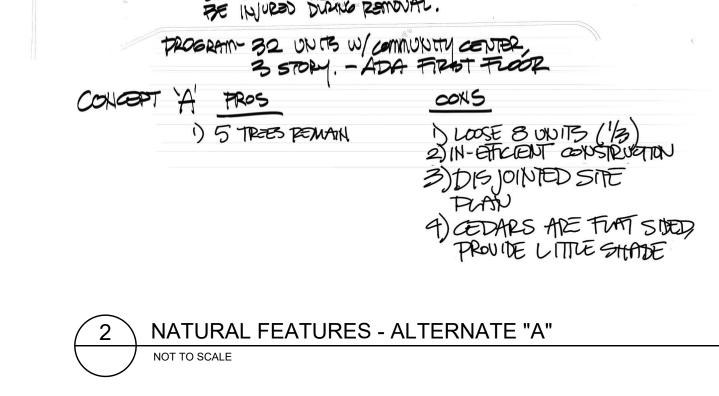
disturbance, the he left; enter th he six ranks to s ree I.D. (numbe	e following chart may be use e number in the space on the core the trees condition. er, etc.) 974 Genus	o determine the necessity for miled for <u>each</u> tree. Evaluate each ne right. Use a descending value UNIPORUS Species VI	tree for each condition or fact- e from the best (5) to the worst (or listed 1). Tota
CONDITION/F ACTOR	54	3	2(Worst)1	RANK
Trunk	sound & solid	sections of bark missing	extensive decay & hollow	4
Growth Rate	> 6-inch twig elongation	2-6-inch twig elongation	< 2-inch twig elongation	3
Structure'	sound	one major or several minor limbs dead	two or more major limbs dead	8
Insects & Diseases	no pests present	one pest present	two or more pests present	4
Crown Development	full & balanced	full, but unbalanced	unbalanced & lacking a full crown	2
Life Expectancy	> 30 years	15-20 years	< 5 years	3
Comments			total	19*

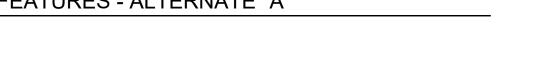






NOT TO SCALE





Natural Features Statement of Impact

REMOVE OFFIRE WAZNUT-

TOO CLOSE TO PROPOSED BLDG-

DUANT NEW NAME LONG LUED TREES.

TROBRAM 32 UNITS W/ COMMUNITY CENTER STORY. - ADA FIRST FLOOR

CUT

PRZERVE

CEDAPS/

WAZNUT.

DISPASE IN PEE

1)4 TRES REMOVED-

(ONE DISPASED)

The proposed White State Henry Apartments is designed as an affordable housing development for the Ann Arbor Housing Commission, who owns operates and maintains the existing development. The proposed 32 unit apartment building is a replacement for the existing 28 unit building, non-compliant with the American Disabilities Act. The existing natural features on-site are limited to six existing landmark trees___

1)	Six la	ndmark trees	are:	
À	970	Maple	24" caliper	growing adjacent to the sidewalk and street, good condition
	973	Red Cedar	13" caliper	DIED DURING CONSTRUCTION 4' off the building, one sided, poor shape very limited root zone, fair condition
	974	Red cedar	14" caliper	4' off the building, one sided, poor shape, very limited root zone, fair condition
	975	Walnut	23" caliper	growing close to the existing building, limited root zone, un-even crown, fair to good condition
	979	Colorado Spruce	18" caliper	diseased – show signs of Cytospora fungus, Rhizosphaera fungus, will spread to other trees in the area, fair to poor condition,
	985	Ash	20" caliper	growing between two parking lots, poor crown, very limited root zone, fair condition

Site layout Concepts

COURS OUT MUST

HOLDE

COMMUNITY BUDG

1) 2 TRAES PAMAIN

COHESIVE SITE PLAN

EFFICIENT BUILDING 132 UNB (10 ADA)

5) NEW SHADE TREE REDUARAMENTS TO BE PLAMED DER ORDINANCE

NATURAL FEATURES - ALTERNATE "B"

The Program for the building is for 32 affordable housing units, 10 of which are to be American Disabilities Act compliant. The curb cuts for the entry drives to the parking must stay in the existing locations, and set back requirements require the proposed new building utilize the same general footprint as the current building.

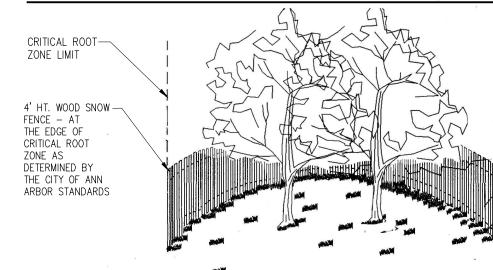
Concept "A" preserves 5 of the 6 landmark trees, the infected Colorado Spruce has been removed to not spread disease to other trees in the area. In preserving the two cedars and the walnut, this layout however provides only 24 units. This building layout is dis-jointed, and not cohesive. Existing building demolition will stress and possibly kill the cedars and walnut tree attempting to be preserved. The preserved one-sided cedars grant little shade for new residents.
(1)

The preferred Concept "B" preserves X of the 6 landmark trees - the infected Colorado Spruce has been removed to not spread disease to other trees in the area, and the two cedars and walnut have been removed because they fall inside the edge of the proposed 32 unit building. This layout for the building is cohesive and efficient. Replacement trees proposed for the cedars and walnut are Hackberry, a long lived large shade tree tolerant of urban conditions, and for spring and fall color, native pink flowering Red Bud and white flowering Service Berry ornamental trees. Locations for these proposed trees are in the lawn out from the proposed building, with ample root area for the trees to reach their mature size and form.

No new impact to Landmark tree #985's critical root zone should occur as proposed conditions will be consistent with existing conditions within that zone. Landmark tree #979's critical root zone will have additional impact due to the installation of new underground utilities.



NOT TO SCALE

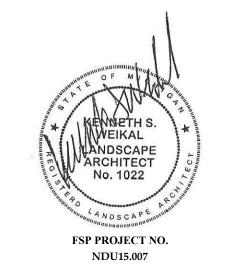


TREE PROTECTION DETAIL L.300/ NOT TO SCALE

NOTE KEY: 2 1 SNOW FENCE - TREE PROTECTION FENCE - SEE SHEET 2/L.300

09.13.2021 TREE REPLACEMENT 08.15.2021 TREE REPLACEMENT TREE LEGEND 06.04.2019 ASI-001 CITY REVIEW 04.01.2019 BULLETIN #1 = TREE TO BE REMOVED 02.20.2019 ADDENDUM #2 11.12.18 ADDENDUM #1 08.21.18 ADMIN. AMEND. B > ♂ ≤ ≤ = TREE TO REMAIN RESUBMISSION 2 07.24.18 PUD ADMIN. AMEND. B RESUBMISSION 1 06.08.18 PUB ADMIN AMEND. B SUBMISSION TAG NO. DBH TYPE LANDMARK TREE 03.21.18 PLANNING REVIEW 02.17.16 PUD ADMIN A RESUBMIT #2

ISSUE DATE KEY PLAN 12" NORWAY MAPLE 12" COLORADO SPRUCE NO 17" NORWAY MAPLE



ARCHITECTS AND PLANNERS

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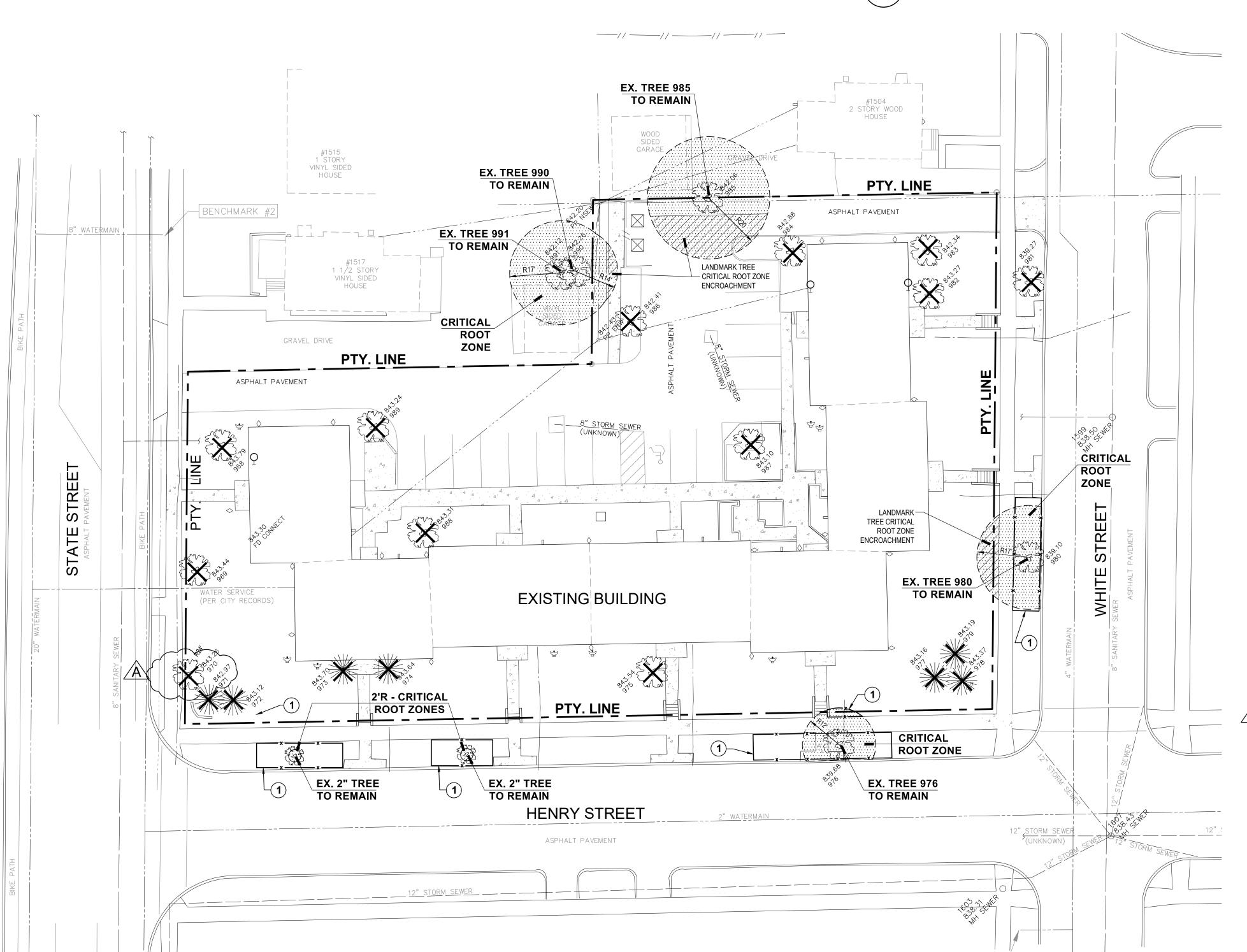
SEAL

248 477 3600 TEL

DRAWING TITLE EXISTING SITE -TREE REMOVAL PLAN

DRAWING NUMBER

L.300





NORTH

TREE LIST

5", 5" CRABAPPLE

10" NORWAY MAPLE

NOTE: ONLY TREES 6" DBH OR LARGER HAVE BEEN IDENTIFIED IN ACCORDANCE WITH CITY REQUIREMENTS.

THERE MAY BE SMALLER TREES PRESENT THAT MAY

CRITICAL ROOT ZONE (CRZ) =

1 RADIAL FOOT PER CALIPER INCH AT DBH

(IE 14" TREE = 14'R CRZ)

20" ASH

11" MAPLE

14" ASH

NOT BE APPEAR ON THIS SURVEY.



NOTE:

CONTRACTOR TO

VERIFY ALL PLANT

QUANTITIES WHEN

PROPOSAL FORM.

BIDS WILL NOT BE

ON THE PROVIDED

PROPOSAL FORM

CONSIDERED IF NOT

SUBMITTING

PLANT MIX

DISPOSE OF SPOILS OFF SITE.

EXCAVATE PLANT BEDS TO DEPTH SHOWN ON DETAILS -

PLANTING BEDS AND PLANT PITS TO RECEIVE MIXTURE OF: 70% LOAM TOPSOIL, 10% COMPOST, 20% SAND;

ADDITIONALLY - HAND TILL INTO EVERY 150 SQ. FT. BED AREA AND/OR ADD TO EVERY ONE CUBIC YARD OF PLANT PIT MIX:

- (1) 6 CU. FT. BALE ORGANIC COMPOST
- (1) 40 LB BAG COMPOSTED POULTRY MANURE "CHICK MAGIC" 5-3-2 WWW.CHICKMAGIC.NET (262)495-6220
- (1) 5 LB BAG SHEMINS 13-13-13 MULTI PURPOSE FERTILIZER HAND TILL INTO BED TO MINIMUM DEPTH OF 12"

LAWNS:

ALL PROPOSED LAWN AREAS TO BE NON-IRRIGATED SEED.

FRESH, CLEAN AND NEW CROP SEED MIXTURE. MIXED BY APPROVED

PROPORTIONS BY WEIGHT AND TESTED TO MINIMUM PERCENTAGES OF PURITY AND GERMINATION. NON-IRRIGATED LAWN SEED MIXTURE PROPORTIONED BY VOLUME AS

COMPOSED OF THE FOLLOWING VARIETIES, MIXED TO THE SPECIFIED

INDICATED BELOW: SEED TYPE PROPORTION PURITY GERMINATION KENTUCKY BLUEGRASS 20% 90%

NO NOXIOUS WEED SEEDS PERMITTED.

ANNUAL RYEGRASS

TALL FESCUE

STRAW MULCH: USED IN CRIMPING PROCESS ONLY. CLEAN OAT OR WHEAT STRAW WELL SEASONED BEFORE BAILING, FREE FROM MATURE SEED NEARING STALKS OR ROOTS OF PROHIBITED OR NOXIOUS WEEDS.

20% 60%

95% 95%

80%

80%

WATER: FREE OF SUBSTANCE HARMFUL TO SEED GROWTH. HOSES OR OTHER METHODS OF TRANSPORTATION FURNISHED BY CONTRACTOR.

GENERAL PLANTING NOTES:

- (A) ALL TREES TO HAVE CLAY OR LOAM BALLS, TREES WITH SAND BALLS WILL BE REJECTED.
- (B) ALL SINGLE STEM SHADE TREES TO HAVE STRAIGHT TRUNKS AND SYMMETRICAL CROWNS.
- (C) ALL SINGLE TRUNK SHADE TREES TO HAVE A CENTRAL LEADER, TREES WITH FORKED OR IRREGULAR TRUNKS WILL NOT BE
- (D) ALL MULTI-STEM TREES SHALL BE HEAVILY BRANCHED AND HAVE SYMMETRICAL CROWNS. ONE SIDED TREES OR THOSE WITH THIN OR OPEN CROWNS SHALL NOT BE ACCEPTED.
- (E) ALL EVERGREEN TREES SHALL BE HEAVILY BRANCHED AND FULL TO THE GROUND, SYMMETRICAL IN SHAPE AND NOT SHEARED FOR THE LAST FIVE GROWING SEASONS.

(F) NO MACHINERY IS TO BE USED WITHIN THE DRIPLINE OF EXISTING

CONTRACTOR AND ARE SUBJECT TO THE APPROVAL OF THE

LANDSCAPE ARCHITECT PRIOR TO INSTALLATION OF THE PLANT

- TREES. HAND GRADE ALL LAWN AREAS WITHIN DRIPLINE OF EXISTING TREES. (G) ALL TREE LOCATIONS SHALL BE STAKED BY LANDSCAPE
- (H) IT IS MANDATORY THAT POSITIVE DRAINAGE IS PROVIDED AWAY FROM ALL BUILDINGS, WALKS AND PAVED AREAS.
- ALL PLANTING BEDS SHALL RECEIVE SHREDDED BARK MULCH. SEE PLANTING DETAILS FOR DEPTH.
- J SEE SPECIFICATIONS FOR ADDITIONAL COMMENTS, REQUIREMENTS, PLANTING PROCEDURES AND WARRANTY STANDARDS.

LANDSCAPE EDGING

ALL LANDSCAPE EDGES ARE SHOVEL CUT

MATERIAL.

PLANT BEDS

ALL PLANT BEDS TO BE FULLY EXCAVATED TO DEPTH SHOWN ON DETAILS AND AREAS SHOWN ON PLANS, AND TO RECEIVE CONTINUOUS

MULCH

PLANT MIX AS SPECIFIED

MULCH TO BE DOUBLE SHREDDED HARDWOOD BARK MULCH

NO GROUND WOOD PALETTE MULCH PERMITTED

TOPSOIL

CONTRACTOR TO TILL OR DISK SUBGRADE TO 4" DEPTH AND INSTALL 6" COMPACTED DEPTH TOPSOIL IN ALL LAWN AREAS - FROM ONSITE STOCKPILE OR PROVIDED TO COMPLETE THE PROJECT

PLANT SPACING

FILL BED WITH PLANTS SPECIFIED. KEEP PLANTS AWAY FROM BUILDING 12" MATURE SIZE

WATERING

CONTRACTOR IS RESPONSIBLE FOR MONITORING THE WATERING OF ALL PLANTINGS AND LAWNS THROUGH THE CONSTRUCTION PERIOD, TWO LAWN CUTTINGS AND UNTIL THE START OF THE WARRANTY PERIOD. OWNER THEN ACCEPTS ALL WATERING RESPONSIBILITIES. PRIOR TO THE BEGINNING OF THIS WARRANTY PERIOD, PLANTINGS THAT PERISH DUE TO LACK OF WATER, OR TOO MUCH WATER, DO NOT QUALIFY AS THE ONE REQUIRED REPLACEMENT PLANT AS STATED IN THE SPECIFICATION, AND SHALL BE REPLACED AT NO COST TO THE OWNER.

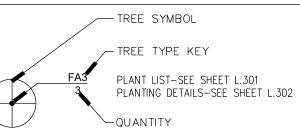
NOTE KEY: 2

- 1) SNOW FENCE TREE PROTECTION FENCE SEE SHEET 2/L.300
- (3) CONTINUOUS MULCH BED, 4" DEPTH

(2) NON-IRRIGATED SEED LAWN

- 4 LIGHT FIXTURE SEE SITE ELECTRICAL PLANS
- (5) BUILDING UTILITIES SEE ELECTRICAL AND MECHANICAL PLANS
- (6) MONUMENT SIGN SEE ARCH. PLANS
- (7) 8'X10' UNIT PATIO SEE ARCH. PLANS (8) MAILBOXES - SEE ARCH. PLANS

PLANTING KEY:



NO PLANTINGS SHALL BE INSTALLED WITHIN 5' OF A FIRE HYDRANT.

BIKE RACKS - BIKE PARKING IS PROVIDED INSIDE THE BUILDING - SEE SHEETS A101 / AS101

CRITICAL ROOT ZONE (CRZ) = 1 RADIAL FOOT PER CALIPER INCH AT DBH 대 (IE 14" TREE = 14'R CRZ)

RIGHT-OF-WAY SCREENING

PLANT LIST - STATE STREET TREE (SS) QUAN. KEY COMMON/ BOTANICAL NAME SIZE SPEC. 2.5" Cal. B&B Princeton Elm Ulmus americana 'Princeton Thornless Honeylocust 2.5" Cal. B&B Gleditsia 'Skyline' **Existing Tree to Remain**

RIGHT-OF-WAY SCREENING

QUAN.	KEY	COMMON/ BOTANICAL NAME	SIZE	SPEC.
1	GD	Kentucky Coffee Tree	2.5" Cal.	B&B
		Gymnocladus dioicus		
2	GT	Thornless Honeylocust	2.5" Cal.	B&B
		Gleditsia 'Skyline'		
3	UP	Princeton Elm	2.5" Cal.	B&B
		Ulmus americana 'Princeton'		
3		Existing Tree to Remain		

RIGHT-OF-WAY SCREENING

PLANT LIST - WHITE STREET TREE (WS)						
QUAN.	KEY	COMMON/ BOTANICAL NAME	SIZE	SPEC.		
2	GD	Kentucky Coffee Tree Gymnocladus dioicus	2.5" Cal.	B&B		
3	UP	Princeton Elm Ulmus americana 'Princeton'	2.5" Cal.	B&B		
1		Existing Tree to Remain				

PLANT LIST - CONFLICTING LAND USE BUFFER (B) QUAN. KEY COMMON/ BOTANICAL NAME SIZE SPEC. QR Northern Red Oak 2.5" Cal. B&B Quercus rubra 6' Ht. B&B Spartan Juniper

PLANT LIST - INTERIOR ISLAND TREES (IT) QUAN. KEY COMMON/ BOTANICAL NAME SIZE SPEC. CO 2.5" Cal. B&B Celtis occidentalis UH New Harmony Elm 2.5" Cal. B&B

Juniperus 'Spartan'

PLANT LIST - LANDMARK TREE REPLACEMENT (R)

Ulmus americana 'New Harmony'

	QUAN.	<u>KEY</u>	COMMON/ BOTANICAL NAME	SIZE	SPEC.	
	3	AL	Serviceberry (counted as 3" cal.)	8' Ht.	B&B	
			Amelanchier laevis	multi		
	5	СО	Hackberry	2.5" Cal.	B&B	
			Celtis occidentalis			
	4	CC	Eastern Redbud (counted as 3" cal.)	8' Ht.	B&B	
			Cercis canadensis	4 stem mir	1.	
	1	UH	New Harmony Em	2.5" Cal.	B&B	
		\	Ulmus americana 'New Harmony'			
	2	QR	Northern Red Oak	3.0" Cal.	B&B	
			Quercus rubra			
Δ	2	AL3	Serviceberry - single trunk	3.0" Cal.	B&B	
			Amelanchier laevis			
	2	AL2	Serviceberry - single trunk	2.0" Cal.	B&B	
			Amelanchier laevis			
	4	CC2	Eastern Redbud - single trunk	2.0" Cal.	B&B	
			Cercis canadensis			
				^		

PLANT LIST - INTERIOR (1) OLIAN KEY COMMON/BOTANICAL NAME SIZE SPEC

QUAN.	<u>KEY</u>	COMMON/ BOTANICAL NAME	SIZE	SPEC.	
20	JNB	New Blue Tams Juniper	24" Spr.	Cont.	
		Juniperus t. 'New Blue'			
60	RA	Gro-low Fragrant Sumac	24" Ht.	Cont.	
		Rhus aromatica 'Gro-low'			
32	SAW	Anthony Waterer Spirea	24" Ht.	Cont.	
		Spirea 'Anthony Waterer'			
14	TN6	Arborvitae	6' Ht.	B&B	
		Thuja nigra			
1	VD	Arrowood Viburnum	3' Ht.	B&B	
		Viburnum dentatum			

ARCHITECTS AND PLANNERS

550 E. NINE MILE ROAD FERNDALE, MICHIGAN, 48220

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248 477 3600 TEI

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> B SUBMISSION 03.21.18 PLANNING REVIEW 02.17.16 PUD ADMIN A RESUBMIT #2

ISSUE

KEY PLAN

DATE



NDU15.007 DRAWING TITLE

SITE PLANTING PLAN

DRAWING NUMBER

(B) ALL SINGLE STEM SHADE TREES TO HAVE STRAIGHT TRUNKS AND

(C) ALL SINGLE TRUNK SHADE TREES TO HAVE A CENTRAL LEADER,

TREES WITH FORKED OR IRREGULAR TRUNKS WILL NOT BE

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(E) ALL EVERGREEN TREES SHALL BE HEAVILY BRANCHED AND FULL

TO THE GROUND, SYMMETRICAL IN SHAPE AND NOT SHEARED

(F) NO MACHINERY IS TO BE USED WITHIN THE DRIPLINE OF EXISTING

TREES. HAND GRADE ALL LAWN AREAS WITHIN DRIPLINE OF

LANDSCAPE ARCHITECT PRIOR TO INSTALLATION OF THE PLANT

(G) ALL TREE LOCATIONS SHALL BE STAKED BY LANDSCAPE CONTRACTOR AND ARE SUBJECT TO THE APPROVAL OF THE

FROM ALL BUILDINGS, WALKS AND PAVED AREAS.

ALL PLANTING BEDS SHALL RECEIVE SHREDDED BARK MULCH.

OR OPEN CROWNS SHALL NOT BE ACCEPTED.

FOR THE LAST FIVE GROWING SEASONS.

SYMMETRICAL CROWNS. ONE SIDED TREES OR THOSE WITH THIN

BALLS <u>WILL BE REJECTED</u>.

SYMMETRICAL CROWNS.

(J) SEE SPECIFICATIONS FOR ADDITIONAL COMMENTS, REQUIREMENTS, PLANTING PROCEDURES AND WARRANTY STANDARDS.

PLANT MIX

EXISTING TREES.

MATERIAL.

EXCAVATE PLANT BEDS TO DEPTH SHOWN ON DETAILS -DISPOSE OF SPOILS OFF SITE.

SEE PLANTING DETAILS FOR DEPTH.

PLANTING BEDS AND PLANT PITS TO RECEIVE MIXTURE OF: 70% LOAM TOPSOIL, 10% COMPOST, 20% SAND;

ADDITIONALLY - HAND TILL INTO EVERY 150 SQ. FT. BED AREA AND/OR ADD TO EVERY ONE CUBIC YARD OF PLANT PIT MIX:

(1) 6 CU. FT. BALE ORGANIC COMPOST

(1) 40 LB BAG COMPOSTED POULTRY MANURE "CHICK MAGIC" 5-3-2 WWW.CHICKMAGIC.NET (262)495-6220 (1) 5 LB BAG SHEMINS 13-13-13 MULTI PURPOSE FERTILIZER

HAND TILL INTO BED TO MINIMUM DEPTH OF 12"

PLANT BEDS

ALL PLANT BEDS TO BE FULLY EXCAVATED TO DEPTH SHOWN ON DETAILS AND AREAS SHOWN ON PLANS, AND TO RECEIVE CONTINUOUS PLANT MIX AS SPECIFIED

MULCH

MULCH TO BE DOUBLE SHREDDED HARDWOOD BARK MULCH

NO GROUND WOOD PALETTE MULCH PERMITTED

TOPSOIL

CONTRACTOR TO TILL OR DISK SUBGRADE TO 4" DEPTH AND INSTALL 6" COMPACTED DEPTH TOPSOIL IN ALL LAWN AREAS - FROM ONSITE STOCKPILE OR PROVIDED TO COMPLETE THE PROJECT

LANDSCAPE EDGING

ALL LANDSCAPE EDGES ARE SHOVEL CUT

PLANT SPACING

FILL BED WITH PLANTS SPECIFIED. KEEP PLANTS AWAY FROM BUILDING 12" MATURE SIZE

WATERING

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LAWNS:

ALL PROPOSED LAWN AREAS TO BE NON-IRRIGATED SEED.

FRESH, CLEAN AND NEW CROP SEED MIXTURE. MIXED BY APPROVED

PURITY AND GERMINATION.

NON-IRRIGATED LAWN SEED MIXTURE PROPORTIONED BY VOLUME AS INDICATED BELOW:

20% 90% 95% 60% 95% TALL FESCUE 80%

STRAW MULCH: USED IN CRIMPING PROCESS ONLY. CLEAN OAT OR WHEAT STRAW WELL SEASONED BEFORE BAILING, FREE FROM MATURE SEED NEARING STALKS OR ROOTS OF PROHIBITED OR NOXIOUS WEEDS.

WATER: FREE OF SUBSTANCE HARMFUL TO SEED GROWTH. HOSES OR OTHER METHODS OF TRANSPORTATION FURNISHED BY CONTRACTOR.

- DO NOT PRUNE TERMINAL LEADER OR BRANCH TIPS. - PRUNE AWAY DEAD OR BROKEN BRANCHES ONLY. - REMOVE ALL LABELS, TAGS, TREE WRAP, TAPE OR STRING FROM TREE TRUNK AND CROWN. ----- PRUNE OFF SUCKERS. - FOLD DOWN OR PULL BACK STRING, BURLAP. PLASTIC OR SOIL TO EXPOSE THE TRUNK FLARE. SET ROOTBALL SO THAT TRUNK FLARE IS LEVEL TO GRADE, OR VERY SLIGHTLY HIGHER IN CLAY SOIL. - MULCH 2"-3.5" DEEP LEAVING 3" CIRCLE OF BARE SOIL AROUND TRUNK OF TREE. - IF POSSIBLE, WITHOUT DISTURBING DEVELOPED ROOTS, FOLD DOWN OR CUT AWAY BURLAP TO EXPOSE ROOTBALL. REMOVE ALL NON-DEGRADABLE MATERIALS, CUTTING AWAY WIRE BASKET TO 10" -BREAK UP (SCARIFY) SIDES OF PLANTING HOLE. CENTER ROOTBALL IN PLANTING HOLE. LEAVE BOTTOM OF PLANTING HOLE FIRM. DO NOT AMEND SOIL UNLESS PLANTING IN SEVERELY DISTURBED SOIL OR BUILDING RUBBLE. USE SHOVELS AND WATER TO SETTLE SOIL AND REMOVE AIR POCKETS AND FIRMLY SET TREE. HOLE WIDTH = 2-3x WIDTH OF ROOTBALL DO NOT STAKE UNLESS IN HEAVY CLAY SOIL, WINDY CONDITIONS, 3" OR GREATER DIAMETER TREE TRUNK OR LARGE CROWN, IF STAKING IS NEEDED DUE TO THESE STAKE WITH 2 x 2 HARDWOOD STAKES, OR APPROVED EQUAL, DRIVEN 6"-8" OUTSIDE OF LOOSELY STAKE TREE TRUNK TO ALLOW FOR TRUNK FLEXING. STAKE TREES JUST BELOW FIRST BRANCH WITH 2"-3" WIDE BELT-LIKE, NYLON OR PLASTIC STRAPS (2 PER TREE ON OPPOSITE SIDES OF TREE, CONNECT FROM TREE TO STAKE HORIZONTALLY, DO NOT USE ROPE OR WIRE THROUGH A HOSE.) REMOVE ALL STAKING MATERIALS AFTER 1 YEAR. REVISIONS REV. NO. DR.BY CH. BY DATE PUBLIC SERVICES DEPARTMENT CITY OF ANN ARBOR

LANDSCAPE DATA:

RIGHT-OF-WAY SCREENING -

TOTAL LENGTH:

TOTAL LENGTH:

TOTAL LENGTH:

TREES PROVIDED:

TREES PROVIDED:

TREES REQ. (1/30 LF.):

TREES REQ. (1/ 30 LF.):

TREES REQ. (1/30 LF.):

TREES REQ. (1/30 LF):

SHRUBS REQ. (1/4 LF):

INTERIOR ISLAND TREES - (IT) TOTAL VEHICULAR AREA

ISLAND PROVIDED:

ISLAND TREES PROVIDED:

LANDMARK TREE REPLACEMENTS - (R)

2X REPLACEMENT REQUIRED:

TOTAL PAYMENT 24 x \$200 = \$4800

CANOPY LOSS FEE CALCULATION:

REPLACEMENT TREES: THIRTEEN, 2.5" CALIPER TREES

TOTAL CALIPER INCHES OF REPLACEMENT TREES = 32.5"

08.15.2021 - CANOPY LOSS FEE CALCULATION:

SIX 2.0" CALIPER TREES = 12

REPLACEMENT TREES: FOUR 3.0" CALIPER TREES = 12

TOTAL CALIPER INCHES OF REPLACEMENT TREES = 24

TREE TO BE REMOVED: ONE 14" MAPLE

TOTAL DBH TO BE REMOVED = 14"

14" REMOVED - 32.5" ADDED = -18.5" NO CANOPY LOSS FEE REQUIRED

TREE TO BE REMOVED: ONE 24" MAPLE

TOTAL DBH TO BE REMOVED = 24"

24" REMOVED - 24" ADDED = 0"

NO CANOPY LOSS FEE REQUIRED

TOTAL LM REPLACEMENT REQ. (XQ.5):

08.15.2021 - LANDMARK TREE REPLACEMENTS - (R)

TREES PROVIDED:

TREES PROVIDED:

TOTAL LENGTH:

STATE STREET - STREET TREES (SS)

HENRY STREET - STREET TREES (HS)

WHITE STREET - STREET TREES (WS)

PARKING - CONFLICTING LAND USE BUFFER - (B)

6' HT. EVERGREEN SHRUBS PROVIDED:

3,300 - 49,999 SF REQUIRES 1:20'

8,460 SF / 20 SF ISLAND REQUIRED:

ISLAND TREES REQUIRED (1 TREE / 250 SF): 2 TREES

TOTAL CALIPER INCHES LM_TREES REMOVED: 68 INCHES

TOTAL LM REPLACEMENT PROVIDED: 36 INCHES

TOTAL CALIPER INCHES LM TREES REMOVED: 24 INCHES

TOTAL LM REPL. INCHES PROVIDED ONSITE: 24-INCHES TOTAL LA REPL. INCHES PAYMENT TO CITY: 24 INCHES

115 LF

264 LF

9 TREES

9 TREES

6 TREES

6 TREES

303 LF

10 TREES

7 TREES

75 SHRUBS

61 SHRUBS

8,460 SF

423 SF

465 SF

2 TREES

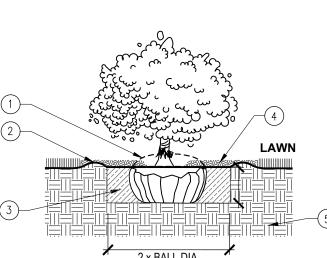
34 INCHES

4 TREES

4 TREES

TREE PLANTING DETAIL

NOT TO SCALE



PRUNE BRANCHES TO THIN OR MATCH, RETAIN NORMAL PLANT SHAPE. PRUNE DEAD BRANCHES

SHRUBS SHALL BEAR THE SAME RELATIONSHIP TO FINISH GRADE AS THEY BORE TO ORIGINAL GRADE.

TREE PLANTING DETAIL

SD-L-3

SHEET NO. _____ OF _

DR. BY ARG CH. BY CSS DRAWING NO.

SCALE NONE DATE 7-23-10

REMOVE ALL FIBER, PLASTIC OR METAL CONTAINERS.

KNIFE SLIT SIDE OF ROOT BALL 6 TIMES, 1" DEEP EACH

(1) REMOVE ALL OF BURLAP FROM ROOTBALL

(2) MOUND TO FORM SAUCER - FORM SOIL SAUCER WITH 3" HT. CONTINUOUS RIM (3) SPECIFIED PLANTING MIX - WATER &

TAMP TO REMOVE AIR POCKETS - 18" MIN. DEPTH OR DEPTH OF ROOT BALL. (4) 3" DEPTH MULCH - <u>DO NOT BURY</u> CROWN OF PLANT, PROVIDE A 4"
DIAMETER CLEAR AREA AROUND PLANT

> PRUNE BRANCHES TO THIN OR MATCH, RETAIN NORMAL PLANT SHAPE. PRUNÉ

SHRUBS SHALL BEAR THE SAME RELATIONSHIP TO FINISH GRADE AS

THEY BORE TO ORIGINAL GRADE.

REMOVE ALL FIBER, PLASTIC OR

KNIFE SLIT SIDE OF ROOT BALL 6

2 MOUND TO FORM SAUCER - FORM SOIL

3) SPECIFIED PLANTING MIX - WATER &

TAMP TO REMOVE AIR POCKETS - 18"

MIN. DEPTH OR DEPTH OF ROOT BALL.

(4) 3" DEPTH MULCH - <u>DO NOT BURY</u>

CROWN OF PLANT, PROVIDE A 4"
DIAMETER CLEAR AREA AROUND

PLANT CROWN

SAUCER WITH 3" HT. CONTINUOUS RIM

(5) UNDISTURBED SUBSOIL

DEAD BRANCHES

METAL CONTAINERS.

TIMES, 1" DEEP EACH

ROOTBALL

1) REMOVE ALL OF BURLAP FROM

CROWN

NOT TO SCALE

2 x BALL DIA. SHRUB PLANTING

5 UNDISTURBED SUBSOIL

SHRUB BED PLANTING DETAIL NOT TO SCALE



METHODS.

COMPOSED OF THE FOLLOWING VARIETIES, MIXED TO THE SPECIFIED PROPORTIONS BY WEIGHT AND TESTED TO MINIMUM PERCENTAGES OF

SEED TYPE PROPORTION PURITY GERMINATION KENTUCKY BLUEGRASS ANNUAL RYEGRASS

NO NOXIOUS WEED SEEDS PERMITTED.

ARCHITECTS AND PLANNERS

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A

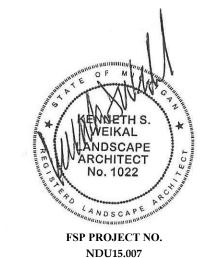
B 09.13.2021 TREE REPLACEMENT A 08.15.2021 TREE REPLACEMENT 06.04.2019 ASI-001 CITY REVIEW 04.01.2019 BULLETIN #1 02.20.2019 ADDENDUM #2 11.12.18 ADDENDUM #1 08.21.18 ADMIN. AMEND. B RESUBMISSION 2 07.24.18 PUD ADMIN. AMEND. B RESUBMISSION 1 06.08.18 PUB ADMIN AMEND.

03.21.18 PLANNING REVIEW 02.17.16 PUD ADMIN A RESUBMIT #2 ISSUE

B SUBMISSION

KEY PLAN

DATE



DRAWING TITLE

LANDSCAPE

NOTES & DETAILS

DRAWING NUMBER

1.2 DESCRIPTION

A. These general landscape work requirements apply to all landscape work

1.3 QUALITY ASSURANCE

- A. Comply with all applicable local, state and federal requirements regarding materials, methods of work, and disposal of excess and waste materials.
- 1. Obtain and pay for all required inspections, permits, and fees. Provide notices required by governmental authorities.

1.4 Project Conditions:

- A. Locate and identify existing underground and overhead services and utilities within contract limit work areas. (Call local utility hotline for utility staking). Provide adequate means of protection of utilities and services designated to remain. Repair utilities damaged during site work operations at Sub-contractor's expense.
- 1. When uncharted or incorrectly charted underground piping or other utilities and services are encountered during site work operations, notify the applicable utility company immediately to obtain procedure directions. Cooperate with the applicable utility company in maintaining active services in operation.
- 2. Locate, project, and maintain bench marks, monuments, control points and project engineering reference points. Re-establish disturbed or destroyed items at Sub-contractor's expense.
- 3. Perform landscape work operations and the removal of debris and materials to assure minimum interference with streets, walks, and other adjacent facilities.
- 4. Obtain governing authorities' written permission when required to close or obstruct streets, walks and adjacent facilities. Provide alternate routes around closed or obstructed traffic ways when required by governing authorities.
- 5. Using organic herbicides (NO Roundup) or machine methods, kill existing vegetation prior to planting, and seed installation.
- 6. Control dust caused by the work. Dampen surfaces as required. Comply with pollution control regulations of governing authorities.
- 7. Protect existing buildings, paving and other services or facilities on site and adjacent to the site from damage caused by site work operations. Cost of repair and restoration of damage items at Sub-contractor's expense.
- 8. Protect and maintain street lights, utility poles and services, traffic signal control boxes, curb boxes, valves and other services, except items designated for removal.
- 9. The General Contractor will occupy the premises and adjacent facilities during the entire period of construction. Perform landscape work operations to minimize conflicts and to facilitate General Contractor's use of the premises and conduct of his normal operations.
- 10. Perform landscape preparation work before commencing landscape construction.
- 11. Locate, protect and maintain active utilities and site improvements to
- 12. Provide necessary barricades, coverings and protection to prevent damage to existing improvements indicated to remain.

PART 2 - PRODUCTS

2.1 MATERIALS/EQUIPMENT:

As selected by the General Contractor, except as indicated.

PART 3 - EXECUTION

3.1 EXISTING UTILITIES:

Call local utility hotline, before construction begins. Information on the drawings related to existing utility lines and services is from the best sources presently available. All such information is furnished only for information and is not guaranteed. Excavate test pits as required to determine exact locations of existing

3.2 CLEARING:

- A. Locate and suitably identify trees and improvements indicated to remain see
- B. Protection fencing/soil erosion methods are to be installed prior to any work being done on site to ensure that the proper areas are located on-site. Altering fence lines must be approved by the General Contractor.
- C. Any equipment that compacts the soil in the areas of existing trees is not
- D. Protect existing trees scheduled to remain against injury or damage including cutting, breaking or skinning of roots, trunks or branches, smothering by stockpiled construction materials, excavated materials or vehicular traffic within branch spread. NO VEHICULAR TRAFFIC IS PERMITTED BENEATH DRIP LINE AT ANYTIME - all lawn areas to be worked by hand.
- E. Clear and grub areas within contract limits as required for site access and execution of the work.
- F. Remove trees, plants, undergrowth, other vegetation and debris, except items indicated to remain.
- G. Remove stumps and roots to a clear depth of 36" below sub-grades. Remove stumps and roots to their full depth within 5'0" of underground structures, utility lines, footings and paved areas.

3.3 DISPOSAL OF WASTE MATERIALS:

- A. Stockpile, haul from site and legally dispose of waste materials and debris. Accumulation is not permitted.
- B. Maintain disposal routes, clear, clean and free of debris.
- C. On site burning of combustible cleared materials is not permitted.
- D. Upon completion of landscape preparation work, clean areas within contract limits, remove tools and equipment. Site is to be clear, clean and free of materials and debris and suitable for site work operations.
- Materials, items and equipment not scheduled for reinstallation or salvaged for the General Contractor are the property of the Landscape Contractor. Remove cleared materials from the site as the work progresses. Storage and sale of Landscape contractors salvage items on site is not permitted.

SECTION 02211 **TOPSOIL PLACEMENT**

PART I - GENERAL

1.1 RELATED DOCUMENTS

A. Drawings and general provisions of Contract, including General and Supplementary Conditions and other Division 1 Specification Sections, apply to this Section.

1.2 DESCRIPTION

A. Perform topsoiling as shown and specified. The work includes: Topsoil

1.3 RELATED WORK SPECIFIED ELSEWHERE

A. Landscape Preparation Fine Grading Hydroseed Lawn

1.4 QUALITY ASSURANCE

- A. Testing and Inspection: For supplied and stockpiled topsoil only. Performed by a qualified independent testing laboratory, under the supervision of a
- B. Provide and pay for testing and inspection during topsoil operations. Laboratory, inspection services, and Soils Engineer shall be acceptable to the

Test representative material samples for proposed use.

Topsoil: (Supplied and stockpiled).

Test for pH factor: Mechanical analysis

Percentage of organic content Submit test reports to General Contractor / Landscape Architect

C. Sub-Contractor, or testing agency to make recommendations on type and quantity of additives required to establish satisfactory pH factor and supply of nutrients to bring nutrients to satisfactory level for planting trees, shrubs,

1.5 PROJECT CONDITIONS

- A. Known underground and surface utility lines are indicated on the drawings.
- as part of the landscaping work.
- C. Promptly repair damage to adjacent facilities caused by topsoil operations. Cost of repair at Sub-Contractor's expense.
- D. Promptly notify the General Contractor and Landscape Architect of unexpected

PART 2 - PRODUCTS

2.1 MATERIALS

- A. Topsoil: Supplied and stockpiled topsoil proposed for use must meet testing criteria results specified and conform to adjustments and recommended by soil test and Landscape Architect.
- B. Existing Topsoil: Review soil report. Topsoil to be stockpiled from excavated
- C. Provide clean and viable topsoil as required to complete job, include unit cost per cubic yard. Topsoil must meet testing criteria results specified. All processing, cleaning and preparation of this supplied topsoil to render it acceptable for use it the responsibility of the Sub-Contractor.
- D. Supplied topsoil, shall be fertile, friable and representative of local productive soil, capable of sustaining vigorous plant growth and free of clay lumps, subsoil, noxious weeds or other foreign matter such as stones, roots, sticks and other extraneous material, and with pH of soil range between 5.0 and 7.5.
- E. Frozen or muddy topsoil is not acceptable.
- F. Prepared topsoil shall be used in planting mixtures as specified in Trees, Plants, and Ground Cover; all beds prepared as specified.

PART 3 - EXECUTION

3.1 DESCRIPTION

- A. New Lawn and Planting areas: Provide and spread topsoil 4" minimum compacted depth in lawn areas, or as indicated on drawings. Provide trucking company trip tickets to General Contractor to verify topsoil delivery and quantities.
- B. Perform topsoiling within contract limits, including adjacent transition areas, to new elevations, levels, profiles, and contours indicated. Provide uniform levels
- C. For trees, shrubs, ground cover beds and plant mix for beds see Trees, Plants,
- D. Berming to be free flowing in shape and design, as indicated, and to blend into Architect or General Contractor's representative to verify final contouring before topsoil installation.
- E. Regardless of finish grading elevations indicated, it is intended that grading be such that proper drainage of surface water away from buildings will occur and that no low areas are created to allow ponding, or pockets of surface drainage. Sub Contractor to consult the General Contractor and Landscape Architect regarding variations in grade elevations before rough grading is completed.

3.2 CLEANING

A. Upon completion of topsoiling operations, clean areas within contract limits, remove tools, equipment and haul all excess topsoil off-site. Site shall be clear, clean, free of debris, and suitable for site work operations.

END OF SECTION 02211

SECTION 02485 FINE GRADING

PART 1 - GENERAL

1.1 GENERAL:

Drawings and general provisions of the Contract, including General and Supplementary Conditions apply to work specified in this section.

1.2 WORK INCLUDED:

Provide all labor, materials, necessary equipment and services to complete the Fine

Grading work, as indicated on the drawings, as specified herein or both, except as for items specifically indicated as "NIC ITEMS".

Related work specified elsewhere:

Hydroseed Lawns Tree, Plants and Ground Covers

1.3 SITE INSPECTION:

The Contractor shall visit the site and acquaint himself with all existing conditions. The Contractor shall be responsible for his own subsurface investigations, as necessary, to satisfy requirements of this Section. All subsurface investigations shall be performed only under time schedules and arrangements approved in advance by the Landscape Architect or Owner's Representative.

1.4 EXISTING CONTOURS:

- A. Drawings show proposed final grading.
- B. Major demolition, site preparation and general site earthwork will be accomplished under another, earlier contract. Verify that contours and grades established under that Contract are grades shown on grading plans. Make whatever corrections and/or repairs necessary to make finish grades consistent with the requirements of the grading drawings and specifications.

1.5 UTILITIES:

- A. Before starting site operations verify that the earlier Contractors have disconnected all temporary utilities which might interfere with the fine grading
- B. Locate all existing, active utility lines traversing the site and determine the requirements for their protection. Preserve in operation condition all active utilities adjacent to or transgressing the site that are designated to remain.
- C. Observe rules and regulations governing respective utilities in working under requirements of this section. Adequately protect utilities from damage. Record location of active utilities.

1.6 QUALITY ASSURANCE

- A. Adhere to requirements of all applicable building codes and other public agencies having jurisdiction upon the work.
- B. Primary emphasis should be given to the aesthetic appearance and functioning of berming and swales, as directed by the Landscape Architect or Owner's Representative. The Contractor shall employ skilled personnel and any necessary equipment to insure that finish grading is smooth, aesthetically pleasing, drains well and is ideal for receiving seed and plant materials.

PART 2 - MATERIALS

2.1 TOPSOIL:

A. Landscape contractor shall provide and install 4" compacted minimum depth topsoil to final grade in new lawn areas as shown on drawings. Planting bed areas - see Planting Details.

PART 3 - EXECUTION

3.1 JOB CONDITIONS:

- A. Dust Control: use all means necessary to prevent dust from construction operations from being a nuisance to adjacent property owners and from damaging finish surfaces on walks, paving, etc. Methods used for dust control are subject to approval by the Landscape Architect or Owner's Representative.
- B. Burning: On-site burning will not be permitted.
- C. Protection: use all means necessary to protect curbs, gutters, sprinklers, utilities and vegetation designated to remain, and in the event of damage, immediately make all repairs, replacements and dressings to damaged plants necessary to the approval of the Landscape Architect. Contractor shall incur all

3.2 SCHEDULING

A. Schedule all work in a careful manner with all necessary consideration for adjoining property owners and the public.

cost for the replacement of damaged objects and vegetation.

B. Coordinate schedule with other Contractors to avoid conflicts with their work.

3.3 GRADING:

- A. Contractor shall establish finished grades as shown on the Drawing (s) and as directed by the Landscape Architect, including areas where the existing grade has been disturbed by other work.
- B. Finished grading shall be smooth, aesthetically pleasing, drain well and ready to receive seed and other plant material to full satisfaction of the Owner's Representative and Landscape Architect.

3.4 CORRECTION OF GRADE:

- A. Bring to required grade levels areas where settlement, erosion or other grade changes occur. Adjust grades as required to carry drainage away from buildings and to prevent ponding around the buildings, on pavements and in
- B. Remove all rock or objectionable material larger than 1" any direction prior to commencing landscaping.
- C. Contractor shall be responsible for stabilizing grades by approved methods prior to landscaping, and shall be responsible for correction of grades as mentioned above, and clean-up of any washouts or erosion.

END OF SECTION 02485

SECTION 02486 SEEDED LAWN

PART 1 - GENERAL

1.1 RELATED DOCUMENTS

Drawings and general provisions of Contract, including General and Supplementary

Conditions and other Division 1 Specification Sections, apply to this Section.

1.2 DESCRIPTION

A. Provide seeded lawns as shown and specified. The work includes:

Soil Preparation Hvdroseed Lawn Mulching

B. Related work specified elsewhere:

Landscape Preparation **Topsoil Placement** Trees, Plants and Ground Covers

Landscape Warranty

1.3 SUBMITTALS

A. Submit seed vendor's certification for required grass seed mixture, indicating percentage by weight, and percentages of purity, germination, and weed seed for each grass species.

1.4 DELIVERY, STORAGE AND HANDLING

A. Deliver seed and fertilizer materials in original unopened containers, showing weight, analysis and name of manufacturer. Store in a manner to prevent wetting and deterioration.

1.5 PROJECT CONDITIONS

seeding operations.

surface has been completed.

- A. Work notification: Notify Landscape Architect or General Contractor's representative at least seven (7) working days prior to start of seeding
- B. Protect existing utilities, paving and other facilities from damage caused by
- C. Perform seeding work only after planting and other work affecting ground
- D. Provide hose and lawn watering equipment as required.
- E. If an irrigation system is to be installed prior to seeding, locate, protect and maintain the irrigation system during seeding operations. Repair irrigation system components damaged during seeding operations at the Sub-Contractor's expense.

1.6 WARRANTY

A. See Landscape Warranty Section.

PART 2 - PRODUCTS

2.1 MATERIALS

- A. Topsoil for Seeded Areas: See Topsoil Placement and Drawings.
- B. Lawn Seed: Fresh, clean and new crop seed mixture. Mixed by approved methods.
- Composed of the following varieties, mixed to the specified proportions by

•	•		•		,
weight and tested to	minimum pe	ercentages of	f purity and	germination.	

D. Irrigated Lawn Seed Mixture proportioned by volume as indicated below:

Seed Type	Proportion	Purity	Germination
Kentucky Bluegrass	50%	90%	75%
Annual Ryegrass	20%	95%	80%

30%

95% 80%

No noxious weed seeds permitted

No noxious weed seeds permitted

Fertilizer for Non-Irrigated Lawn 10-10-10.

Penn Lawn Fescue

Fertilizer for Irrigated Lawn 12-12-12.

Non-Irrigated Lawn Seed Mixture proportioned by volume as indicated below:				
Seed Type	Proportion	Purity	Germination	
Pennfine Perennial Rye Kentucky 28# Common Bluegrass Penn Lawn Fescue	20% 20% 60%	90% 90% 90%	90% 90% 85%	

- F. Granular, non burning product composed of not less than 50% organic slow acting, guaranteed analysis professional fertilizer.
- G. Ground Limestone: Used if required by soil test report. Containing not less
- than mesh sieve and 90% will pass through a 20% mess sieve. H. Hydroseed - mulch and tackifier - submit cutsheets for review and approval
- I. Water: Free of substance harmful to seed growth. Hoses or other methods to transpiration furnished by Sub Contractor. J. North American Green S150 short term double net erosion control blanket

drawings, after hydroseeding operations are completed.

shall be installed per manufacturer on any slopes over 1:10 or as shown on

PART 3 - EXECUTION

3.1 INSPECTION

- A. Landscape Architect or General Contractor's representative must approve finish surfaces, grades, topsoil quality and depth. Do not start seeding work until unsatisfactory conditions are corrected.
- 3.2 PREPARATION SEEDED LAWN AREAS
- A. See Site Preparation Section.
- B. Limit preparation to areas which will be immediately seeded C. Kill and remove existing vegetation with organic products / herbicides (NO Roundup) or by machine / hand methods prior to seeding.
- in any dimension and sticks, roots, rubbish and extraneous matter. E. Grade lawn areas to a smooth, free draining even surface with a loose, moderately coarse texture. Roll and rake, remove ridges and fill depressions as required to drain.

D. Loosen topsoil of lawn areas to minimum depth of 4". Remove stones over 1"

- F. Apply limestone to supplied topsoil if required by soil test report at rate determined by the soil test, to adjust pH of topsoil to not less than 6.0 no more than 6.8. Distribute evenly by machine and incorporate thoroughly into
- G. Apply fertilizer to indicated turf areas at a rate equal to 1 lb. of actual nitrogen per 1,000 sq. ft. (43 lbs./area).
- H. Apply fertilizers by mechanical rotary or drop type distributor, thoroughly and evenly incorporated with soil to a depth of 1" by discing. Fertilize areas inaccessible to power equipment with hand tools and incorporate into soil.
- I. Restore prepared areas to specified condition if eroded, settled or otherwise

- A. Preferred spring seeding times, are between April 1, and June 1, and fall seeding between August 15, and October 15. Attempt to seed during these
- C. Perform seeding operations when the soil is dry and when the winds do not
- Install seed by Hydroseed method.
- E. Provide soil erosion planting mat where grade conditions require to stabilize the planting area.

3.4 ESTABLISHING DENSE LAWN - 2 MONTH GERMINATION PERIOD

- A. Within first two months after installation, establish dense lawn of permanent permitted. Damage to seeded area resulting from erosion to be repaired.
- B. In the event that a dense lawn does not establish during first germination
- C. Should the seeded lawn become largely weeds after germination, installer is responsible to kill the weeds and reseed the proposed lawn areas to produce a dense turf, as specified within first two months after installation.

A. Perform cleaning during installation of the work and upon completion of the work to the approval of the Landscape Architect. Remove from site all excess materials, debris and equipment. Repair damage resulting from seeding operations.

3.7 ACCEPTANCE

END OF SECTION 02486

disturbed after fine grading and prior to seeding.

3.3 INSTALLATION

- times if possible, but not required.
- B. Seed immediately after preparation of bed. Seed indicated areas within contract limits and areas adjoining contract limits disturbed as a result of construction operations.
- exceed five (5) miles per hour velocity.
- grasses, free from lumps and depressions. Any area failing to show uniform germination to be re-seeded; continue until dense lawn established. No weeds Scattered bare spots over 5% not allowed.
- period, return to project to reseed to establish dense lawn.
- 3.5 CLEANING
- 3.6 WARRANTY
- A. See Landscape Warranty Standards

A. See Landscape Warranty Standards.

550 E. NINE MILE ROAD

FERNDALE, MICHIGAN, 48220

PHONE 248.543.4100 FAX 248.543.4141

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SEAL

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248 477 3600 TEI

B 09.13.2021 TREE REPLACEMENT A 08.15.2021 TREE REPLACEMENT 06.04.2019 ASI-001 CITY REVIEW 04.01.2019 BULLETIN #1 02.20.2019 ADDENDUM #2 11.12.18 ADDENDUM #1 08.21.18 ADMIN. AMEND. B RESUBMISSION 2 07.24.18 PUD ADMIN. AMEND. B RESUBMISSION 1 06.08.18 PUB ADMIN AMEND. B SUBMISSION

ISSUE

DATE

02.17.16 PUD ADMIN A

03.21.18 PLANNING REVIEW

KEY PLAN

RESUBMIT #2



DRAWING NUMBER

DRAWING TITLE

SPECIFICATIONS



1.1 RELATED DOCUMENTS

distribution and finish grading per indicated depth of topsoil.

Trees, Plants and Ground Covers

registered professional engineer, specializing in soils engineering.

perennials and lawns.

- Also see Landscape Preparation Section.
- B. Protect existing trees, plants, lawns and other features designated to remain
- sub-surface conditions.
 - areas. Provide remaining topsoil to complete work per plans and specs.

- and slopes between new elevations and existing grades.
- and Ground Cover Section. existing grades gradually so that toe of slope is not readily visible. Landscape

1.2 DESCRIPTION

PART 1 - GENERAL

Provide trees, plants and ground covers as shown and specified. The work includes: Soil Preparation Trees, Plants and Ground Covers Planting Mixes Mulch and Planting Materials

1.3 RELATED WORK SPECIFIED ELSEWHERE

Soil Percolation Tests

Irrigation System Landscape Preparation Landscape Maintenance and Warranty Standards Seeding Topsoil Placement

1.4 QUALITY ASSURANCE

- A. Plant names indicated, comply with "Standardized Plant Names" as adopted by the latest edition of the American Joint Committee of Horticultural Nomenclature. Names of varieties not listed conform generally with names accepted by the nursery trade. Provide stock true to botanical name and legibly tagged.
- B. Comply with sizing and grading standards of the latest edition of "American Standard for Nursery Stock." A plant shall be dimensioned as it stands in its natural position.
- C. All plants shall be nursery grown under climatic conditions similar to those in the locality of the project for a minimum of two years.
- D. Stock furnished shall be at least the minimum size indicated. Larger stock is acceptable, at no additional charge. Larger plants shall not be cut back to size indicated.
- E. Provide "specimen" plants with a special height, shape or character of growth. Landscape Subcontractor to tag specimen trees or shrubs at the source of supply. The Landscape Subcontractor shall inspect all plant material at source prior to Landscape Architect's approval. Landscape Subcontractor shall accompany Landscape Architect on final selection trip. The Landscape Architect will inspect specimen selections for suitability and adaptability to selected location. When specimen plants cannot be purchased locally, provide sufficient photographs of the proposed specimen plants for approval.
- F. Plants may be inspected and approved at the place of growth, for compliance with specification requirements for quality, size and variety.
- G. Such approval shall not impair the right of inspection and rejection upon delivery at the site or during the progress of the work.
- H. Provide percolation testing by filling plant pits with water and monitoring length of time for water to completely percolate into soil. Submit test results to landscape architect prior to starting work.

1.5 SUBMITTALS

Provide and pay for material testing. Testing agency shall be acceptable to the Landscape Architect. Provide the following data:

Compost: Loss of weight by ignition Moisture absorption capacity

Submit the following material samples to Landscape Architect:

Compost Shredded bark mulch Planting accessories Pre-emergent herbicides Plant fertilizers

Submit the following materials certification to Landscape Architect:

Topsoil source and pH value Compost

Plant fertilizer 1.6 DELIVERY, STORAGE AND HANDLING

- A. Deliver fertilizer materials in original, unopened and undamaged containers showing weight, analysis and name of manufacturer. Store in manner to prevent wetting and deterioration.
- B. Take all precautions customary in good trade practice in preparing plants for moving. Workmanship that fails to meet the highest standards will be rejected. Spray deciduous plants in foliage with an approved "Anti Desiccant" immediately after digging to prevent dehydration. Dig, pack, transport and handle plants with care to ensure protection against injury. Inspection certificates required by law shall accompany each shipment invoice or order to stock and on arrival, the certificate shall be filed with the General Contractor's representative. Protect all plants from drying out. If plants cannot be planted immediately upon delivery, properly protect them with soil, shredded bark mulch or in a manner acceptable to the General Contractor's representative. Water heeled in plantings daily. No plant shall be bound with rope or wire in a manner that could damage or break the branches.
- C. Cover plants transported on open vehicles with a protective covering to
- D. Frozen or muddy topsoil is not acceptable.

1.7 PROJECT CONDITIONS

- A. See Landscape Preparation Section.
- B. Work Notification: Notify Landscape Architect at least seven working days prior to installation of plant material.
- C. Protect existing utilities, paving and other facilities from damage caused by landscaping operations.
- D. A complete list of plants, including a schedule of sizes, quantities and other requirements is shown on the drawings and the proposal form. In the event that quantity discrepancies or material omissions occur in the proposal form, Sub Contractor shall notify the Landscape Architect during the proposal bidding process.
- E. If an irrigation system is to be installed prior to planting, locate, protect and maintain the irrigation system during planting operations. Repair irrigation system components, damaged during planting operations, at the Landscape Subcontractor's expense.
- The Landscape Subcontractor shall inspect existing soil conditions in all areas of the site where his operations will take place, prior to the beginning of work. It is the responsibility of the Landscape Subcontractor to notify the General Contractor's Representative and the Landscape Architect in writing of any conditions which could affect the survivability of plant material to be installed.

1.8 WARRANTY

Refer to Landscape Maintenance and Warranty Standards

2.1 MATERIALS

- A. Plants: Provide plants typical of their species or variety; with normal, densely developed branches and vigorous, fibrous root systems. Provide only sound, healthy, vigorous plants free from defects, disfiguring knots, sunscald injuries, frost cracks, abrasions of the bark, plant diseases, insect eggs, borers, and all forms of infestation. All plants shall have a fully developed form without voids and open spaces.
- 1. Dig balled and burlapped plants with firm, natural balls of earth of sufficient diameter and depth to encompass the fibrous and feeding root system necessary for full recovery of the plant. Provide ball sizes complying with the latest edition of the "American Standard for Nursery Stock." of larger as required on drawings. Cracked or mushroomed balls are not acceptable.
- Provide tree species that mature at heights over 25'-0" with a single, main trunk. Trees that have the main trunk forming a "Y" shape are not
- acceptable. 3. Plants planted in rows shall be matched in form. (see specimen stock).
- 4. Plants larger than those specified in the plant list may be used when acceptable to the Landscape Architect.
- 5. If the use of larger plants is acceptable, increase the spread of roots or
- root ball in proportion to the size of the plant. 6. The height of the trees, specified by height, measured from the crown of the roots to the top of the top branch, shall not be less than the minimum
- 7. No pruning wounds shall be present with a diameter of more than 1" and such wounds must show vigorous bark on all edges.
- 8. Evergreen trees shall be unsheared and branched to the ground.
- 9. Shrubs and small plants shall meet the requirements for spread and height indicated on the drawings.
- B. Bare-root plants: Dug with adequate fibrous roots, to be covered with a uniformly thick coating of mud by being puddled immediately after they are dug or packed in moist straw or peat moss.
- C. Container Grown Stock: Grown in a container for sufficient length of time for the root system to have developed to hold its soil together, firm and whole.
- 1. No plants shall be loose in the container.

size designated on the drawings.

- Container stock shall not be root bound.
- 3. The measurements for height shall be taken from the ground level to the average height of the top of the plant and not the longest branch.
- 4. Single stemmed or thin plants will not be accepted.

bruises or other root or branch injuries.

- 5. Side branches shall be generous, well twigged and the plant as a whole well bushed to the ground.
- 6. Plants shall be in a moist, vigorous condition, free from dead wood.
- D. Collected Stock Consists: of plants growing under natural conditions in soils and climate as exist at location to be planted, in locations lending themselves to proper collecting practices. Root system (balls) to be at least twenty-five (25%) percent larger than specified for nursery grown material.
- E. Specimen Stock: All specimen designated plantings are to be nursery grown, fully developed, excellent quality and typical example of the species. Plants designated to be planted in rows must be matched, symmetrical and uniform in height, spread, caliper and branching density.
- 1. Matched plantings should be obtained from same nursery and, preferably, from same row or line. All specimen material will be approved by Landscape Architect at nursery.
- F. Topsoil for Planting Mix: Fertile, friable, natural topsoil of loamy character, without admixture of subsoil material, obtained from a well drained arable site, Reasonably free from clay, lumps, coarse sands, stones, plants, roots, sticks and other foreign materials with acidity range of between pH 6.0 and 6.8.
- G. Compost: Brown to black in color, weed and seed free.
- H. Planting Mixture Type A Trees: Standard planting backfill shall be a mixture of 50% native soil (excavated from plant pits), 50% topsoil. Add peat, fertilizer Type "A" and "B" to planting mixture per manufacturer's requirements, follow planting details and planting notes on drawings.
- Planting Mixture Type B Perennial Flowers, Groundcover Beds and ericaceous Plants: Planting backfill shall be a mixture of 50% screened topsoil, 40% sand and 10% compost. All existing soil shall be excavated and removed. Adding fertilizer types "A" and "B" to mixture per manufacturer's requirements. Follow planting details. Planting Mixture Type C for Annual Flower Beds: Same as Type "B". Submit a sample to the Landscape Architect for approval prior to installation.
- J. Plant Fertilizer Type A to be "Composted Chicken Manure" applied per manufacturer recommendations. www.chickmagic.net
- K. Plant Fertilizer Type B to be "Shemins 13-13-13". Apply per manufacturer recommendations. Shemin's 1-313-291-1200
- L. Bone Meal 5 lbs. per cubic yard of soil mixes.
- M. Lime to be ground dolomitic limestone, ninety-five (95%) percent passing through #100 mesh screen. Use to adjust soil pH only, under direction of
- N. Sand to be clean, coarse, ungraded conforming to ASTM-C-3 for fine aggregates.
- O. Anti-Desiccant: Protective film emulsion providing a protective film over plant surfaces; permeable to permit transpiration. Mixed and applied in accordance with Manufacturer's instructions.
- P. Shredded bark mulch shall be double processed dark shredded hardwood bark that is clean, free of debris and sticks. Materials shall be uniform in size, shape and texture. Submit samples to General Contractor for approval prior to installation. Install mulch to finish grade, level smooth, without ridges, humps or depressions.
- Q. Water: Free of substances harmful to plant growth. Hoses or other methods of transportation furnished by Sub Contractor.
- R. Stakes for Staking: Hardwood, 2" x 2" x 8'-0" long. Stakes for Guying: Hardwood, 2" x 2" x 36" long.
- S. Guying/Staking strap 3/4" Arbortie nylon strap (NO WIRE AND HOSE
- T. Tree Wrap: Not to be used.

PART 3 - EXECUTION

3.1 INSPECTION

Examine proposed planting areas and conditions of installation. Do not start planting work until unsatisfactory conditions are corrected.

3.2 PREPARATION

- A. Planting shall be performed only by experienced workmen familiar with planting procedures under the supervision of a qualified supervisor.
- B. Individual plant locations shall be staked on the project site by the Landscape Contractor and approved by the Landscape Architect before any planting pits are dug. The Landscape Architect reserves the right to adjust plant material locations to meet field conditions, without additional cost to the General Contractor/ Owner.
- C. Planting pits shall be round, with vertical sides and flat bottoms, and sized in accordance with outlines and dimensions shown on the planting details.
- D. Accurately stake plant material according to the Drawings. Stakes shall be above grade and painted a bright color to be clearly visible for inspection.
- E. If obstructions are encountered that are not indicated, do not proceed with planting operations until alternative plant locations have been selected and approved in writing by the Landscape Architect. Where location or spacing dimensions are not clearly shown, request clarification by the Landscape
- F. See drawings for planting details.

3.3 TIME OF PLANTING

- A. Evergreen material: preferred evergreen planting times are between September 1 and October 15, or in spring before new growth begins. Attempt to install plantings during these times if possible, but not required. If project requirements require planting at other times, plants shall be sprayed with anti-desiccant prior to planting operations.
- B. Deciduous material: preferred deciduous planting times are while plants are in a dormant condition. Attempt to install plantings during dormant condition if possible, but not required. If deciduous trees are planted in leaf, they shall be sprayed with anti-desiccant prior to planting operation.

3.4 VEGETATION REMOVAL

- A. General: See Landscape preparation.
- 1. Strip existing grass and weeds, including roots from all bed areas leaving the soil surface one (1") inch below finish grade.
- 2. Using organic herbicides (NO Roundup) or machine methods, kill existing vegetation prior to planting in all ground cover beds, evergreen and shrubbery beds and all mulch areas. Clean area of all dead material after five (5) days.
- 3. Herbicides to be applied by licensed applicator as required by the State.
- Excavate circular plant pits with vertical sides, except for plants specifically indicated to be planted in beds. Provide plant pits per planting details. Depth of pit shall accommodate the root system. Scarify the bottom of the pit to a depth of 6".
- 5. Provide premixed planting mixture Type "A" for use around the balls and roots of all deciduous and evergreen tree plantings.
- B. Ground Cover Beds, Perennial Flower Beds and Ericaceous Plant Beds: Excavate existing soil to 12" depth over entire bed area and remove soil from site. Scarify bottom of bed to a 4" depth. Set plants according to Drawings and backfill entire bed with premixed planting mixture Type "E
- C. Mass Shrub Beds/Hedge Beds: Excavate existing soil to 12" minimum depth or depth of rootball over entire bed area and remove soil from site. Scarify bottom of the bed to a 4" depth. Set plants according to drawings and Specifications. Backfill entire bed with (premixed) specified planting mixture Type "A".
- D. Annual Flower Beds: Excavate existing soil to 8" depth over entire bed area and remove soil from site. Scarify bottom of bed to 4" depth. Backfill entire bed to an 8" depth with premixed planting mixture Type "B".

3.5 INSTALLATION

- A. Set plant material in the planting pit to proper grade and alignment. Set plants upright, plumb and faced to give the best appearance or relationship to each other or adjacent structure. Set plant material 2"-3" above the finish grade. Remove top of ball and excess soil to expose the root flare at base of trunk. Raise or lower tree for root flare to be a correct level to grade outside of planting pit. No filling will be permitted around trunks or stems. Backfill the pit with planting mixture and soil removed from top of ball. Do not use frozen or muddy mixtures for backfilling. Form a ring of soil around the edge of each planting pit to retain water.
- B. After balled and burlapped plants are set, tamp planting soil mixture around bases of balls and fill all voids.
- C. Remove all burlap, ropes and wires from the top 1/2 of root ball.
- D. Space ground cover plants in accordance with indicated dimensions. Adjust spacing as necessary to evenly fill planting bed with indicated quantity of plants. Plant to within 12" of trunks of trees and shrubs within planting bed and to within 6" of edge of bed.
- E. Spread and arrange roots of bare rooted plants in their natural position. Work in planting mixture. Do not mat roots together. Cut all broken and frayed roots before installing planting mixture.
- F. Deep root water immediately after planting, ensuring that root zones are saturated.

3.6 MULCHING

Mulch trees and shrub planting pits and shrub / perennial beds with double shredded bark mulch immediately after planting - see planting details for depths. Thoroughly water mulched areas. After watering, rake mulch to provide a uniform finished surface. Do not over mulch or form "volcanoes"

Mulch ground cover beds with shredded bark mulch prior to planting - see planting details for depth. Plant ground cover through mulch.

SECTION 02490 TREES, PLANTS AND GROUND COVERS

- 3.7 WRAPPING, GUYING AND STAKING
- A. Inspect trees for injury to trunks, evidence of insect infestation and improper pruning before wrapping.
- Guy with "Arbortie" nylon straps per planting details
- Stake/guy all trees immediately after installation. When high winds or other conditions which may effect tree survival or appearance occur during the warranty period, the Sub Contractor shall immediately repair the staking/guying.
- Stake deciduous trees under 4" caliper. Stake evergreen trees under 6'-0" tall with 2 x 2 cedar stakes, two (2) per tree.
- Guy deciduous trees 4" caliper and over. Stake evergreen trees 6'-0" tall
- All work shall be acceptable to the Landscape Architect/ Owners

and over with metal fence post, three (3) per tree.

G. Remove guys, straps, stakes and fill stake holes at end of warranty period.

- Prune branches of deciduous stock, after planting, to balance the loss of roots and preserve the natural character appropriate to the particular plant requirements. In general, remove 1/4 to 1/3 of the leaf bearing buds, proportion shall in all cases be acceptable to the Architect. Remove or cut back broken, damaged and unsymmetrical grown of new wood.
- Multiple leader plants: Preserve the leader which will best promote the symmetry of the plant. Cut branches flush with the trunk of main branch, at a point beyond a lateral shoot or bud a distance of not less than 1/2 the diameter of the supporting branch. Make cut on an angle.
- C. Prune evergreens only to remove broken or damaged branches.

3.9 MAINTENANCE

See Landscape Warranty Standards.

3.10 CLEANING

Perform cleaning during installation of the work daily and upon completion of the work. Remove from site all excess materials, soil, debris and equipment. Repair damage resulting from planting operations.

END OF SECTION 02490

SECTION 02491 LANDSCAPE ONE (1) YEAR WARRANTY STANDARDS

PART 1 - GENERAL

1.1 RELATED DOCUMENTS

A. Drawings and general provisions of Contract, including General and Supplementary Conditions and other Division 1 Specification Sections, apply to this Section.

1.2 DESCRIPTION:

- A. The requirements of the Section include a one (1) year warranty period from date of acceptance of installation performed by the General Contractor's
- Representative and Landscape Architect 1.3 RELATED WORK SPECIFIED ELSEWHERE:
 - Trees, Plants and Ground Covers
- 1.4 ACCEPTANCE OF INSTALLATION

A. Hvdroseeding

A. At the completion of all landscape installation, or pre-approved portions thereof, the Landscape Subcontractor shall request in writing an inspection for Acceptance of Installation in which the Landscape Subcontractor, Landscape Architect, and General Contractor's Representative shall be present. After this inspection a punch list will be issued by the Landscape Architect. Upon completion of all punch list items, the Landscape Architect and/or General Contractor's Representative shall reinspect the project and issue a written statement of Acceptance of Installation and establish the beginning of the Project Warranty Period. At the time of acceptance all plant material shall be vigorous health.

It is the responsibility of the Landscape Subcontractor to make the above written request for inspection of installation in a timely fashion. If there is plant material loss prior to the Landscape Subcontractor's written request for inspection of installation, the Landscape Contractor shall make all replacements of this dead material at no additional cost. These replacements are not considered to be the required one (1) replacement of dead plant material by the Landscape Subcontractor during the one (1) year project warranty period, as outlined below.

Landscape work may be inspected for acceptance in parts agreeable to General Contractor's Representative and Landscape Architect provided work offered for inspection is complete, including contractor responsibilities as required.

For work to be inspected for partial acceptance, the Landscape Subcontractor shall provide a drawing outlining work completed and supply a written statement requesting acceptance of this work completed to date.

PROJECT WARRANTY

A. The Project Warranty Period begins upon written preliminary acceptance of the project installation by Landscape Architect and General Contractor's

The Landscape Subcontractor shall guarantee trees, shrubs, ground cover beds and seeded areas through construction and for a period of one (1) year after date of Acceptance of Installation against defects including death and unsatisfactory growth, except for defects resulting from neglect, abuse or damage by others or unusual phenomena or incidents which are beyond Landscape Subcontractor's control.

- B. Landscape subcontractor shall provide a list of procedures in writing to the Owner, for caring/ maintaining for the new landscape installation - trees, shrubs, ground-covers, lawns, irrigation system if provided, etc. - for the first year, after being turned over by the sub contractor.
- C. Landscape subcontractor will only be responsible for replacing up to 5% dieback replacements for plant materials.

1.6 CONTRACTOR RESPONSIBILITIES DURING ONE (1) YEAR PROJECT WARRANTY

- A. If irrigation system is present, Landscape Subcontractor shall set clock, timers and review entire control system and clock settings with onsite property management personnel.
- B. If irrigation system is not present, Landscape Contractors shall mark up a planting plan with watering schedule for trees, shrubs and perennials for use by onsite property management personnel, to keep plant material watered and healthy.
- of any plant materials during the one (1) year Project Warranty Period. These include those which are dead or in the opinion of the Landscape Architect are in an unhealthy or unsightly condition, or having lost natural shape, resulting from dieback, excessive pruning or inadequate or improper maintenance as part of the guarantee. Prior to any replacements, Landscape Subcontractor shall review individual plants in question with Landscape Architect to determine reason for plant demise.
- and planting procedures to receive approval of replacement materials by
- E. Costs for replacements are assumed part of bid quotations and therefore will
- G. Landscape Subcontractor shall keep guy straps taut and raise tree balls

Remove and replace trees, shrubs or other plants found to be dead or in unhealthy condition. Remove rejected plants and materials promptly. Make replacements during the following normal planting schedule. Replace trees and shrubs which are in doubt, unless, in opinion of Landscape Architect it is advisable to extend Project Warranty Period for full growing season. Remove all stakes, guy straps, tree wrap paper, dead twigs and branches from tree and plant materials at the end of this warranty period. Repair all lawns or bed areas disturbed by plant replacement operations.

- H. If initial planting is in the Fall, the Landscape Contractor shall apply antidesiccants on evergreen trees and evergreen shrub beds within 150' of major streets and drives no later than December 1, before the project
- 1.7 CONTRACTOR RESPONSIBILITIES OF SEEDED LAWN AREAS
- A. When lawn reaches 3" in height it shall be cut to 2" in height. Natural areas
- B. The Landscape Subcontractor shall cut the lawn two times before being reviewed to determine if the "Acceptance of Installation" will be granted.
- assume all lawn maintenance and watering responsibilities.

1.8 FINAL ACCEPTANCE UPON CONCLUSION OF THE WARRANTY PERIOD

Subcontractor shall request a project inspection for final acceptance in which the General Contractor, Landscape Architect and Owner's Representative shall be present. After this inspection, a punch list will be issued by the Landscape Architect. Upon completion of all punch list items, the Landscape Architect and the Owner's Representative shall re-inspect the project and issue a Written Statement of Final Acceptance. Upon acceptance, Owner is responsible for all areas.

To insure guarantee standards, the following warranty procedures for trees, shrubs, and ground covers shall be executed during construction and for the full Project Warranty Period.

- C. Landscape Subcontractor shall be responsible for only one (1) replacement
- D. Replacements must meet specifications i.e. quality, species of plant material
- not result in an additional cost to General Contractor or Landscape Architect.
- F. Areas damaged as result of replacement operation are to be restored by Landscape Subcontractor at no cost to the General Contractor or Landscape Architect.

- warranty.
- shall not be cut.
- C. After the Acceptance of Installation is granted, property management will
- A. At the conclusion of the Project Warranty Period the Landscape

END OF SECTION 02491

NO REVISIONS

A 08.15.2021 TREE REPLACEMENT 06.04.2019 ASI-001 CITY REVIEW 04.01.2019 BULLETIN #1 02.20.2019 ADDENDUM #2 11.12.18 ADDENDUM #1 08.21.18 ADMIN. AMEND. B RESUBMISSION 2 07.24.18 PUD ADMIN. AMEND. B RESUBMISSION 1 06.08.18 PUB ADMIN AMEND. B SUBMISSION 03.21.18 PLANNING REVIEW 02.17.16 PUD ADMIN A RESUBMIT #2

BO9.13.2021 TREE REPLACEMENT

550 E. NINE MILE ROAD

FERNDALE, MICHIGAN, 48220

PHONE 248.543.4100 FAX 248.543.4141

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SEAL

33203 BIDDESTONE LANE, FARMINGTON HILLS, MI 48334

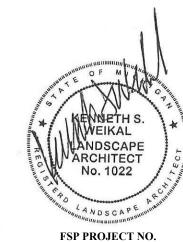
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248 477 3600 TEL

DATE

ISSUE

KEY PLAN

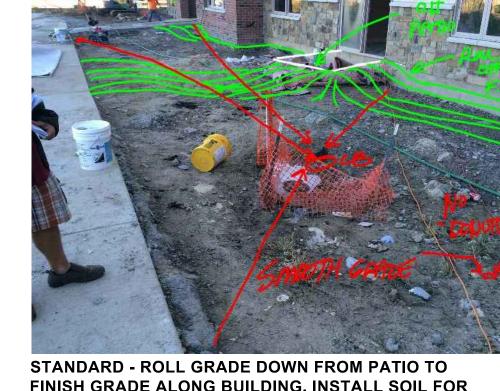


NDU15.007 DRAWING TITLE

DRAWING NUMBER

SPECIFICATIONS

PRIOR TO TOPSOIL BEING INSTALLED IN LAWN AREAS



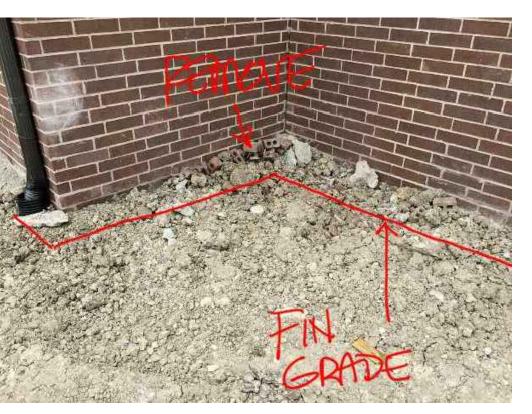
FINISH GRADE ALONG BUILDING. INSTALL SOIL FOR SMOOTH SHEET DRAINAGE ACROSS LAWN TO RIM OF **CATCH BASIN**



STANDARD - ROLL GRADE DOWN FROM PATIO TO FINISH GRADE ALONG BUILDING. INSTALL SOIL FOR SMOOTH SHEET DRAINAGE ACROSS LAWN TO SWALES. FINISH GRADE ALONG BUILDING TO BE AS SHOWN ON CIVIL PLANS.



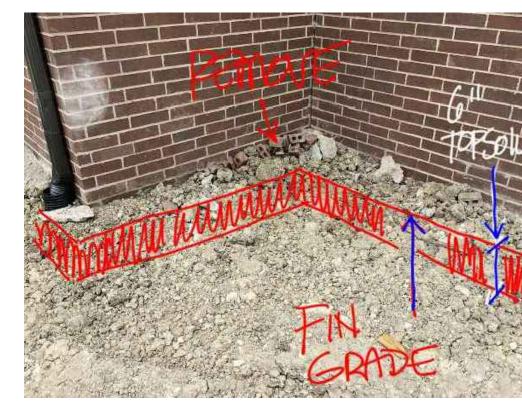
STANDARD - EXCAVATE COMPACTED CONSTRUCTION SOIL FROM PLANTING BED AREAS, TO DEPTH STATED ON PLANTING DETAILS, IN PREPARATION FOR PLANT M IX INSTALLATION.



NOT STANDARD - SOIL TOO HIGH ALONG BUILDING -**EXCAVATE COMPACTED CONSTRUCTION SOIL FROM** PLANTING BED AREAS AND LAWNS, TO CORRECT SUB-GRADE IN PREPARATION FOR 6" DEEP TOPSOIL IN LAWN AREAS AND 12" DEEP PLANT MIX IN PLANTING BEDS. FINISH GRADES NOTED ON CIVIL PLANS.



SOIL FROM PLANTING BED AREAS, TO DEPTH STATED ON PLANTING DETAILS, IN PREPARATION FOR PLANT M IX INSTALLATION.



STANDARD - FINISH GRADE TO BE AS SHOWN ON CIVIL PLANS. EXCAVATE COMPACTED CONSTRUCTION SOIL FROM PLANTING BED AREAS AND LAWNS TO SUB-GRADE, IN PREPARATION FOR 6" DEEP TOPSOIL IN LAWN AREAS AND 12" DEEP PLANT MIX IN PLANTING BEDS.



NOT STANDARD - IRRIGATION VALVE LIDS TO BE **FLUSH WITH ADJACENT LAWN AREAS**



NOT STANDARD - METAL EDGING TO BE FLUSH WITH **ADJACENT LAWN AREAS**



PRIOR TO TOPSOIL BEING INSTALLED IN LAWN AREAS

NOT STANDARD / NOT ACCEPTABLE - FLAT GRADE IN LAWN AREA, THEN DROPPING ABRUPTLY AT CATCH BASIN

NOT STANDARD - FINISH GRADE TO BE FLUSH WITH EDGE

TRIP HAZARD FOR RESIDENTS AND VISITORS

OF WALKS AT LAWN AND PLANTING BED AREAS, TO AVOID



STANDARD - FROM BUILDING OR WALK, PROVIDE A SMOOTH **EVEN 2% MINIMUM GRADE TO THE RIM OF THE DRAIN INLET** OR CATCH BASIN

NOT STANDARD - FINISH GRADE TO BE AS SHOWN ON CIVIL

PLANS



NOT STANDARD - TOO MUCH COMPACTED CONSTRUCTION SOIL IN BEDS.



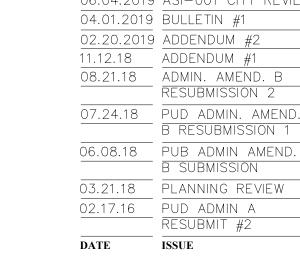
STANDARD - EXCAVATE COMPACTED CONSTRUCTION **SOIL FROM PLANTING BED AREAS IN PREPARATION** FOR 12" DEEP PLANT MIX IN PLANTING BEDS. FINISH **GRADE TO BE AS SHOWN ON CIVIL PLANS**



NOT STANDARD - TOO MUCH COMPACTED CONSTRUCTION SOIL IN BEDS.



STANDARD - EXCAVATE COMPACTED CONSTRUCTION SOIL FROM PLANTING BED AREAS IN PREPARATION FOR 12" DEEP PLANT MIX IN PLANTING BEDS. FINISH **GRADE TO BE AS SHOWN ON CIVIL PLANS**



ARCHITECTS AND PLANNERS

550 E. NINE MILE ROAD FERNDALE, MICHIGAN, 48220 PHONE 248.543.4100 FAX 248.543.4141

KEY PLAN



NDU15.007

DRAWING TITLE

LANDSCAPE

DRAWING NUMBER

L.603



09.13.2021 TREE REPLACEMENT 08.15.2021 TREE REPLACEMENT 06.04.2019 ASI-001 CITY REVIEW

LANDSCAPE STANDARDS

REPRESENTATION OF THE DESIGN INTENT AND REQUIREMENTS GIVEN IN THE PLANS

THESE IMAGES ARE A VISUAL

AND SPECIFICATIONS

FSP PROJECT NO.

STANDARDS

ARCHITECTS AND PLANNERS

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03.21.18 PLANNING REVIEW 02.17.16 PUD ADMIN A RESUBMIT #2 ISSUE

KEY PLAN



DRAWING TITLE

LANDSCAPE STANDARDS

DRAWING NUMBER





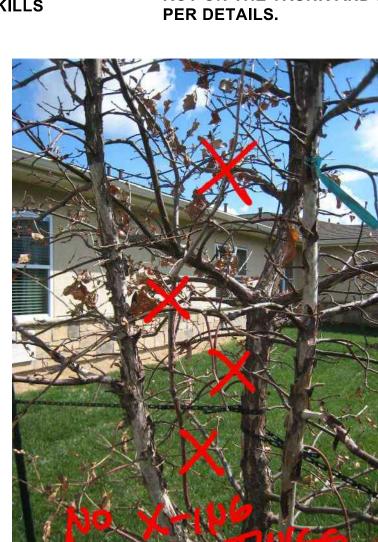
NOT STANDARD - NO MULCH VOLCANOES!!! - THIS CREATES ROT ON THE TRUNK AND KILLS THE TREE. INSTALL TREE PER DETAILS.



NOT STANDARD - NO MULCH VOLCANOES!!! - THIS CREATES ROT ON THE TRUNK AND KILLS THE TREE. INSTALL TREE PER DETAILS.



NOT STANDARD - DO NOT BURY TOPS OF SHRUBS IN MULCH!! THIS CREATES ROT ON THE TRUNK AND KILLS THE SHRUB. INSTALL PLANT PER DETAILS.



NOT STANDARD - TRIM OFF DEAD TWIGS AND NOT STANDARD - TRIM OFF CROSSING TWIGS **AND BRANCHES**

BRANCHES



STANDARD - SOIL REMOVED FROM ROOT FLARE - TREE AT PROPER GRADE, 4" ONLY MULCH, LOW SAUCER 3" **MAXIMUM HEIGHT.**



STANDARD - SOIL REMOVED FROM ROOT FLARE - TREE AT PROPER GRADE, 4" ONLY MULCH, LOW SAUCER 3" **MAXIMUM HEIGHT.**



NOT STANDARD - NO MULCH VOLCANOES!!! - THIS CREATES ROT ON THE TRUNK AND KILLS THE TREE. INSTALL TREE



STANDARD - SOIL REMOVED FROM ROOT FLARE - TREE AT PROPER GRADE, 4" ONLY MULCH, LOW SAUCER 3" **MAXIMUM HEIGHT.**



STANDARD - SOIL REMOVED FROM ROOT FLARE - TREE AT PROPER GRADE, 4" ONLY MULCH, LOW SAUCER 3" **MAXIMUM HEIGHT.**



NOT STANDARD - REMOVE TAGS AND LABELS, TRIM OFF **DEAD TWIGS AND BRANCHES**



NOT STANDARD - TRIM OFF CROSSING TWIGS **AND BRANCHES**



NOT STANDARD - CROOKED PLANTS. INSTALL TREES AND SHRUBS PLUMB, AND DO NOT BURY TRUNKS WITH EXCESSIVE MULCH



NOT STANDARD - DOWNSPOUT BOOT TOO HIGH, SHOWING **ABOVE GRADE**



STANDARD - TOP OF DOWNSPOUT BOOT FLUSH WITH FINISH

NOT TO SCALE





GRADE



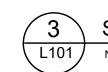
WALKS

STANDARD - INSTALL CONCRETE WALKS WITH CORRECT JOINTING PER LAYOUT PLANS

NOT STANDARD - INCORRECT JOINTING ON CONCRETE

NOT STANDARD - CONCRETE WALKS WITH INCORRECT

JOINTING THAT WILL CRACK, AND CAUSE A TRIP HAZARD



STANDARDS FOR WALKS NOT TO SCALE

LANDSCAPE STANDARDS

THESE IMAGES ARE A VISUAL
REPRESENTATION OF THE DESIGN INTENT
AND REQUIREMENTS GIVEN IN THE PLANS
AND SPECIFICATIONS

