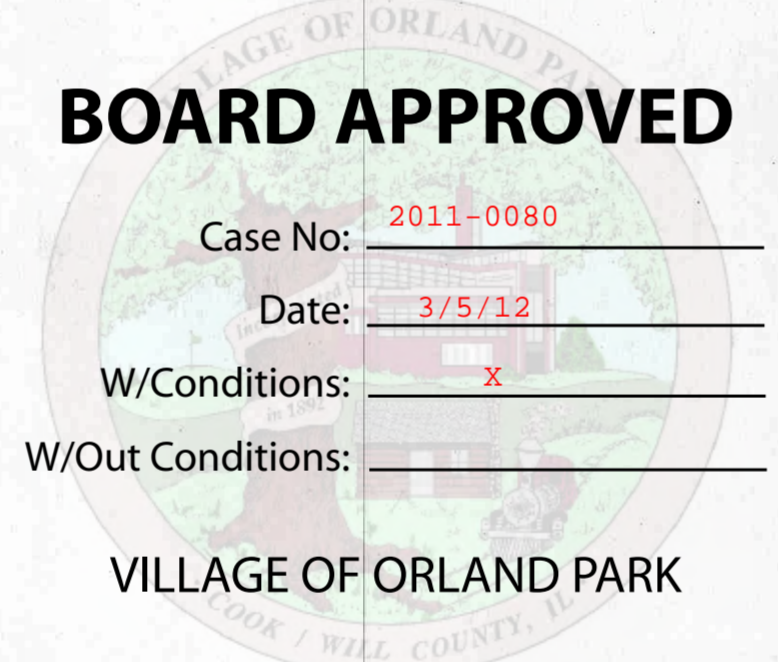
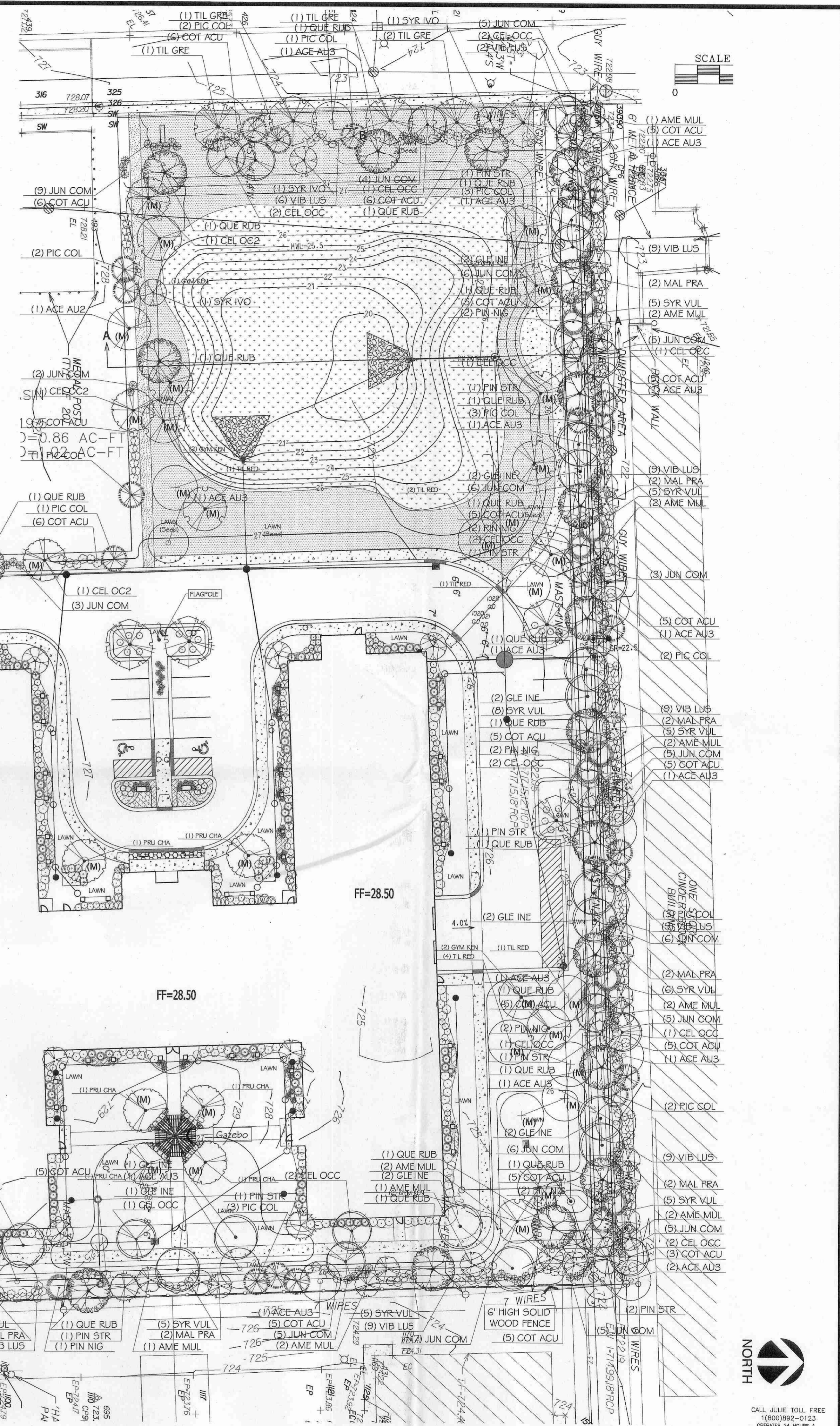


LANDSCAPE NOTES:

- PLANT QUALITIES SHOWN IN THE PLANT SCHEDULE ARE FOR CONVENIENCE ONLY. THE CONTRACTOR IS RESPONSIBLE FOR PROVIDING AND INSTALLING ALL MATERIALS SHOWN ON THE PLAN AND SHOULD NOT RELY ON THE PLANT SCHEDULE FOR DETERMINING QUALITIES.
- ALL PLANT MATERIALS SHALL BE NURSERY GROWN STOCK AND SHALL BE FREE FROM ANY DEFORMITIES, DISEASES OR INSECT DAMAGE. ANY MATERIALS WITH DAMAGED OR CROOKED/DISFIGURED LEADERS, BARK ABRASION, SUNSCALD, INSECT DAMAGE, ETC. ARE NOT ACCEPTABLE AND WILL BE REJECTED. TREES WITH MULTIPLE LEADERS WILL BE REJECTED UNLESS CALLED OUT IN THE PLANT SCHEDULE AS MULTI-STEM.
- ALL LANDSCAPE IMPROVEMENTS SHALL MEET MUNICIPALITY REQUIREMENTS AND GUIDELINES, WHICH SHALL BE VERIFIED BY MUNICIPAL AUTHORITIES.
- ALL PLANTING OPERATIONS SHALL BE COMPLETED IN ACCORDANCE WITH STANDARD HORTICULTURAL PRACTICES. THIS MAY INCLUDE, BUT NOT BE LIMITED TO, PROPER PLANTING BED AND TREE PIT PREPARATION, PLANTING MIX, PRUNING, STAKING AND GUYING, WRAPPING, SPRAYING, FERTILIZATION, PLANTING AND ADEQUATE MAINTENANCE OF MATERIALS DURING CONSTRUCTION ACTIVITIES.
- ALL PLANT MATERIALS SHALL BE INSPECTED AND APPROVED BY THE LANDSCAPE ARCHITECT PRIOR TO INSTALLATION. ANY MATERIALS INSTALLED WITHOUT APPROVAL MAY BE REJECTED.
- THE CONTRACTOR SHALL GUARANTEE PLANT MATERIALS FOR A PERIOD OF ONE YEAR FROM DATE OF ACCEPTANCE BY OWNER. THE CONTRACTOR SHALL OUTLINE PROPER MAINTENANCE PROCEDURES TO THE OWNER AT THE TIME OF ACCEPTANCE. DURING THE GUARANTEE PERIOD, DEAD OR DISEASED MATERIALS SHALL BE REPLACED AT NO COST TO THE OWNER. AT THE END OF THE GUARANTEE PERIOD THE CONTRACTOR SHALL OBTAIN FINAL ACCEPTANCE FROM THE OWNER.
- ANY EXISTING TREES TO BE RETAINED SHALL BE PROTECTED FROM SOIL COMPACTION AND OTHER DAMAGES THAT MAY OCCUR DURING CONSTRUCTION ACTIVITIES BY ERECTING FENCING AROUND SUCH MATERIALS AT A DISTANCE OF 8.5' FROM THE TRUNK.
- ALL GRASS, CLUMPS, OTHER VEGETATION, DEBRIS, STONES, ETC., SHALL BE RAKED OR OTHERWISE REMOVED FROM PLANTING AND LAWN AREAS PRIOR TO INITIATION OF INSTALLATION PROCEDURES.
- ANY AREAS TO BE LOAMED AND SEEDED WHICH HAVE NOT BEEN DISTURBED BY CONSTRUCTION ACTIVITIES SHALL RECEIVE 1" OF LOAM OVER SCRUBBED EXISTING SOILS. CARE SHOULD BE GIVEN TO NOT PLACE GREATER THAN 1" SOIL OVER EXPOSED ROOTS OF EXISTING TREES IN SUCH AREAS.
- THE CONTRACTOR SHALL VERIFY THE LOCATIONS OF ALL UNDERGROUND UTILITIES PRIOR TO INITIATING PLANTING OPERATIONS. THE CONTRACTOR SHALL REPAIR/REPLACE AND UTILITY, PAVING, CURBING, ETC., WHICH IS DAMAGED DURING PLANTING OPERATIONS.
- SIZE AND GRADING STANDARDS OF PLANT MATERIALS SHALL CONFORM TO THE LATEST EDITION OF ANSI Z60.1, AMERICAN STANDARDS FOR NURSERY STOCK, BY THE AMERICAN NURSERY & LANDSCAPE ASSOCIATION.
- REFER TO PLAT OF SURVEY FOR LEGAL DESCRIPTION, BOUNDARY DIMENSIONS AND EXISTING CONDITIONS.
- REFER TO ARCHITECTURAL PLANS FOR BUILDING SIZES AND FOOTPRINTS.
- REFER TO ENGINEERING PLANS FOR DETENTION CALCULATIONS, UTILITY LOCATIONS, TOPOGRAPHIC INFORMATION AND THE LIKE.
- ALL PLANT MATERIAL ON THIS PLANTING PLAN REPRESENTS THE INTENTION AND INTENSITY OF THE PROPOSED LANDSCAPE MATERIAL. THE EXACT SPECIES AND LOCATIONS MAY VARY IN THE FIELD DO TO MODIFICATIONS IN THE SITE IMPROVEMENTS AND THE AVAILABILITY OF PLANT MATERIAL AT THE TIME OF INSTALLATION. ANY SUCH CHANGES MUST FIRST BE APPROVED BY THE VILLAGE IN WRITING.
- ALL PLANT MATERIAL SHALL BE PLANTED WITH A MINIMUM OF SIX INCHES OF ORGANIC SOIL AND MULCHED WITH A SHREDDED BARK MATERIAL TO A MINIMUM 3" DEPTH.
- ALL BEDS SHALL BE EDGED, HAVE WEED PREEMERGENTS APPLIED AT THE RECOMMENDED RATE.
- ALL PARKWAYS AND PARKING LOT ISLANDS SHALL HAVE SOD AS A GROUND COVER, UNLESS OTHERWISE NOTED.
- ALL LAWN AREAS ON THIS PLAN SHALL BE GRADED SMOOTH AND TOPPED WITH AT LEAST 4" OF TOPSOIL. ALL LAWN AREAS TO BE ESTABLISHED USING SOD UNLESS OTHERWISE NOTED.
- THIS LANDSCAPE PLAN ASSUMES THE SITE WILL BE PREPARED WITH TOP SOIL SUITABLE FOR THE ESTABLISHMENT OF THE LANDSCAPE MATERIAL PRESENTED ON THIS PLAN. IF ADDITIONAL TOP SOIL IS REQUIRED IT IS UP TO THE LANDSCAPE CONTRACTOR ON THE PROJECT TO PROVIDE, SPREAD AND PREPARE THE SITE AS NEEDED FOR THE IMPLEMENTATION OF THIS LANDSCAPE PLAN.
- CONTRACTORS MUST VERIFY ALL QUANTITIES AND OBTAIN ALL PROPER PERMITS AND LICENSES FROM THE PROPER AUTHORITIES.
- ALL MATERIAL MUST MEET INDUSTRY STANDARDS AND THE LANDSCAPE ARCHITECT HAS THE RIGHT TO REFUSE ANY POOR MATERIAL OR WORKSMANSHIP.
- LANDSCAPE ARCHITECT IS NOT RESPONSIBLE FOR UNSEEN SITE CONDITIONS.
- ALL PLANTINGS SHALL BE SPACED EQUAL DISTANT, BACK FILLED WITH AMENDED SOIL IN A HOLE TWICE THE ROOTBALL DIAMETER, WATERED, FERTILIZED, PRUNED, AND HAVE ALL TAGS AND ROPES REMOVED.
- ALL BEDS TO BE BERMED 1 1/2" TO 2 1/4" ABOVE GRADE AND MEET DRAINAGE REQUIREMENTS.
- LAWN AND BED AREAS SHALL BE ROTOTILLED, RAKED OF CLUMPS AND DEBRIS.
- CONTRACTOR SELECTED FOR NATIVE PLANT INSTALLATION SHOULD HAVE A MINIMUM OF FIVE YEARS EXPERIENCE IN THE FIELD. SUPERVISOR SHOULD BE PRESENT ON SITE DURING LANDSCAPE WORK FOR NATIVE AREAS THAT CAN IDENTIFY NON-NATIVE AND NATIVE PLANTS BY GENUS AND SPECIES.
- ALL SEED SUPPLIED TO THE SITE SHOULD BE TAGGED WITH SEED SPECIES, WEIGHTS AND DOCUMENTATION OF PLS TESTING. SEED MUST MEET A MINIMUM 75% PLS PER SPECIES AS VERIFIED BY INDEPENDENT LABORATORY TEST RESULTS NO MORE THAN A YEAR OLD. FOR PRAIRIE CORN GRASS (SPARTINA PECTINATA) TEST RESULTS SHALL BE NO MORE THAN 6 MONTHS OLD.
- FERTILIZER SHALL NOT BE USED IN AREAS OF NATIVE LANDSCAPING.
- NATIVE PLANTING AREAS WILL NOT BE IRRIGATED. PERIODIC WATERING MAY BE NEEDED DURING THE FIRST YEAR ESTABLISHMENT PERIOD.
- ALL NATIVE SEED AND PLANT MATERIAL SHALL BE OBTAINED FROM SOURCES WITHIN A 250 MILE RADIUS FROM THE SUBJECT SITE TO MAINTAIN LOCAL ECOTYPES.
- BROADCASTING OR HYDRAULIC SEEDING WILL BE USED FOR SEEDING OF NATIVE PLANTING AREAS. EROSION CONTROL BLANKET WILL BE USED ON STEEP SLOPES WITH A RATIO OF 4:1. EROSION CONTROL BLANKET SHALL BE NAG SC150 OR APPROVED EQUAL. WHEN BROADCAST SEEDING METHODS ARE USED THE GRASSES SHALL BE BROADCAST SEPARATELY FROM THE FLOWERS.
- WHEN BROADCAST SEED APPLICATION METHODS ARE USED SEED IS TO BE APPLIED AT DOUBLE THE INDICATED RATES (EXCLUDING TEMPORARY MATRIX SPECIES).
- IF AT THE TIME OF NATIVE AREA SEEDING WATER LEVELS CANNOT BE CONTROLLED, EMERGENT PLUGS WILL BE INSTALLED AT A RATE OF 3,500 TO 4,000 PER ACRE (BASED ON THE AREA HAVING UP TO ONE FOOT OF INUNDATION AT THE NWL).
- NATIVE AREA SEEDING SHALL OCCUR ANY TIME BETWEEN OCTOBER 15TH AND JUNE 15TH PROVIDED SITE CONDITIONS AFFORD GOOD SOIL SEED CONTACT AND WORKABLE SOILS. SEEDING SHOULD OCCUR WHEN SOIL IS MOIST TO DRY-DAMP AND, IDEALLY, TIMED SUCH THAT RAINFALL OCCURS WITHIN 48 HOURS OF SEEDING. IF EARTHWORK IS COMPLETED IN LATE SPRING OR SUMMER THE TEMPORARY MATRIX SEED WILL BE INSTALLED; PERMANENT MATRIX SPECIES MAY BE INSTALLED CONCURRENTLY IF REGULAR WATERING IS PROVIDED, OR SEPARATELY AT THE FIRST APPROPRIATE OPPORTUNITY.
- TREES SYMBOLS SHOWN WITH A (M) INDICATE REPLACEMENTS TREES FOR THE EXISTING TREES TO BE REMOVED.

PLANT SCHEDULE OVERALL

CANOPY TREES	BOTANICAL NAME / COMMON NAME	COND	SIZE	QTY
ACE AU2	ACER FREEMANNI / AUTUMN BLAZE / AUTUMN BLAZE MAPLE	B 4 B	4" Cal	4
ACE AUS	ACER RUBRUM / AUTUMN BLAZE / AUTUMN BLAZE RED MAPLE	B 4 B	2.5" Cal	21
CEL OCC	CELTIS OCCIDENTALIS / COMMON HACKBERRY	B 4 B	2.5" Cal	26
CEL OC2	CELTIS OCCIDENTALIS / COMMON HACKBERRY	B 4 B	4" Cal	6
GLE INE	GLIEDISIA TRICANTHOS NERANS / SKYCOLE / TM / SKYLINE THORNLESS HONEY LOCUST	B 4 B	2.5" Cal	15
GYM KEN	GYMNOCLADUS DIOICA / KENTUCKY COFFEE TREE	B 4 B	4" Cal	13
PRU CHA	PRUNUS CALLERIANA / CHANTICLEER / CHANTICLEER PEAR	B 4 B	4" Cal	6
QUE RUB	QUERCUS RUBRA / RED OAK	B 4 B	2.5" Cal	28
TIL RED	TILIA AMERICANA / REDMOND / REDMOND AMERICAN LINDEN	B 4 B	4" Cal	9
TIL GRE	TILIA CORDATA / GREENSPICE / GREENSPICE LITTLELEAF LINDEN	B 4 B	2.5" Cal	13
EVERGREEN TREES	BOTANICAL NAME / COMMON NAME	COND	SIZE	QTY
PIC COL	PICEA PUNGENS / COLORADO GREEN / BLUE SPRUCE	B 4 B	6" - 8" Ht.	30
FIN NIG	FINUS NIGRA / AUSTRIAN BLACK PINE	B 4 B	6" - 8" Ht.	15
FIN STR	FINUS STROBUS / WHITE PINE	B 4 B	6" - 8" Ht.	15
UNDERSTORY TREES	BOTANICAL NAME / COMMON NAME	COND	SIZE	QTY
AME MUL	AMELANCHIER CANADENSIS / SHADBLOW SERVICEBERRY MULTITRUNK	B 4 B	6" - 8" Ht.	19
MAL PRA	MALUS X 'PRAIRIFIRE' / PRAIRIFIRE GRAB APPLE	B 4 B	6" - 8" Ht.	16
SYR IVO	SYRINGA RETICULATA / IVORY SILK / IVORY SILK JAPANESE TREE LILAC	B 4 B	6" - 8" Ht.	15
DECIDUOUS SHRUBS	BOTANICAL NAME / COMMON NAME	COND	SIZE	QTY
COR ISA	CORNUS SERICEA / ISANT / ISANT / REDOSISER DOGWOOD	B 4 B	36" Ht.	35
COT ACU	COTONEASTER ACUTIFOLIUS / PERSING COTONEASTER	B 4 B	36" Ht.	146
EUNY ALA	EUNYMIUS ALATUS / COMPACTUS / COMPACT BURNING BUSH	B 4 B	36" Ht.	59
HYD ANG	HYDRANGEA ARBORESCENS / ANNABELLE / ANNABELLE SMOOTH HYDRANGEA	B 4 B	36" Ht.	43
RIBS ALP	RIBES AROMATICUM / GREEN MOUND / GREEN MOUND ALPINE CURRANT	B 4 B	24" Ht.	42
RIBS ALP	RIBES ALPINUM / GREEN MOUND / GREEN MOUND ALPINE CURRANT	B 4 B	24" Ht.	42
ROSA X	ROSA X 'FLOWER CARPET PINK' / ROSE	B 4 B	24" Spread	46
SYR MIDY	SYRINGA MIDYI / 'PALEONY' / DWARF KOREAN LILAC	B 4 B	30" Ht.	43
SYR VUL	SYRINGA VULGARIS / COMMON LILAC	B 4 B	36" Ht.	49
VIB LUS	VIBURNUM DENTATUM / CHICAGO LUSTER / CHICAGO LUSTER ARROWWOOD	B 4 B	36" Ht.	115
WEIG FLOR	WEIGELA FLORIDA / WINE TM / WEGELA	B 4 B	30" Ht.	35
EVERGREEN SHRUBS	BOTANICAL NAME / COMMON NAME	COND	SIZE	QTY
JUN COM	JUNIPERUS CHINENSIS / PRTZERIANA COMPACTA / COMPACTA PRITZER	B 4 B	24" Spread	134
JUN BRO	JUNIPERUS SABINA / BROADMOOR / BROADMOOR JUNIPER	B 4 B	24" Spread	15
TAX DE4	TAXUS MEDIA / DENSE YEW	B 4 B	24" Ht.	87
TRU OCC	TRILIAC OCCIDENTALIS / TECHNY / TECHNY ARBORVITAE	B 4 B	36" Ht.	10
GRASSES	BOTANICAL NAME / COMMON NAME	COND	SIZE	QTY
CAL KAR	CALAMAGROSTIS X ACUTILORA / KARL FOSTERST / FEATHER REED GRASS	B 4 B	2' - 3' Ht.	48
MIS GRA	MISCANTHUS SINENSIS / GRACILIMUS / MAIDEN GRASS	B 4 B	3' - 4' Ht.	113
PEN FAL	PENNISETUM ALOPECUROIDES / HAMELN / HAMELN DWARF FOUNTAIN GRASS	B 4 B	1' - 2' Ht.	24
GROUND COVERS	BOTANICAL NAME / COMMON NAME	COND	SIZE	QTY
EUNY ALA	EUNYMIUS ALATUS / COMPACTUS / COMPACT BURNING BUSH	B 4 B	36" Ht.	59
HEM OR2	HEMORICALLIS X 'STELLA DE ORO' / STELLA DE ORO DWARFLY	B 4 B	12" - 18" HT.	169
NEP WA2	NEPETA X FASSENI / WALKERS LOW / WALKERS LOW CATMINT	B 4 B	6" - 12" HT.	182



BOARD APPROVED

Case No: 2011-0080

Date: 3/5/12

W/Conditions: X

W/Out Conditions:

VILLAGE OF ORLAND PARK

RECEIVED

FEB 27 2012

Scale: 1" = 30'

Prepared For: Ryan

Location: Orland Park, IL

Date: 10-17-11

SHEET

Overall Landscape Plan

Thomas Place

Orland Park, Illinois

Emerald

Site Services, LLC

8223 W. Lincoln Highway
Frankfort, Illinois 60423
P: (815) 469-7400 F: (815) 469-7413

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PLANT SCHEDULE NORTH BUFFERYARD (525 L.F.)

Table with columns: BOTANICAL NAME / COMMON NAME, COND, SIZE, QTY, REQUIRED, PROVIDED. Lists various tree and shrub species with quantities.

PLANT SCHEDULE EAST BUFFERYARD WITH 6' HIGH SOLID WOOD FENCE (398 L.F. ALONG BLDG.)

Table with columns: BOTANICAL NAME / COMMON NAME, COND, SIZE, QTY, REQUIRED, PROVIDED. Lists various tree and shrub species with quantities.

PLANT SCHEDULE EAST BUFFERYARD (400 L.F. ALONG ENTRY DRIVE)

Table with columns: BOTANICAL NAME / COMMON NAME, COND, SIZE, QTY, REQUIRED, PROVIDED. Lists various tree and shrub species with quantities.

PLANT SCHEDULE SOUTH BUFFERYARD 1 (193 L.F. INTERIOR WEST)

Table with columns: BOTANICAL NAME / COMMON NAME, COND, SIZE, QTY, REQUIRED, PROVIDED. Lists various tree and shrub species with quantities.

PLANT SCHEDULE SOUTH BUFFERYARD 2 (245 L.F. INTERIOR EAST)

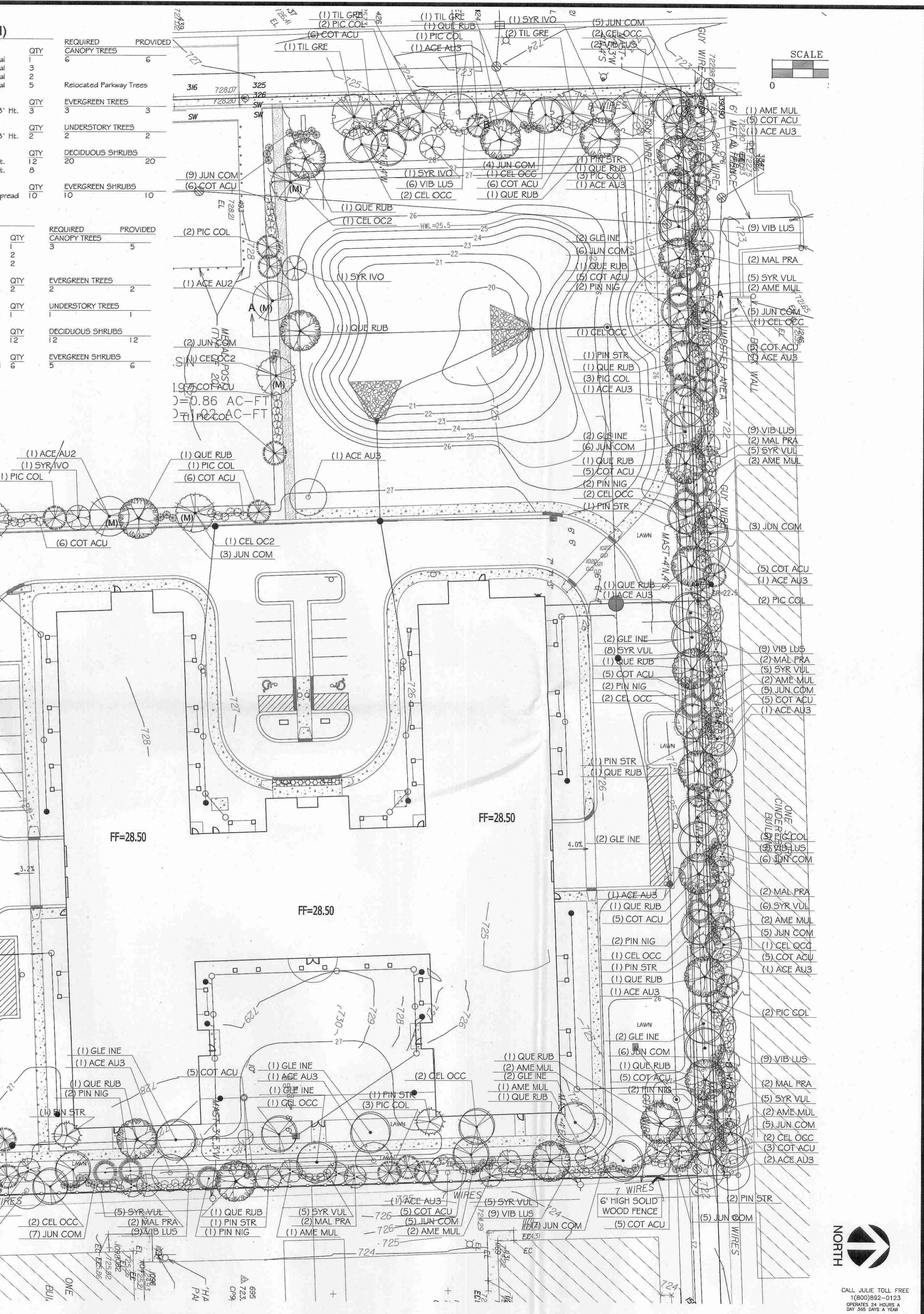
Table with columns: BOTANICAL NAME / COMMON NAME, COND, SIZE, QTY, REQUIRED, PROVIDED. Lists various tree and shrub species with quantities.

PLANT SCHEDULE WEST BUFFERYARD 1 (216 L.F. ALONG HARLEM)

Table with columns: BOTANICAL NAME / COMMON NAME, COND, SIZE, QTY, REQUIRED, PROVIDED. Lists various tree and shrub species with quantities.

PLANT SCHEDULE WEST BUFFERYARD 2 (182 L.F. INTERIOR)

Table with columns: BOTANICAL NAME / COMMON NAME, COND, SIZE, QTY, REQUIRED, PROVIDED. Lists various tree and shrub species with quantities.



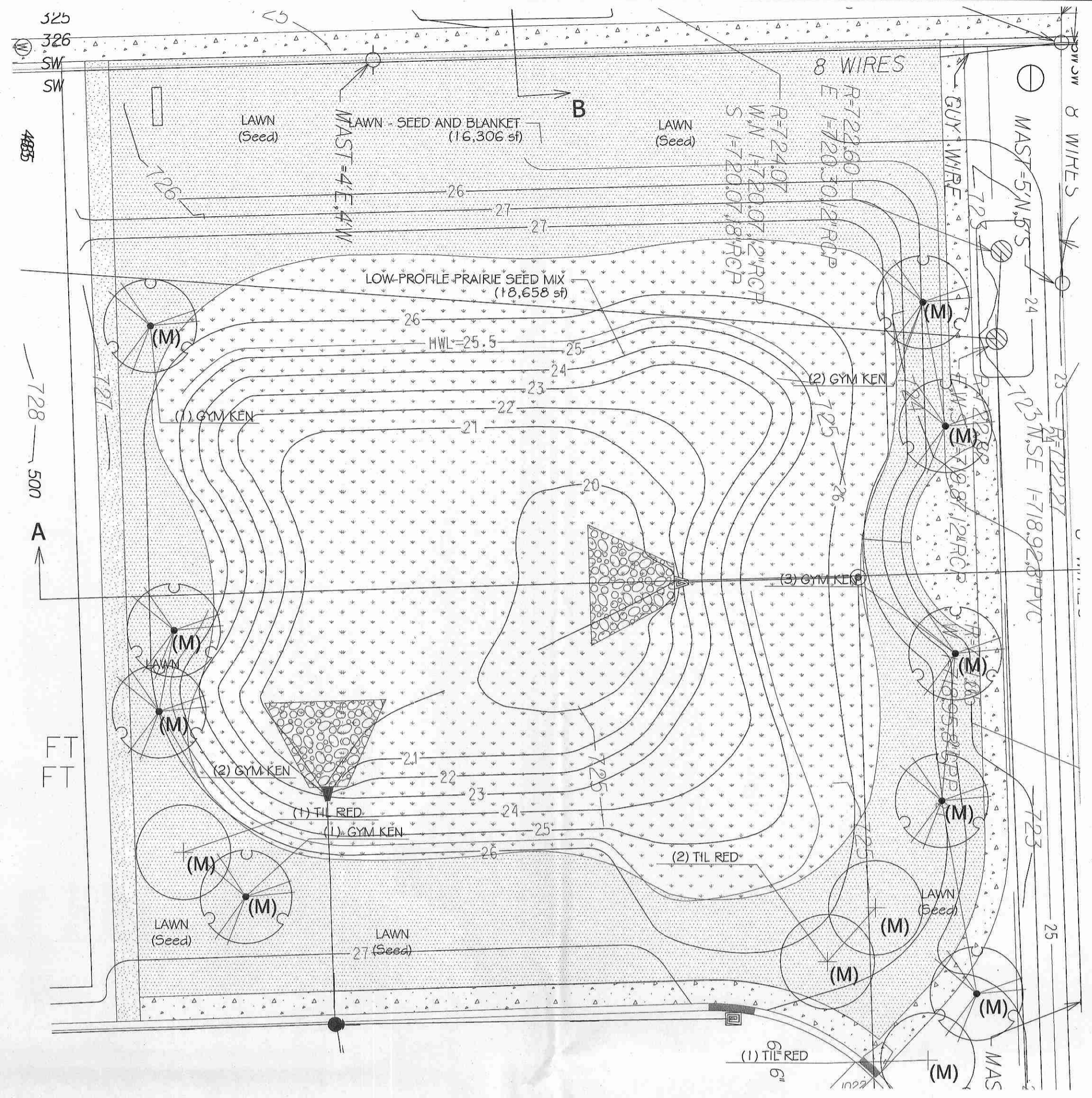
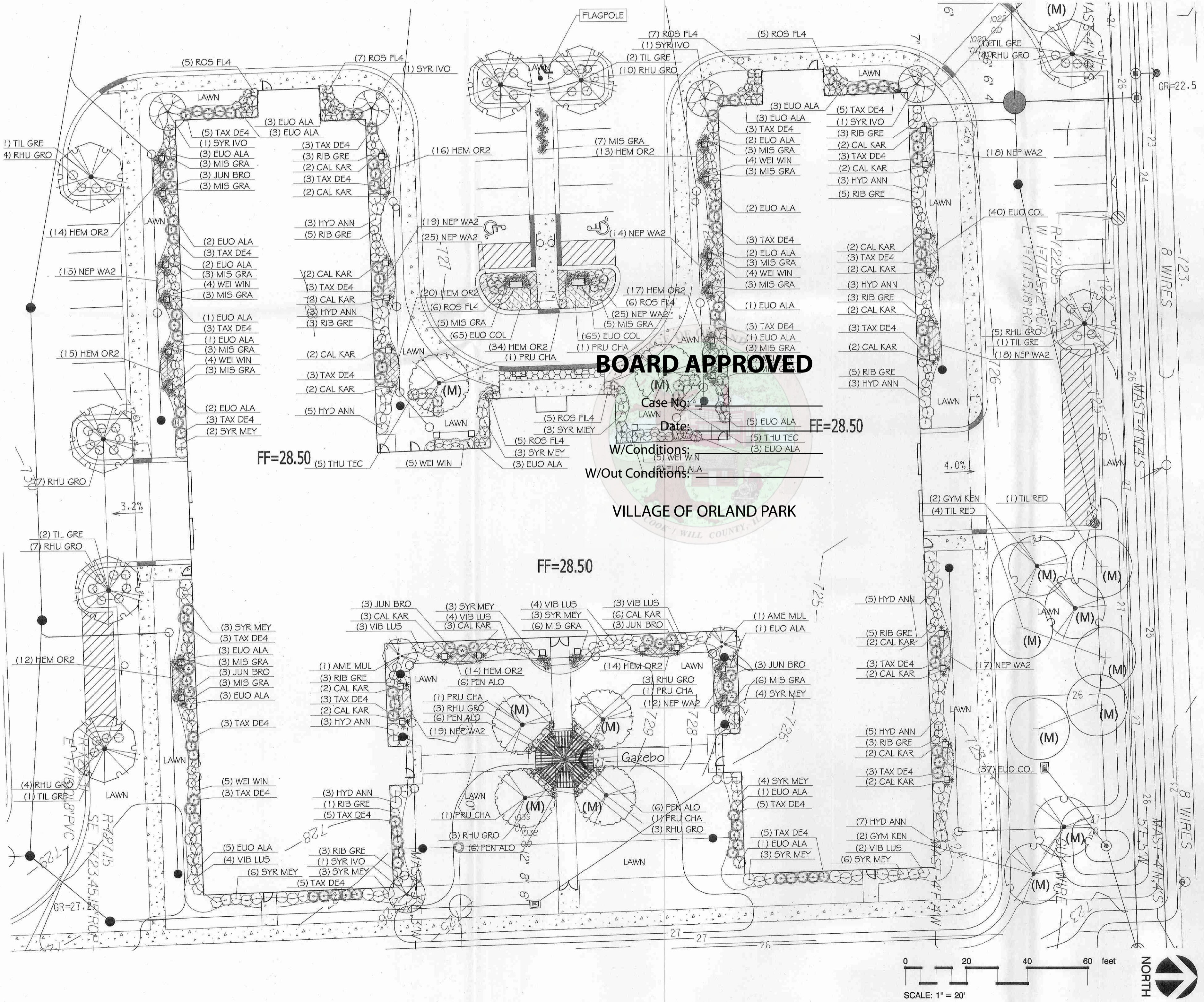
BOARD APPROVED stamp from the Village of Orland Park. Includes fields for Case No., Date, W/Conditions, and W/Out Conditions.

Project information block containing the title 'Bufferyard Landscape Plan', location 'Thomas Place Orland Park, Illinois', the Emerald Site Services, LLC logo, and contact information including address and phone number.

Technical notes and a warning symbol. The notes specify a call toll-free number and a warning to call before digging.

PLANT SCHEDULE INTERIOR LANDSCAPE

CANOPY TREES	BOTANICAL NAME / COMMON NAME	COND	SIZE	QTY
PRU CHA	PYRUS CALLERIANA 'CHANTICLEER' / CHANTICLEER PEAR	B # B	4" Cal	6
TIL GRE	TILIA CORDATA 'GREENSPIRE' / GREENSPIRE LITTLELEAF LINDEN	B # B	2.5" Cal	8
UNDERSTORY TREES	BOTANICAL NAME / COMMON NAME	COND	SIZE	QTY
AME MUL	AMELANCHIER CANADENSIS / SHADBLOW SERVICEBERRY MULTITRUNK	B # B	6" - 8" Ht.	2
SYR IVO	SYRINGA RETICULATA 'IVORY SILK' / IVORY SILK JAPANESE TREE LILAC	B # B	6" - 8" Ht.	5
DECIDUOUS SHRUBS	BOTANICAL NAME / COMMON NAME	CONT	SIZE	QTY
EUO ALA	EUONYMUS ALATUS 'COMPACTUS' / COMPACT BURNING BUSH	B # B	36" Ht.	59
HYD ANN	HYDRANGEA ARBORESCENS 'ANNABELLE' / ANNABELLE SMOOTH HYDRANGEA	B # B	36" Ht.	43
RHU GRO	RHUS AROMATICA 'GRO-LOW' / GRO-LOW FRAGRANT SUMAC	5 gal	24" Spread	53
RIB GRE	RIBES ALPINUM 'GREEN MOUND' / GREEN MOUND ALPINE CURRANT	5 gal	24" Ht.	42
ROS FL4	ROSA X 'FLOWER CARPET PINK' / ROSE	5 gal	24" Spread	46
SYR MEY	SYRINGA MEYERI 'PALIBIN' / DWARF KOREAN LILAC	B # B	30" Ht.	43
VIB LUS	VIBURNUM DENTATUM 'CHICAGO LUSTER' / CHICAGO LUSTER ARROWWOOD	B # B	36" Ht.	20
WEI WIN	WEIGELA FLORIDA 'WINE TM' / WEIGELA	B # B	30" Ht.	35
EVERGREEN SHRUBS	BOTANICAL NAME / COMMON NAME	CONT	SIZE	QTY
JUN BRO	JUNIPERUS SABINA 'BROADMOOR' / BROADMOOR JUNIPER	B # B	24" Spread	15
TAX DE4	TAXUS X MEDIA / DENSE YEW	B # B	24" Ht.	87
THU TEC	THUJA OCCIDENTALIS 'TECHNY' / TECHNY ARBORVITAE	B # B	36" Ht.	10
GRASSES	BOTANICAL NAME / COMMON NAME	CONT	SIZE	QTY
CAL KAR	CALAMAGROSTIS X ACUTIFLORA 'KARL FOERSTER' / FEATHER REED GRASS	1 gal	2" - 3" Ht.	48
MIS GRA	MISCANTHUS SINENSIS 'GRACILLIMUS' / MAIDEN GRASS	1 gal	3" - 4" Ht.	71
PEN ALO	PENNISETUM ALOPECUROIDES 'HAMELN' / HAMELN DWARF FOUNTAIN GRASS	1 gal	1" - 2" Ht.	24
GROUND COVERS	BOTANICAL NAME / COMMON NAME	CONT	SIZE	QTY
EUO COL	EUONYMUS FORTUNEI 'COLORATA' / PURPLE-LEAF WINTER CREEPER	3" POT @ 12" OC	6" - 12" HT.	207
HEM OR2	HEMEROCALLIS X 'STELLA DE ORO' / STELLA DE ORO DAYLILY	QUART @ 18" OC	12" - 18" HT.	169
NEP WA2	NEPETA X FASSENII 'WALKERS LOW' / WALKERS LOW CATMINT	QUART @ 18" OC	6" - 12" HT.	182



TREE SCHEDULE DETENTION AREA

CANOPY TREES	BOTANICAL NAME / COMMON NAME	COND	SIZE	QTY
GYM KEN	GYMNOCLADUS DIOICA / KENTUCKY COFFEE TREE	B # B	4" Cal	9
TIL RED	TILIA AMERICANA 'REDMOND' / REDMOND AMERICAN LINDEN	B # B	4" Cal	4

SEEDING SCHEDULE DETENTION AREA

PERMANENT MATRIX	LOW-PROFILE PRAIRIE SEED MIX	18,658 SF
BOTANICAL (COMMON) NAME : LBS./AC.		
AGROSTIS ALBA PALUSTRIS (CREEPING BENT GRASS) : 0.500#/A		
ANDROPOGON SCOPARIUS (LITTLE BLUE STEM) : 4.000#/A		
BOUTELOUA CURTIPENDULA (SIDE OATS GRAMA) : 1.750#/A		
CAREX VULPINOIDEA (BROWN FOX SEDGE) : 0.250#/A		
SORGHASTRUM NUTANS (INDIAN GRASS) : 0.054#/A		
TEMPORARY MATRIX		
AVENA SATIVA (SEED OATS) : 32.000#/A		
ELYMUS VIRGINICUS (VIRGINIA WILD RYE) : 1.000#/A		
LOLIUM MULTIFLORUM (ANNUAL RYE) : 5.000#/A		
FORBES		
AMORPHIA CANESCENS (LEAD PLANT) : 1.125#/A		
ASTER LAEVIS (SMOOTH BLUE ASTER) : 0.016#/A		
ASTER NOVAE ANGLIAE (NEW ENGLAND ASTER) : 0.031#/A		
BAPTISIA LEUCANTHA (WHITE WILD INDIGO) : 0.078#/A		
CASSIA PASCULOSA (PARTRIDGE PEAS) : 0.125#/A		
CEANOTHUS AMERICANUS (NEW JERSEY TEA) : 0.031#/A		
COREOPSIS PAFMATA (PRAIRIE COREOPSIS) : 0.031#/A		
DODECATEON MEADIA (SHOOTING STAR) : 0.016#/A		
ECHINACEA PALIDA (PALE PURPLE CONEFLOWER) : 0.261#/A		
ERYNGIUM YUCCIFOLIUM (RATTLESNAKE MASTER) : 0.188#/A		
LESPEDEZA CAPITATA (ROUND-HEAD BUSH CLOVER) : 0.125#/A		
LIATRIS ASPERA (ROUGH BLAZING STAR) : 0.125#/A		
LIATRIS PYCNOSTACHYA (PRAIRIE BLAZING STAR) : 0.188#/A		
LUPINUS PERENNIS (WILD LUPINES) : 0.219#/A		
MONARDA FISTULOSA (PRAIRIE BERGAMOT) : 0.031#/A		
PARTHENIUM INTEGRIFOLIUM (WILD QUININE) : 0.016#/A		
PETALOSTEMUM CANDIDUM (WHITE PRAIRIE CLOVER) : 0.125#/A		
PETALOSTEMUM PURPUREUM (PURPLE PRAIRIE CLOVER) : 0.156#/A		
PHYSTOSTEGIA VIRGINIANA (FALSE DRAGONHEAD) : 0.094#/A		
RATIBIDA PINKATA (YELLOW CONEFLOWER) : 0.125#/A		
RUIDECKIA HIRTA (BLACK-EYED SUSAN) : 0.063#/A		
SOLIDAGO NEMORALIS (OLD-FIELD GOLDENROD) : 0.006#/A		
SOLIDAGO RIGIDA (RIGID GOLDENROD) : 0.125#/A		
VERBENA STRICTA (HOARY VERVAIN) : 0.125#/A		
VERNICASTRUM VIRGINICUM (CULVER'S ROOT) : 0.006#/A		
VERONIA FASCICULATA (IRONWEED) : 0.188#/A		
TOTAL LBS. PER ACRE : 49.363#/A		

LAWN - SEED AND BLANKET 16,306 SF

Interior Lot Landscape Plan
Thomas Place
Orland Park, Illinois

Emerald
 Site Services, LLC
 8223 W. Lincoln Highway
 Frankfort, Illinois 60423
 P: (815) 469-7400 F: (815) 469-7413

SCALE: 1" = 20'
 PREPARED FOR: Ryan
 LOCATION: Orland Park, IL
 DATE: 10-17-11

COMPUTER NAME: Lplan
 JOB NUMBER:

REVISION: Landscape Plan
 S.S.G. 02-08-2012
 S.S.G. 02-22-2012

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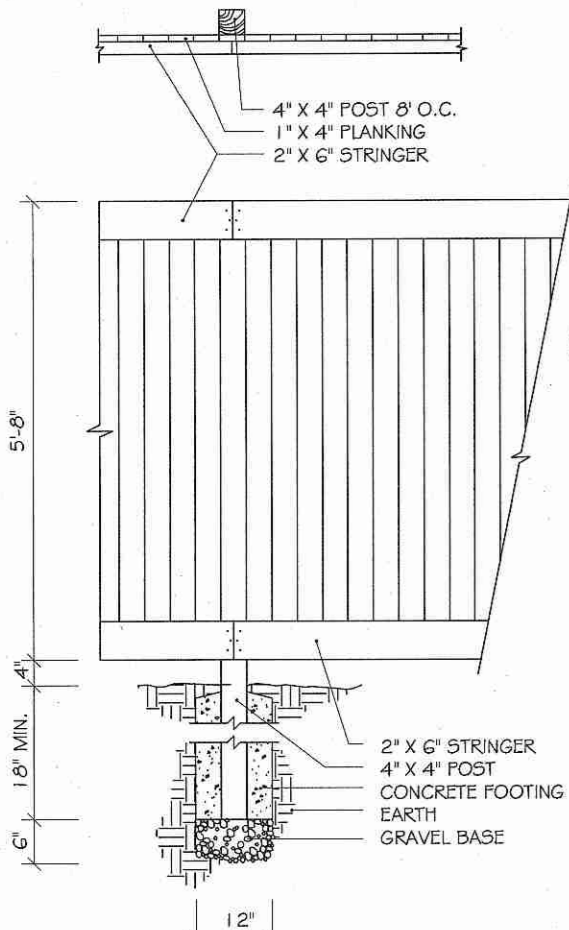
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MITIGATION TREE SCHEDULE

CANOPY TREES	BOTANICAL NAME / COMMON NAME	COND	SIZE	QTY
ACE AU2	ACER FREEMANII "AUTUMN BLAZE" / AUTUMN BLAZE MAPLE	B # B	4" Cal	4
CEL OC2	CELTIS OCCIDENTALIS / COMMON HACKBERRY	B # B	4" Cal	6
GYM KEN	GYMNOCLADUS DIOICA / KENTUCKY COFFEE TREE	B # B	4" Cal	13
FRU CHU	PYRUS CALLERYANA 'CHANTICLEER' / CHANTICLEER PEAR	B # B	4" Cal	6
TIL RED	TILIA AMERICANA 'REDMOND' / REDMOND AMERICAN LINDEN	B # B	4" Cal	9

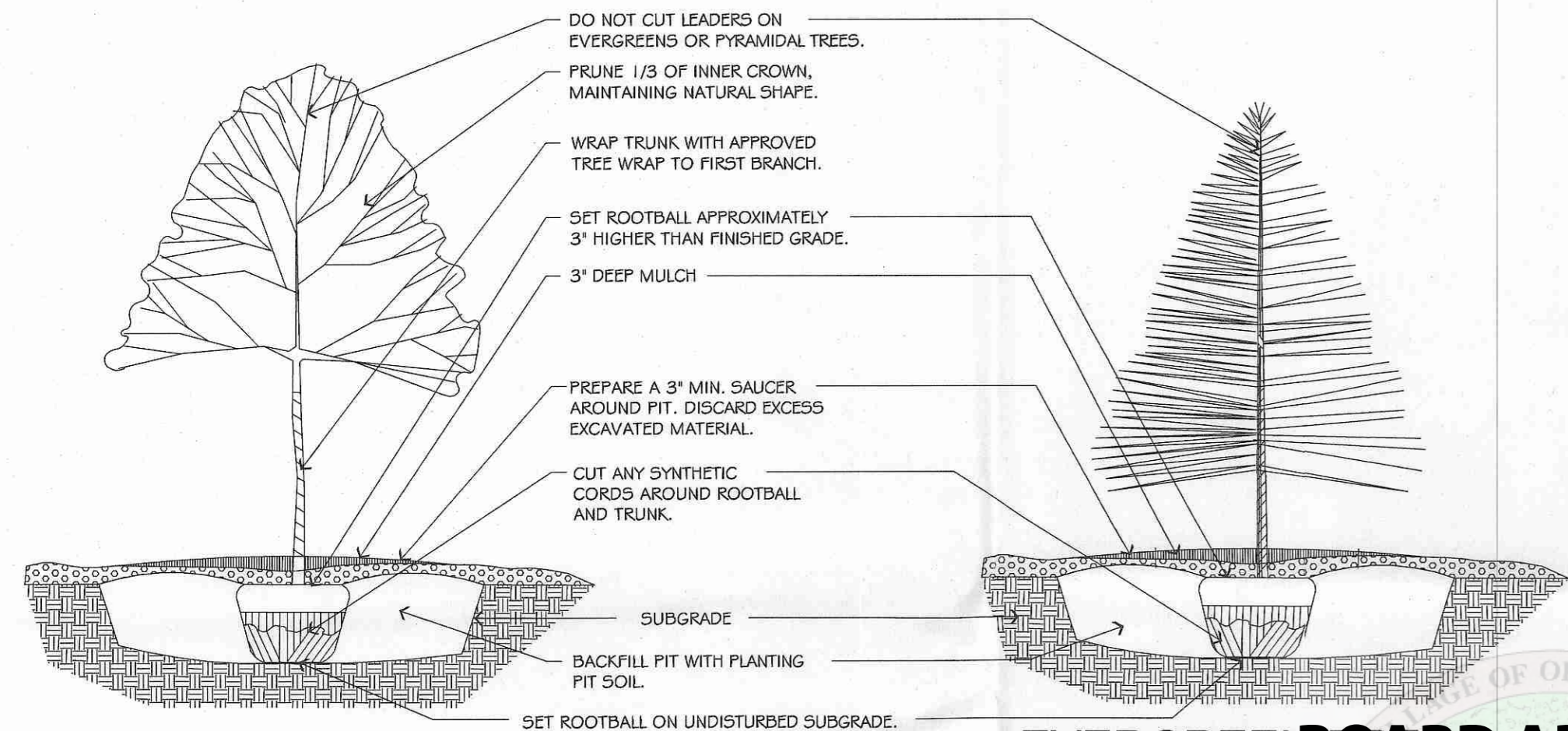
NOTE: THIS PLAN CALLS FOR THE REMOVAL OF 32 TREE ALL BUT ONE ARE OF AN UNDESIRABLE SPECIES. PER ORDINANCE THIS PLAN INDICATES THE REPLACEMENT OF THOSE TREES WITH 38 4" CALIPER TREES. MITIGATION TREES ARE SHOWN IN THIS PLAN WITH AN (M). REFER TO THE TREE INVENTORY EXHIBIT PREPARED BY SPACECO, INC. FOR THE SIZE, SPECIES, LOCATION AND CONDITION OF THE EXISTING TREES ON THE SITE.

- SHADED TREE SYMBOL INDICATES EXISTING TREE TO BE REMOVED.
- TREE SYMBOL SHOWN WITH AN (M) INDICATES MITIGATION TREE TO REPLACE EXISTING TREES TO BE REMOVED.



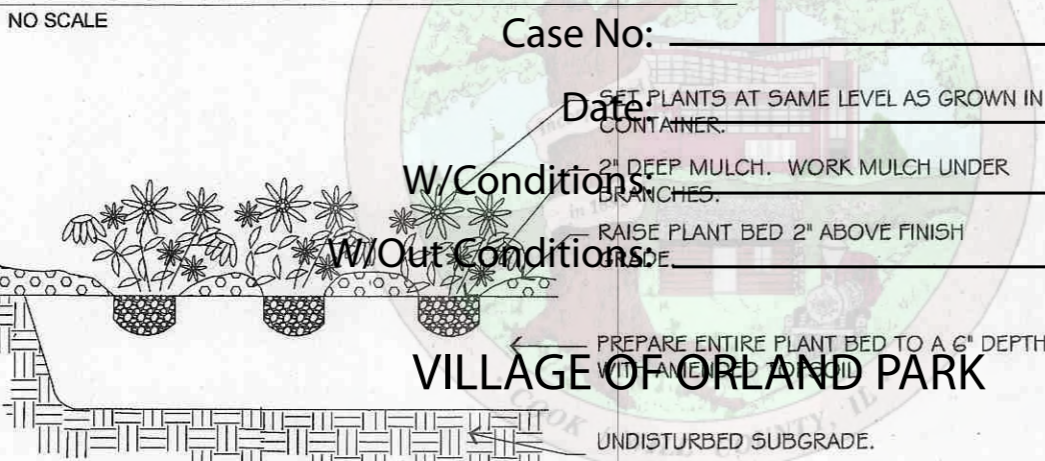
NOTES:
1. THIS DRAWING IS FOR INFORMATION PURPOSES ONLY AND NOT FOR CONSTRUCTION.
2. DO NOT SCALE DRAWINGS.

WOOD FENCE DETAIL
NO SCALE



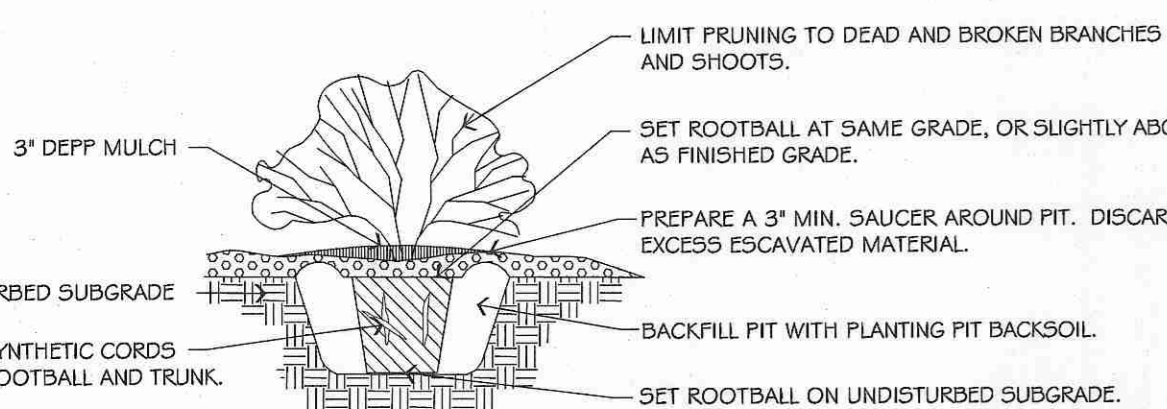
TREE PLANTING DETAIL
NO SCALE

EVERGREEN BOARD APPROVED PLANTING DETAIL
NO SCALE

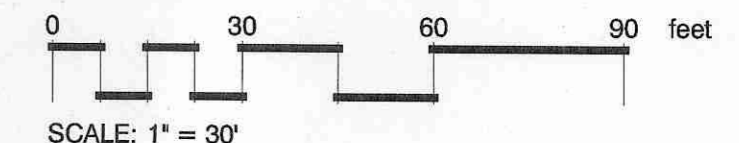
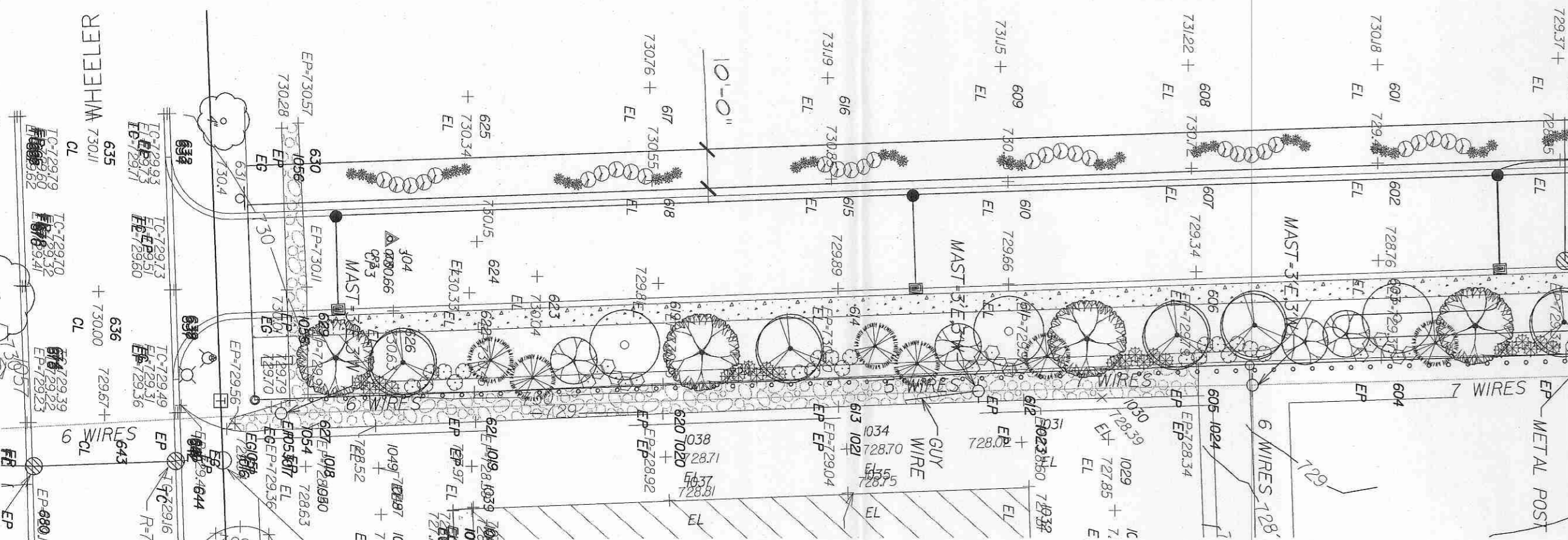
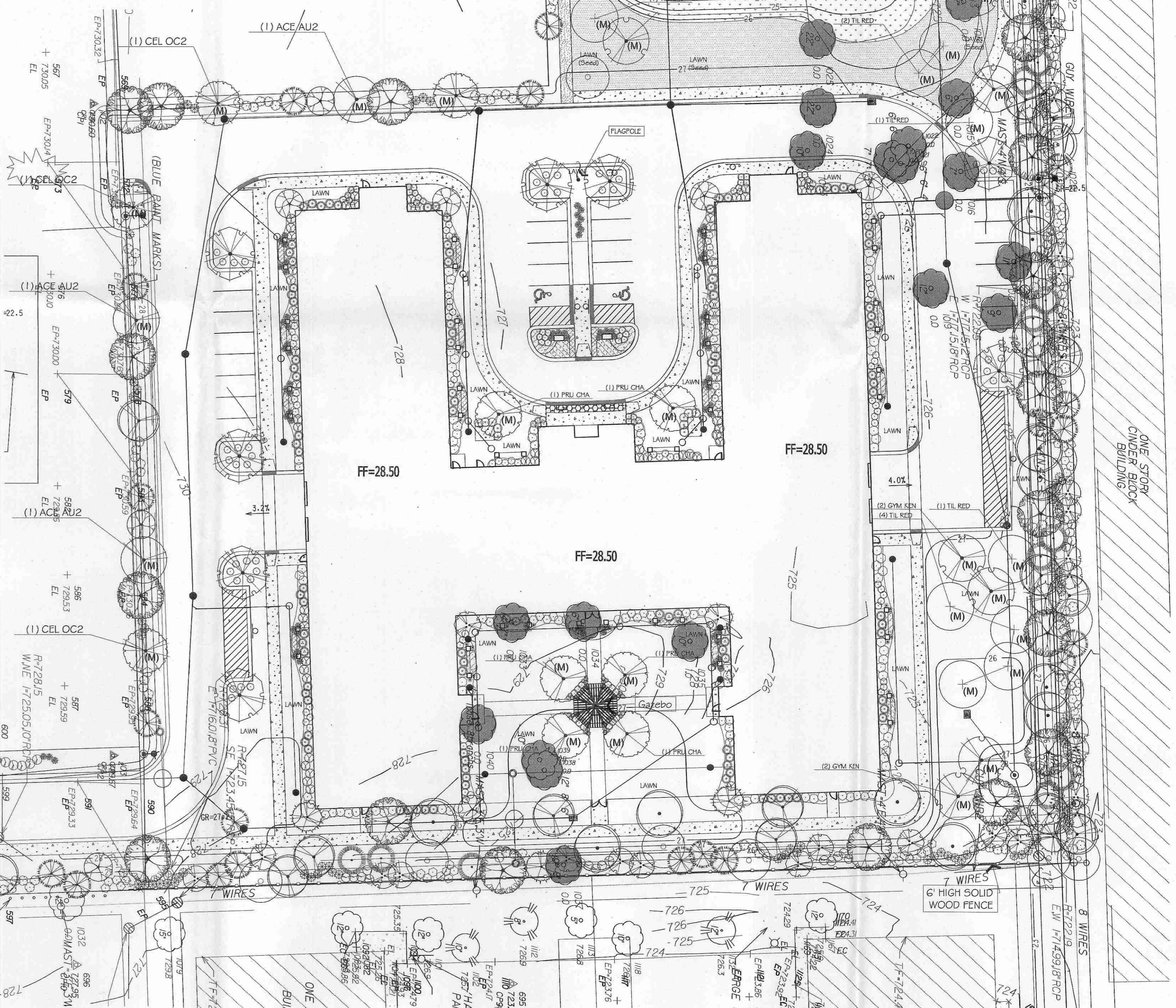
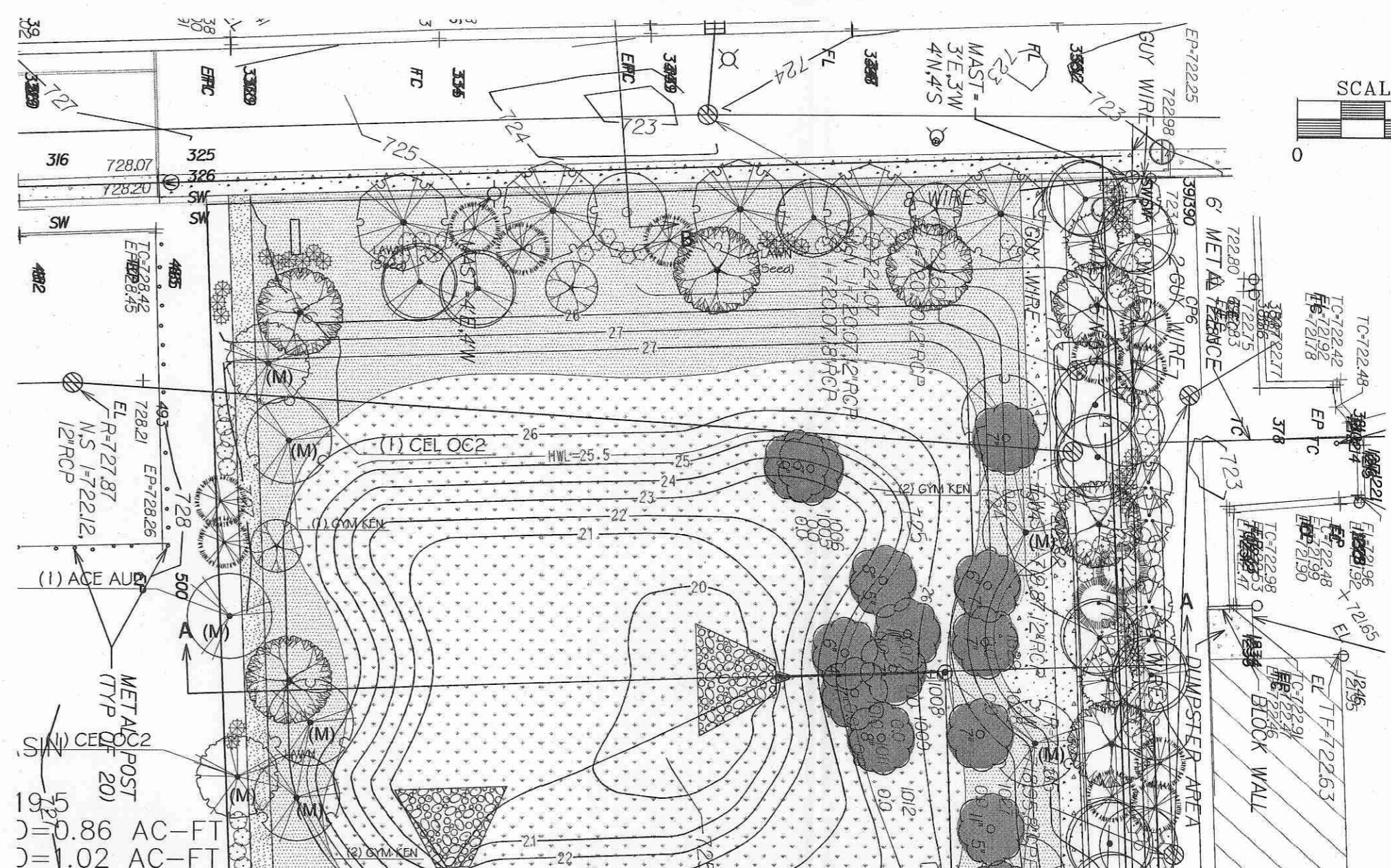


ANNUAL, PERENNIAL, AND GROUNDCOVER DETAIL
NO SCALE

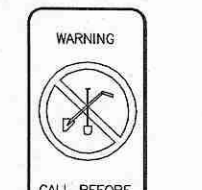
UNDISTURBED SUBGRADE.



SHRUB PLANTING DETAIL
NO SCALE



CALL JULIE TOLL FREE 1-800-882-0123 OPERATES 24 HOURS A DAY 365 DAYS A YEAR



REVISION	DATE	DESCRIPTION
5-S-G	02-08-2012	Landscape Plan

Tree Mitigation Plan and Details
Thomas Place
Orland Park, Illinois

Emerald
Site Services, LLC
8223 W. Lincoln Highway
Frankfort, Illinois 60423
P: (815) 469-7400 F: (815) 469-7413

SCALE: 1" = 30'
COMPUTER NAME: Lplan
JOB NUMBER:
PREPARED FOR: Ryan
LOCATION: Orland Park, IL
DATE: 10-17-11

**Thomas Place Project
Monitoring and Management Plan**

SECTION 1.0 NEAR-TERM MONITORING AND REPORTING

1.1 Responsible Parties

The owner, TPA Orland, L.P. will be responsible for funding and implementing a three-year "near-term" management and maintenance plan for establishing a naturalized landscape associated with the proposed Thomas Place project stormwater facility. The owner may elect to contract management and maintenance services to a third party to ensure proper implementation.

1.2 Monitoring Methodology

Areas of naturalized revegetation will be monitored following methodologies as outlined herein. Meander survey monitoring will be performed on an annual basis for three years after planting is substantially complete, or until the landscape is accepted by the Village. Annual vegetation monitoring will occur in August, September, or early October. Meander survey methodology will involve taking five to 10 representative site photographs and performing a review of at least 20 percent of each vegetative community to identify the following:

- the limits of all vegetation areas by general community type and dominant species within each planting zone (e.g., wetland and prairie zones),
- all plant species (native and non-native) in each planting zone,
- the approximate percent ground cover by native species within each planting zone,
- the percent ground cover by non-native or invasive species in each planting zone,
- erosion and sedimentation problems,
- water level or drainage problems,
- areas of bare soil larger than one square-meter, and
- observations on specific management strategies necessary to achieve acceptance requirements.

1.3 Reporting Requirements

The owner will provide the Village with notification 24-hours prior to the start of planting installation. Following substantial completion, the owner will document that natural area landscape revegetation has been completed. Nursery packing lists indicating the species and quantities of materials installed will accompany this notice.

In addition, the owner (or their designated representative) will submit an annual monitoring report to the Village of Orland Park by February 28th of the following year evaluating the progress of the naturalized landscape toward design goals. The report will contain a location map, a summary of annual monitoring observations, a description of management performed during the year, a tabular summary of annual progress relative to acceptance standards, and a list of recommendations for management during the upcoming year.

1.4 Acceptance Requirements

Satisfactory landscape development associated with naturalized vegetation in the stormwater facility will be based on the following items. The attainment of these items is expected to result in acceptance of the landscape improvement by the Village of Orland Park.

- Within three months of seed installation (or three months after the start of the growing season following dormant seeding), at least 90 percent of the seeded area, as measured by aerial cover, will be vegetated or otherwise stabilized against erosion.
- Naturalized landscapes shall have more than one square-meter devoid of vegetation, as measured by aerial coverage
- Seeded areas shall have no rills or gullies greater than four inches wide by four inches deep, and basin shorelines shall not have more than six inches of cut as a result of erosion.
- Areas seeded to turfgrass or low-maintenance turf shall have 95 percent ground cover.
- Emergent areas shall have minimum of 35 percent ground cover (avg. 50 percent) and other wetland and prairie areas shall have a minimum of 35 percent ground cover (avg. 60 percent) by species in the approved plant list and/or native species with native coefficient of conservation (C-) values 2 (per Swink and Wilhelm 1994 or more current version).
- Naturalized landscapes shall have a minimum of 30 percent presence by species seeded or planted for the permanent matrix and/or native species with C-value 2 (per Swink and Wilhelm 1994 or more current version).
- Installed woody materials shall be alive, in healthy condition, and representative of the species.
- No more than 25 percent of any specific plant community shall be individually or collectively dominated by non-native or weedy species.
- None of the three-most dominant species may be non-native or weedy, including but not limited to Canada thistle (*Cirsium arvense*), common reed (*Phragmites australis*), reed canarygrass (*Phalaris arundinacea*), sweetclover (*Melilotus* spp.), Kentucky bluegrass (*Poa pratensis*), purple loosestrife (*Lythrum salicaria*), barnyard grass (*Echinochloa crus-galli*) or sandbar willow (*Salix interior*) unless otherwise indicated on the approved planting plan.
- Cattails (*Typha* spp.) do not count towards the 25 percent weed criterion provided they represent no more than 20 percent cover.

Although not acceptance requirements, the following milestones will be assessed for Year 2 natural landscape development to help determine the need for and level of management appropriate to achieve Year 3 landscape acceptance:

- Minimum ground cover of 25 percent by species in the approved plant list and/or native species with C-value 2.
- Minimum presence of 20 percent by species seeded or planted for the permanent matrix and/or native species with C-value 2.

SECTION 2.0 NEAR-TERM MANAGEMENT FOR NATURALIZED LANDSCAPES

Near-term (i.e., three-year) management for naturalized landscapes associated with the Thomas Place development will involve monitoring and management to promote germination and establishment of desired plants. The following is a near-term maintenance plan for naturalized landscapes associated with the development.

2.1 Near-term Management Tasks

For several years after installation, naturalized landscapes will be managed on a regular basis to ensure successful establishment. Site characteristics influence how management and maintenance techniques are implemented. Vegetation management actions may differ from the tasks and frequencies indicated below based on specific recommendations from a Village-approved native landscape restoration specialist.

2.1.1 Undesirable Plant Control

The owner acknowledges that it is best to perform corrective actions for vegetation management early in the revegetation effort. Aggressive and/or non-native species will be managed such that their presence and density does not threaten the attainment of acceptance requirements.

Depending on the type of plant being targeted, control of undesirable plant species may involve removing all above-ground and below-ground stems, roots, and flower masses prior to development of seeds. Weeding practices will avoid damaging the native plantings and be timed to prevent development of weed seeds. The ability to differentiate between weeds and native seedlings is important. Plants may be left untreated until they can be positively identified.

Various means of weed control will be employed, as appropriate, and may include mechanical control, chemical control, and/or biological control.

Mechanical Control: Mechanical control of nuisance plant species typically includes cutting, mowing and/or the digging up individual plants by hand. In many cases, cutting or mowing a plant before its seeds mature will minimize further spread. Cutting or mowing close to the ground surface with a weed-eater or hand-scythe can be an effective means of control for species such as sweet clover, various thistles, and ragweed. For general mowing of swaths of vegetation, mowers will be set to a height of 12+ inches above the ground surface or to a height that treats weedy species yet minimizes impacts on desirable plants.

For species such as common reed, purple loosestrife, Canada thistle, and reed canarygrass, mowing actually encourages the spread of underground stems. Hand digging these species and woody undesirables such as multiflora rose can result in control if there are fewer than 100 plants throughout the entire site. Where more than 100 individuals of such plants are present, chemical control will be the primary method of control. (Note: Pulling and digging out weeds generally is discouraged because the soil disturbance can uproot desirable plants and encourage the growth of more weeds.)

Chemical Control: When employed in conjunction with prescribed burning and mechanical control, the judicious use of herbicides can be an important component of management programs for controlling weeds. Some weeds such as purple loosestrife, buckthorn (*Rhamnus* spp.) and honeysuckle (*Lonicera* spp.), reed canarygrass, common reed, sandbar willow, and cattails are controlled more effectively by chemical treatment than by most mechanical control measures.

For aggressive weeds, an appropriate herbicide will be applied. Because of the potential for herbicide application, the use of preventative herbicides will be limited to problem areas and problem species for which manual control is ineffective. Aquatic herbicides will not be used to treat algal blooms.

Case No: _____
Glyphosate herbicide (trade names Rodeo or Roundup) is often recommended for use in naturalized landscape areas. Other herbicides such as Transline, Plateau, and Garlon are also used. The application of herbicides will be performed only by persons licensed or certified in the State of Illinois for pesticide/herbicide application. Herbicide use will be in strict compliance with all application rates, procedures, warning labels and applicable codes, standards and best management practices.

Generally, spot applications will be preferred over spray application, which is less selective. Wicking applies herbicide only to individual plants, using a canvas-covered, perforated, chemical filled PVC pipe. Trained personnel walk the area, swinging the eight foot pipe from side to side above the native plants but deliberately striking invasive species. The pipe strikes and bends the weeds, smearing them with the chemical and destroying them within a few days. If used, spray applications will not occur on gusty days because non-target species could be affected.

Biological Control: An alternative to chemical treatment, use of biological controls for purple loosestrife will be considered provided site conditions are appropriate to support and maintain the insect population. Through this method, host-specific insects (one a root infesting weevil; others are leaf-eating chrysomelid beetles) are released to feed on the roots or leaves of purple loosestrife. If purple loosestrife becomes abundant, biological control can prove a cost-effective means of management.

2.1.2 Wildlife Management

It is generally accepted that the long-term use of even the most benign pesticides has effects on wildlife that are still only barely researched. Therefore, pesticides will not be used broadly or routinely at the mitigation site other than for mosquito abatement (should that be necessary). Pesticides will be used only for specific and localized problem areas as determined by a native landscape restoration specialist with experience in installation and development of native plant communities, should such areas occur. Standard application procedures and precautions for chemical application in wetland areas will be followed.

Control of nuisance species such as geese and ducks, which often forage on young emergent wetland plants, may be performed if monitoring indicates such species are responsible for poor plant establishment and performance. The method will be determined by a native landscape restoration specialist.

2.1.3 Debris Management

Debris (e.g., paper, plastic, metal, concrete, etc.) will be removed from the developed area every other month between March and November. Debris will be disposed of at an appropriate off-site trash receptacle or hauled to an approved dump site.

2.1.4 Fertilizer Application

For ecological reasons, a conservative approach to the application of fertilizers will be taken. Turf management chemicals will not be used within areas of naturalized plantings unless specifically prescribed by and per the direction of a native landscape restoration specialist. If used, special care will be taken to not apply fertilizers when inclement weather is forecast.

2.2 Schedule of Near-term Management Activities

The following text provides a general schedule of management and maintenance tasks for installation and establishment of naturalized landscapes. The actual schedule and tasks performed in any given year may differ from those indicated based on specific recommendations from a natural landscape restoration specialist.

2.2.1 Typical First-Year Management Actions

To prevent weed seed development, mowing to a height of 6 inches will be performed when vegetation reaches a height of 12 inches. (Note: Weekly mowing at turf lawn height will NOT be performed, as mowing too often can set-back native planting development.) A rotary or flail-type mower will be used to finely chop the cut material. If clippings shade the ground or smother the remaining plants, they will be bagged for off-site disposal or otherwise dispersed. The last mow will be timed so that vegetation can grow to a height of eight to 10 inches before winter.

Weeding practices will avoid damaging the native plantings and be timed to prevent development of weed seeds. For aggressive weeds, herbicide will be selectively applied (e.g., wick application, not spraying). Turf management chemicals will not be used on native plantings except as directed by a Village-approved landscape restoration specialist.

Debris and litter (e.g., paper, plastic, metal, concrete, grass clippings, brush, etc.) will be removed every other month between 1 March to 31 October to prevent floating materials from clogging the outlet. Debris will be disposed of at an appropriate off-site trash receptacle.

Other potential responsibilities may include, but are not limited to, access restriction enforcement, insect/pest control, erosion repairs, and wildlife management (e.g., control of carp, muskrats, geese, etc. as needed). The need for other management actions will be determined on a quarterly basis when performing general maintenance visits for dam embankments and control structures.

2.2.2 Typical Second-Year Management Actions

During the second growing season, the seeded area will be mowed as close to the ground as possible in early spring and the cuttings raked or bagged. If annual weeds remain a problem, an additional mow will be performed during mid- to late June, with the mow height set to 12 inches.

Weed management will emphasize control of biennial and perennial weeds. Biennial weeds targeted for control include sweetclovers (*Melilotus* spp.), Queen Anne's lace (*Daucus carota*), and teasel (*Dipsacus* spp.). Proper weed control may require multiple treatments and will be performed at times that will provide maximum treatment effectiveness.

Other management practices will include debris and litter removal, access restriction enforcement, and erosion control and repairs (as needed). Additional management tasks may include insect/pest control, reseeding/replanting in targeted areas, wildlife management as determined on a quarterly basis. If there is sufficient fuel, a prescribed burn may be attempted at the end of the second growing season, provided proper permits from the Illinois Environmental Protection Agency are obtained and notice is provided to the Village and local authorities.

2.2.3 Typical Third-Year Management Actions

Typical management in the third growing season will involve the use of prescribed fire in combination with mechanical and chemical methods for controlling aggressive biennial and perennial weeds.

A permit will be obtained from the Illinois Environmental Protection Agency prior to conducting a prescribed burn. The burn will occur between mid-October and April as weather and site conditions permit. Prior to conducting a prescribed burn, notice must be provided to the Village and local authorities. If prescribed burning is not practical, mowing in late fall or very early spring will be substituted for burning. The burn-replacement mow will be done at a height of two inches, with cut material bagged for off-site disposal.

As in the first two years, management of aggressive weeds will continue. Other management practices will include debris and litter removal, access restriction enforcement, and erosion control and repairs (as needed). Additional management tasks may include insect/pest control, reseeding/replanting in targeted areas, wildlife management as determined on a quarterly basis when performing general maintenance visits for dam embankments and control structures.

BOARD APPROVED

W/Conditions

VILLAGE OF ORLAND PARK

REVISION:	
S.S.G. 02-08-2012	Landscape Plan
S.S.G. 05-22-2012	Landscape Plan

**Monitoring & Maintenance Plan
Thomas Place
Orland Park, Illinois**

Emerald
Site Services, LLC
8223 W. Lincoln Highway
Frankfort, Illinois 60423
P: (815) 469-7400 F: (815) 469-7413

SCALE: 1" = 30'
PREPARED FOR: Ryan
LOCATION: Orland Park, IL
DATE: 10-17-11

COMPUTER NAME: Lplan
JOB NUMBER:

SHEET
L-5

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