STORMWATER OPERATION AND MAINTENANCE AGREEMENT

This Stormwater Operation and Maintenance Agreement (the "Agreement") is executed this ___ day of _____, 2021, between the Village of Romeoville, an Illinois home rule municipal corporation ("Village") and FRED-ROMEOVILLE HC, LLC, a Wisconsin limited liability company ("Developer").

RECITALS

A. Developer is the owner of real property located in the Village which is legally described on attached Exhibit A and incorporated by reference herein, and which is currently under development by the Developer as a Seasons of Romeoville ("Project").

B. Pursuant to Chapter 160 of the Village Code of Ordinances, one of the requirements for the issuance of a stormwater permit to Developer is to provide the Village with an operation and maintenance agreement ensuring the reasonable long-term maintenance of stormwater and drainage facilities constructed to serve the Project. Specifically, the provisions of §§ 160.135 through 160.140 are hereby incorporated by reference in this agreement and the overall approval of the proposed development and the Developer's acceptance of this agreement and commencement of the proposed development shall be deemed to be the Developer's acceptance and assumption of the obligations imposed under this agreement.

C. The stormwater and drainage facilities approved by Village for the Project (subject to the execution of the above-contemplated agreement) are described and depicted in Exhibit B, attached hereto, and incorporated herein by reference.

D. For purposes of this agreement, the long-term party responsible for the maintenance is the Developer initially but the Developer may subsequently be replaced with Homeowner's or similar association. These terms shall be considered equivalent for purposes of this agreement.

Now, therefore, the parties agree as follows:

Section 1. Compliance with Laws, Ordinances, Permits. Developer agrees to construct, install, and operate the Project in accordance with approvals received from the Village and other governmental entities with applicable jurisdiction. In constructing the Project, Developer agrees to comply with all state and local laws, ordinances, and regulations as well as the terms of this Agreement.

Section 2. Compliance with Village Approvals. Without limiting the provisions of Section 1, the Developer agrees to construct and operate the Project in accordance with the terms and conditions of all Village ordinances and all approvals heretofore sought from and issued by the Village with respect to the development of the Project as well as the terms and conditions of this Agreement and its Exhibits.

Section 3. Alterations or changes. No alterations or changes to the stormwater systems, as defined in this Agreement, shall be permitted unless they are approved, in writing, by the Village, and any such approved changes will be deemed to comply with this Agreement.

Section 4. Easements to be secured and recorded. The Developer, at its expense, shall secure from any affected owners (including itself) of land all easements and releases of rights-of-way necessary for utilization of the stormwater systems, as defined in this Agreement, and shall record them with the Will County Recorder of Deeds. These easements will provide for appropriate ingress and egress to and maintenance of such all portions of said stormwater systems and releases of rights-of-way will not be altered, amended, vacated, released, or abandoned without prior written approval of the Village. Shrubs, trees, or permanent structures shall not be located within the easements utilized by the Developer without the prior written approval of the Village. These easements will provide rights to the Homeowner's or similar association as well as the Village of Romeoville.

Section 5. Operation and Maintenance of Stormwater and Drainage System. As used in this Section, "stormwater and drainage system" shall mean all stormwater systems, catch basins, storage structures, drains, leaching basins, ponds, pipes, and appurtenances located on the Property including, but not limited to, all pollution-control devices utilized as part of the stormwater and drainage system, as set forth in Exhibit B. As used herein, "maintain" or "maintenance" shall mean inspecting, cleaning out, mowing, repairing, and removing accumulated sediment, leaves, weeds, debris, and obstructions from all ponds, leach basins, pollution-control devices, or similar appurtenances of the stormwater and drainage system such that failure to maintain is likely to result in impeding the functioning of the stormwater and drainage system.

A. Operation of Stormwater and Drainage System. The Developer shall at all times operate the stormwater system in a manner consistent with generally accepted stormwater management practices and the provisions of Chapter 160 of the Village Code of Ordinances.

B. Maintenance of Stormwater and Drainage System. Not less than annually, the Developer shall maintain the stormwater and drainage system located on the Property. As required by 160.135(A)(C), the then-current maintenance provider (Developer, Homeowner's, or similar association) shall be required to comply with the requirements of a Pond Self-Inspection Program. In the event that such maintenance is not conducted, the Village shall notify the Developer, specifying the necessary maintenance. Within thirty (30) days of the notice, the Developer shall perform the specified maintenance at its expense. Within thirty-six (36) hours of notice, the Developer shall perform any specified emergency maintenance as may be required in the Village's notice.

A. Requirements of the Homeowner's or Similar Association.

(1) The association shall be duly incorporated and a copy of the Certificate of Incorporation, duly recorded, and bylaws, and any amendment to either of them, shall be delivered to the Village;

(2) The bylaws of the association shall, at a minimum, contain:

(a) A provision acknowledging and accepting the association's obligation to maintain certain portions of the stormwater drainage system as described above;

(b) A mechanism for imposing an assessment upon the owners of all of the lots or parcels comprising the development sufficient, at a minimum, to provide for the maintenance of those portions of the stormwater drainage system as described above and the payment of all taxes levied thereon;

(c) A provision adopting the plan of long-term maintenance set forth in the approved design documents, with approved amendments;

(d) A provision identifying the officer of the association responsible for carrying out the obligations imposed upon the association, and an obligation to inform the Village of the name, address and phone number of this officer and any changes thereto;

(e) A provision requiring the consent of the Village to any amendment of the bylaws changing any of the provisions of the bylaws required by this agreement; and

(f) A provision requiring the consent of the Village to the dissolution of the association.

D. Failure to Maintain. In the event the Developer does not operate and maintain the stormwater and system as required under the terms of this Agreement, the Village shall be entitled, and is hereby expressly authorized by the Developer, to take one or more of the following actions (or any combination of the same):

(1) The Village or its agent may go onto the Property and maintain the stormwater and drainage system. Not less than ten (10) days before taking such action, the Village shall provide to the Developer and any other owners (as determined by reference to the tax rolls maintained by the Will County Treasurer), by first-class mail, notice of its intention. The Developer hereby grants to the Village and its agents a non-revocable license to go onto the Property to carry out the provisions of this subsection. The Village will invoice the cost of the specified maintenance, and the Developer shall pay the amount of the invoice within thirty (30) days of the Village's mailing the invoice by first class mail. If the Developer shall fail to pay the amount of the invoice, all costs, fees, or expenses incurred by the Village in maintaining the stormwater system pursuant to this subsection may be, without further notice, assessed as a lien on the Property, to be collected in any manner provided for by law.

(2) Require the Developer to provide a letter of credit in an amount sufficient to ensure maintenance of the stormwater and drainage system, in a

form satisfactory to the Village. The Developer shall provide the requested letter of credit within fifteen (15) business days of receiving such a request from the Village. The letter of credit shall provide that the payment to the Village shall be assured upon submission by the Village of notice that the Developer has not maintained the stormwater and drainage system as required by this Agreement.

Section 6. Violation of Agreement. The parties acknowledge that monetary damages for a breach of this Agreement would be inadequate to compensate the parties for the benefit of their bargain. Accordingly, the parties expressly agree that in the event of a violation of this Agreement, the non-breaching party shall be entitled to receive specific performance. Nothing herein shall be deemed a waiver of the Village's rights to seek enforcement of this Agreement, any approvals previously granted, or any other available remedies for breach of this Agreement to the extent otherwise authorized by law. A violation of the terms and conditions of this Agreement by the Developer or its successors subsequent to the completion of the Project shall entitle the Village, in the event of litigation to enforce this Agreement, to receive its reasonable attorney and consulting fees incurred.

Section 7. Recording. The obligations under this Agreement are covenants that run with the land and bind successors in title of the Developer. It is the parties' intent that this Agreement shall be recorded with the Will County Recorder of Deeds. The Developer shall be responsible for all costs associated with the recording of the Agreement.

Section 8. Miscellaneous.

A. Severability. The invalidity or unenforceability of any provision of this Agreement shall not affect the enforceability or validity of the remaining provisions and this Agreement shall be construed in all respects as if any invalid or unenforceable provision were omitted.

B. Notices. All notices permitted or required to be given shall be in writing and sent either by mail or by personal delivery to the addresses given below:

To Village:
Village of Romeoville
Attn: Village Engineer
1050 Romeo Road
Romeoville, IL 60446

To Developer:
FRED-ROMEOVILLE HC, LLC,
a Wisconsin limited liability company
Attn. Steve Bersell, COO
789 N Water St #200
Milwaukee, WI 53202

C. Waiver. No failure or delay on the part of any party in exercising any right, power or privilege under this Agreement shall operate as a waiver thereof, nor shall any single or partial exercise of any right, power, or privilege under this Agreement preclude further exercise thereof or the exercise of any other right, power, or privilege. The rights and remedies provided in this Agreement are cumulative and not exclusive of any rights and remedies provided by law.

D. Governing Law. This Agreement is being executed and delivered and is intended to be performed in the State of Illinois and shall be construed and enforced in accordance with, and the rights of the parties shall be governed by, the laws thereof.

E. Amendment. This Agreement may only be amended in writing, signed by all parties.

The parties have executed this Agreement on the day and year first above written.

Village of Romeoville	Fred-Romeoville HC, LLC (Developer)
By:_____	By: _____
Attest:_____	Attest:_____

EXHIBIT A

LEGAL DESCRIPTION

Lot 1 of the Seasons at Romeoville Subdivision being a subdivision of that part of the west half of the northwest quarter of section 17, township 36 north, range 10 east of the third principal meridian, according to the plat thereof recorded as document R2020-080266, in will county, Illinois.

EXHIBIT B

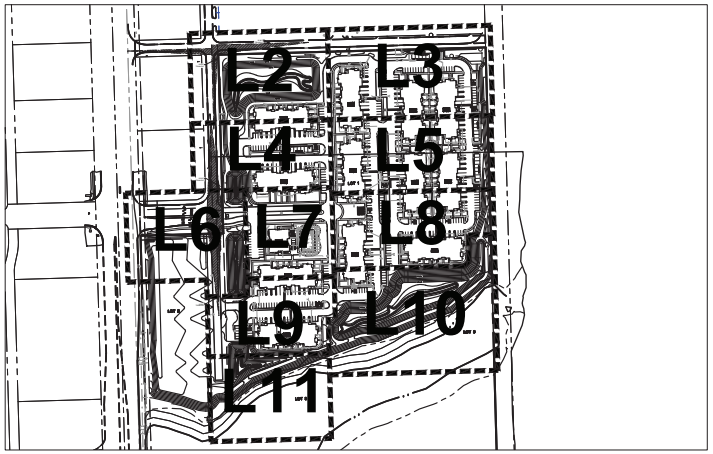
FINAL LANDSCAPE PLAN
for

SEASONS AT ROMEOVILLE
SOUTHEAST OF AIRPORT ROAD AND WEBER ROAD
VILLAGE OF ROMEOVILLE, ILLINOIS

INDEX OF SHEETS	
SHEET NO.	DESCRIPTION
L1	TITLE SHEET AND LANDSCAPE SUMMARY
L2	FINAL LANDSCAPE PLAN
L3	FINAL LANDSCAPE PLAN
L4	FINAL LANDSCAPE PLAN
L5	FINAL LANDSCAPE PLAN
L6	FINAL LANDSCAPE PLAN
L7	FINAL LANDSCAPE PLAN
L8	FINAL LANDSCAPE PLAN
L9	FINAL LANDSCAPE PLAN
L10	FINAL LANDSCAPE PLAN
L11	FINAL LANDSCAPE PLAN
L12	LANDSCAPE DETAILS
L13	LANDSCAPE SPECIFICATIONS
L14	NATIVE PLANTING SPECIFICATIONS

Landscape Notes:

1. Seed/ Sod limit line is approximate. Seed/ Sod to limits of grading and disturbance. Contractor responsible for restoration of any unauthorized disruption outside of designated construction area.
2. Contractor responsible for erosion control in all seeded/ sodded areas.
3. Tree mulch rings in turf areas are 5' diameter. Contractor shall provide a mulch ring around all existing trees within the limits of work. Remove all existing grass from area to be mulched and provide a typical spade cut edge. Landscape Fabric shall not be installed under mulch.
4. Bedlines are to be spade cut to a minimum depth of 3". Curved bedlines are to be smooth and not segmented.
5. All planting, beds shall receive top dressing of mulch. Landscape fabric shall not be installed under mulch.
6. Do not locate plants within 10' of utility structures or within 5' horizontally of underground utility lines unless otherwise shown on plans. Consult with Landscape Architect if these conditions exist.
7. For Lump Sum Contracts, plants and other materials are quantified and summarized for the convenience of the Owner and jurisdictional agencies only. Confirm and install sufficient quantities to complete the work as drawn and specified. No additional payments will be made for materials required to complete the work as drawn and specified.
8. For Unit Price Contracts, payments will be made based on actual quantities installed as measured in place by the Owner's Representative.
9. It is the responsibility of the contractor to locate and provide plant material as specified on this plan. The contractor may submit a request to provide substitutions for the specified plant material under the following conditions:
   a. Any substitutions proposed shall be submitted to the project owner's representative within two weeks of the award of contract. Substitutions must meet equivalent design and functional goals of the original materials as determined by the owner's representative. Any changes must have the approval of the owner's representative.
   b. The request will be accompanied by at least three notices from plant material suppliers that the plant material specified is not available and will not be available prior to construction.
10. Verify site conditions and information on drawings. Promptly report any concealed conditions, mistakes, discrepancies or deviations from the information shown in the Contract Documents. The Owner is not responsible for unauthorized changes or extra work required to correct unreported discrepancies. Commencement of work shall constitute acceptance of conditions and responsibility for corrections
11. A minimum of two working days before performing any digging, call underground service alert for information on the location of natural gas lines, electric cables, telephone cables, etc. The contractor shall be responsible for location and protection of all utilities, and repair of any damage resulting from his work at no additional cost to the owner.
12. Contractor shall promptly repair all damages to existing site at no cost to owner.
13. Refer to landscape specifications for additional conditions, standards, and notes.



KEY MAP

GRAPHIC SCALE
200 0 100 200 400 800
(IN FEET)
1 inch = 200 ft.
NORTH

LICENSED LANDSCAPE ARCHITECT
JAMES MATTHEW NELSON
157-001644
STATE OF ILLINOIS
SEAL Date: 05/01/20
James Matthew Nelson, ASLA, PLA, LEED
Illinois Registered Landscape Architect
157-001644
Expires 08/31/2021

JULIE ILLINOIS ONE-CALL SYSTEM
Simply Call 811

SEEDING SCHEDULE

	ECONOMY PRAIRIE SEED MIX See L12 for detail See Engineering Plans for Erosion Control Blanket Plan -	80,498 sf
	STORMWATER SEED MIX See L12 for details See Engineering Plans for Erosion Control Blanket Plan -	65,978 sf
	EMERGENT WETLAND PLUGS Plant at 3,500 plants per Acre. See L12 for details -	40,395 sf
	ANNUALS BY OWNER -	444 sf
	TURF AREA Seed and Blanket	
	SOD AREA -	

PLANT SCHEDULE

CONIFEROUS TREES	QTY	BOTANICAL NAME	COMMON NAME	SIZE	CONTAINER	
JUN FA7	12	Juniperus chinensis 'Fairview'	Fairview Juniper	6' Ht.	B&B	
PIC ABI	16	Picea abies	Norway Spruce	6' Ht.		
PIC BLA	9	Picea glauca densata	Black Hills Spruce	6' Ht.	B&B	
TAX DIS	22	Taxodium distichum	Bald Cypress	6' Ht.	B&B	
DECIDUOUS TREES	QTY	BOTANICAL NAME	COMMON NAME	SIZE	CONTAINER	
ACE RE5	33	Acer rubrum	Red Maple	2.5" Cal.	B&B	
AME GRA	25	Amelanchier x grandiflora 'Autumn Brilliance'	Autumn Brilliance Serviceberry	6' Ht.	B&B	
BET HER	9	Betula nigra 'Heritage'	Heritage River Birch	8' Ht.	B&B	
CEL OCC	14	Celtis occidentalis	Common Hackberry	2.5" Cal.	B&B	
GIN BIL	8	Ginkgo biloba	Maidenhair Tree	2.5" Cal.	B&B	
GLE IN4	36	Gleditsia triacanthos inermis	Thornless Honeylocust	2.5" Cal.	B&B	
HAM VIR	9	Hamamelis virginiana	Common Witch Hazel	6' Ht.	B&B	
LIR TUL	11	Liriodendron tulipifera	Tulip Tree	2.5" Cal.	B&B	
QUE BIC	16	Quercus bicolor	Swamp White Oak	2.5" Cal.	B&B	
QUE MAC	3	Quercus macrocarpa	Burr Oak	2.5" Cal.	B&B	
QUE RUB	12	Quercus rubra	Red Oak	2.5" Cal.	B&B	
SYR RET	9	Syringa reticulata	Japanese Tree Lilac	6' Ht.	B&B	
TIL RED	24	Tilia americana 'Redmond'	Redmond American Linden	2.5" Cal.	B&B	
DECIDUOUS SHRUBS	QTY	BOTANICAL NAME	COMMON NAME	SIZE	CONTAINER	
ARO MOR	100	Aronia melanocarpa 'Morton' TM	Iroquis Beauty Black Chokeberry	3 gal.	Pot	
ARO MEL	16	Aronia melanocarpa elata	Glossy Black Chokeberry	5 gal.	Pot	
CAL HUU	23	Callicarpa x 'NCCX2' TM	Pearl Glam Beauty Berry	3 gal.	Pot	
COR GR2	6	Cornus racemosa	Gray Dogwood	5 gal.	Pot	
COR ISA	25	Cornus sericea 'Isanti'	Isanti Redosier Dogwood	5 gal.	Pot	
COT VA4	13	Cotoneaster acutifolius lucidus	Hedge Cotoneaster	5 gal.	Pot	
LON RIV	87	Diervilla x 'G2X88544' TM	Kodiak Orange Honeysuckle	3 gal.	Pot	
FOT GAR	57	Fothergilla gardenii	Dwarf Fothergilla	3 gal.	Pot	
FOT MAJ	15	Fothergilla major 'Mount Airy'	Mount Airy Fothergilla	3 gal.	Pot	
HYD ANN	20	Hydrangea arborescens 'Annabelle'	Annabelle Hydrangea	5 gal.	Pot	
HYD VIM	19	Hydrangea paniculata 'Kolmavesu' TM	Lava Lamp Flare Hydrangea	3 gal.	Pot	
HYD LIM	48	Hydrangea paniculata 'Limelight'	Limelight Hydrangea	5 gal.	Pot	
HYD LS8	48	Hydrangea paniculata 'Little Lime'	Little Lime Hydrangea	5 gal.	Pot	
HYD ALI	34	Hydrangea quercifolia 'Alice'	Alice Oakleaf Hydrangea	5 gal.	Pot	
ITE NNG	87	Itea virginica 'SMNIVDFC' TM	Scentlandia Virginia Sweetspire	3 gal.	Pot	
POT JAC	40	Potentilla fruticosa 'Jackmanii'	Jackman`s Potentilla	5 gal.	Pot	
RHU GRO	23	Rhus aromatica 'Gro-Low'	Gro-Low Fragrant Sumac	5 gal.	Pot	
ROS 384	25	Rosa rugosa 'Rotesmeer'	Purple Pavement Rose	5 gal.	Pot	
ROS FL5	6	Rosa x 'Flower Carpet Red'	Rose	3 gal.	Pot	
ROS 361	177	Rosa x 'Radtko'	Double Knock Out Red Rose	3 gal.	Pot	
SOR SEM	121	Sorbaria sorbifolia 'Sem'	Sem Ash Leaf Spirea	3 gal.	Pot	
EVERGREEN SHRUBS	QTY	BOTANICAL NAME	COMMON NAME	SIZE	CONTAINER	
BUX GL6	330	Buxus x 'Glencoe'	Chicagoland Green Boxweed	5 gal.	Pot	
JUN FOR	5	Juniperus chinensis 'Sea Green'	Sea Green Juniper	5 gal.	B&B	
TAX DEN	97	Taxus x media 'Densiformis'	Dense Yew	5 gal.	Pot	
TAX TAU	253	Taxus x media 'Tauntonii'	Taunton`s Yew	5 gal.	Pot	
THU SMA	48	Thuja occidentalis 'Smaragd'	Emerald Green Arborvitae	5 gal.	Pot	
FERNS	QTY	BOTANICAL NAME	COMMON NAME	SIZE	CONTAINER	
DEN PUN	152	Dennstaedtia punctilobula	Hay-scented Fern	1 gal.	Pot	
MAT STR	26	Matteuccia struthiopteris	Ostrich Fern	1 gal.	Pot	
ORNAMENTAL GRASSES	QTY	BOTANICAL NAME	COMMON NAME	SIZE	CONTAINER	
CAL REE	87	Calamagrostis brachytricha	Korean Feather Reed Grass	1 gal.	Pot	
CAL KAR	185	Calamagrostis x acutiflora 'Karl Foerster'	Feather Reed Grass	1 gal.	Pot	
MIS PUR	39	Miscanthus sinensis 'Purpurescens'	Flame Grass	1 gal.	Pot	
PAN SHD	53	Panicum virgatum 'Shenandoah'	Shenandoah Switch Grass	1 gal.	Pot	
PEN HAM	333	Pennisetum alopecuroides 'Hameln'	Hameln Fountain Grass	1 gal.	Pot	
SPO HET	159	Sporobolus heterolepis	Prairie Dropseed	1 gal.	Pot	
PERENNIALS	QTY	BOTANICAL NAME	COMMON NAME	SIZE	CONTAINER	SPACING
ALL SU7	184	Allium x 'Summer Beauty'	Summer Beauty Allium	1 gal.	Pot	24" o.c.
AST PU7	36	Astilbe chinensis 'Pumila'	Dwarf Pink Astilbe	1 gal.	Pot	12" o.c.
GER ROZ	621	Geranium x 'Rozanne'	Rozanne Cranesbill	1 gal.	Pot	24" o.c.
HEM ORO	106	Hemerocallis x 'Stella de Oro'	Stella de Oro Daylily	1 gal.	Pot	18" o.c.
HEU O25	201	Heuchera x 'Obsidian'	Coral Bells	1 gal.	Pot	18" o.c.
HOS RO2	52	Hosta x 'Royal Standard'	Plantain Lily	1 gal.	Pot	36" o.c.
LAV VPX	36	Lavandula x intermedia 'Niko' TM	Phenomenal Lavender	1 gal.	Pot	36" o.c.
NEP XBM	495	Nepeta x faassenii 'Early Bird'	Early Bird Catmint	1 gal.	Pot	18" o.c.
PAC GRE	12	Pachysandra terminalis 'Green Carpet'	Japanese Spurge	flat	Plug	12" o.c.
PER ATR	93	Perovskia atriplicifolia	Russian Sage	1 gal.	Pot	36" o.c.
RUD G19	259	Rudbeckia fulgida 'Goldsturm'	Goldsturm Coneflower	1 gal.	Pot	24" o.c.
VIN DAR	840	Vinca minor 'Dart`s Blue'	Dart`s Blue Periwinkle	flat	Pot	12" o.c.

DRAWN BY	REVISIONS	DATE	
MN	09-02-20 REVISED PER VILLAGE COMMENTS	09-02-20	1
MN	08-04-20 REVISED PER VILLAGE COMMENTS	08-04-20	2
MN	06-15-20 REVISED PER VILLAGE COMMENTS	06-15-20	3

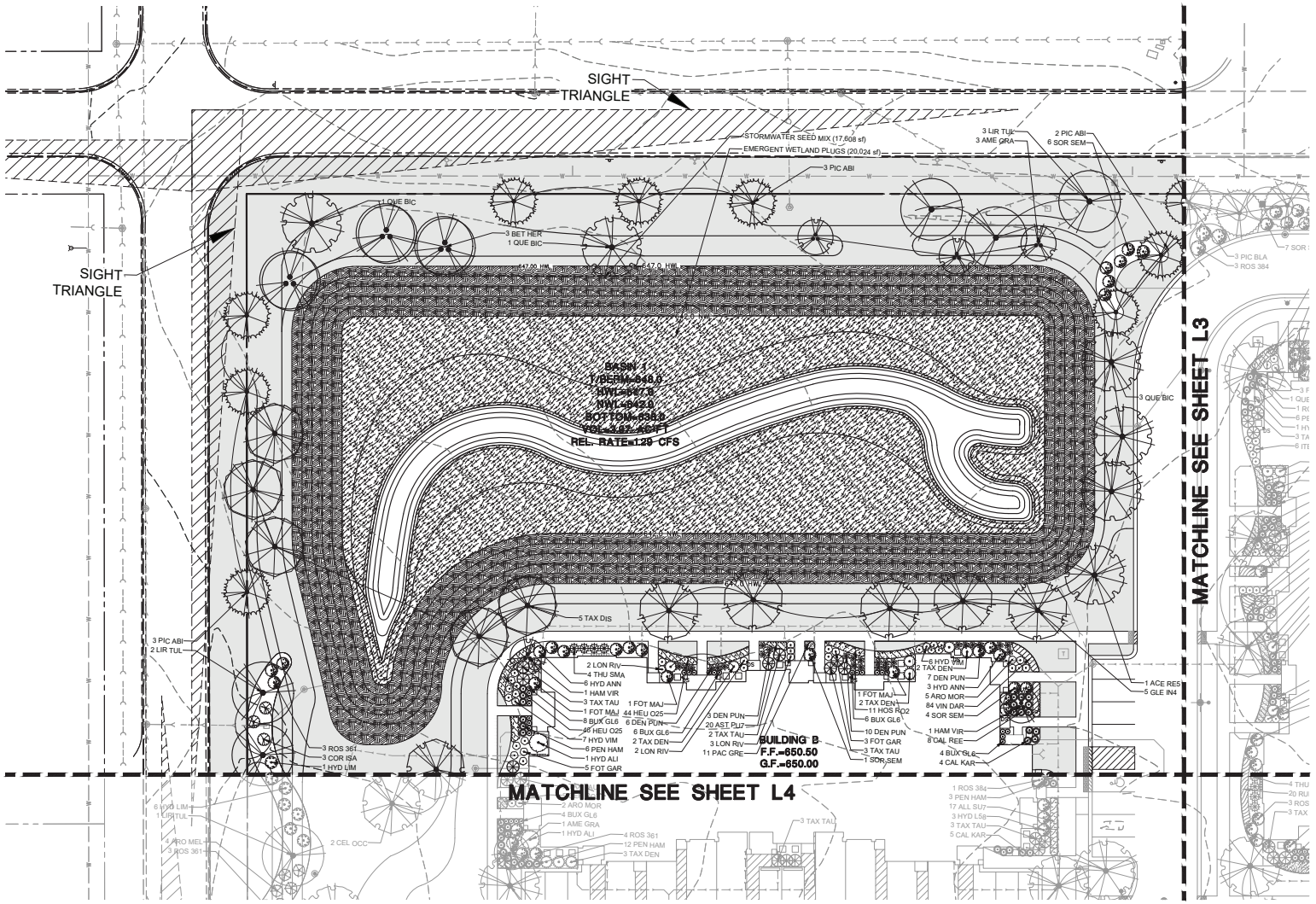
Manhard CONSULTING
700 Springer Drive, Lombard, IL 60148 ph 630 691 8300 / fx 630 691 8345 manhard.com
Civil Engineers | Surveyors | Water Resource Engineers | Water Management Engineers
Construction Managers | Environmental Scientists | Landscape Architects | Planners

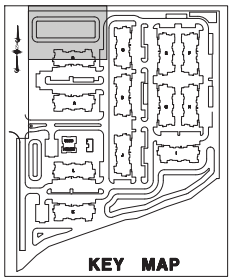
SEASONS AT ROMEOVILLE
VILLAGE OF ROMEOVILLE, ILLINOIS
TITLE SHEET AND LANDSCAPE SUMMARY

PROJ. MGR.: JGP
PROJ. ASSOC.: MN
DRAWN BY: MN
DATE: 05-01-20
SCALE: NTS

SHEET
L1 OF L14

FRD.RVIL01





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SCALE: 1"=20'

SEEDING SCHEDULE

ECONOMY PRAIRIE SEED MIX See L12 for detail See Engineering Plans for Erosion Control Blanket Plan	80,498 sf
STORMWATER SEED MIX See L12 for details See Engineering Plans for Erosion Control Blanket Plan	65,978 sf
EMERGENT WETLAND PLUGS Plant at 3,500 plants per Acre. See L12 for details	40,395 sf
ANNUALS BY OWNER	444 sf
TURF AREA Seed and Blanket	
SOD AREA	

DATE	REVISIONS	DRAWN BY
		MN
		MN
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08-04-20	REVISED PER VILLAGE COMMENTS	MN
06-15-20	REVISED PER VILLAGE COMMENTS	MN

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Civil Engineers | Land Surveyors | Water Resource Engineers | Structural Engineers
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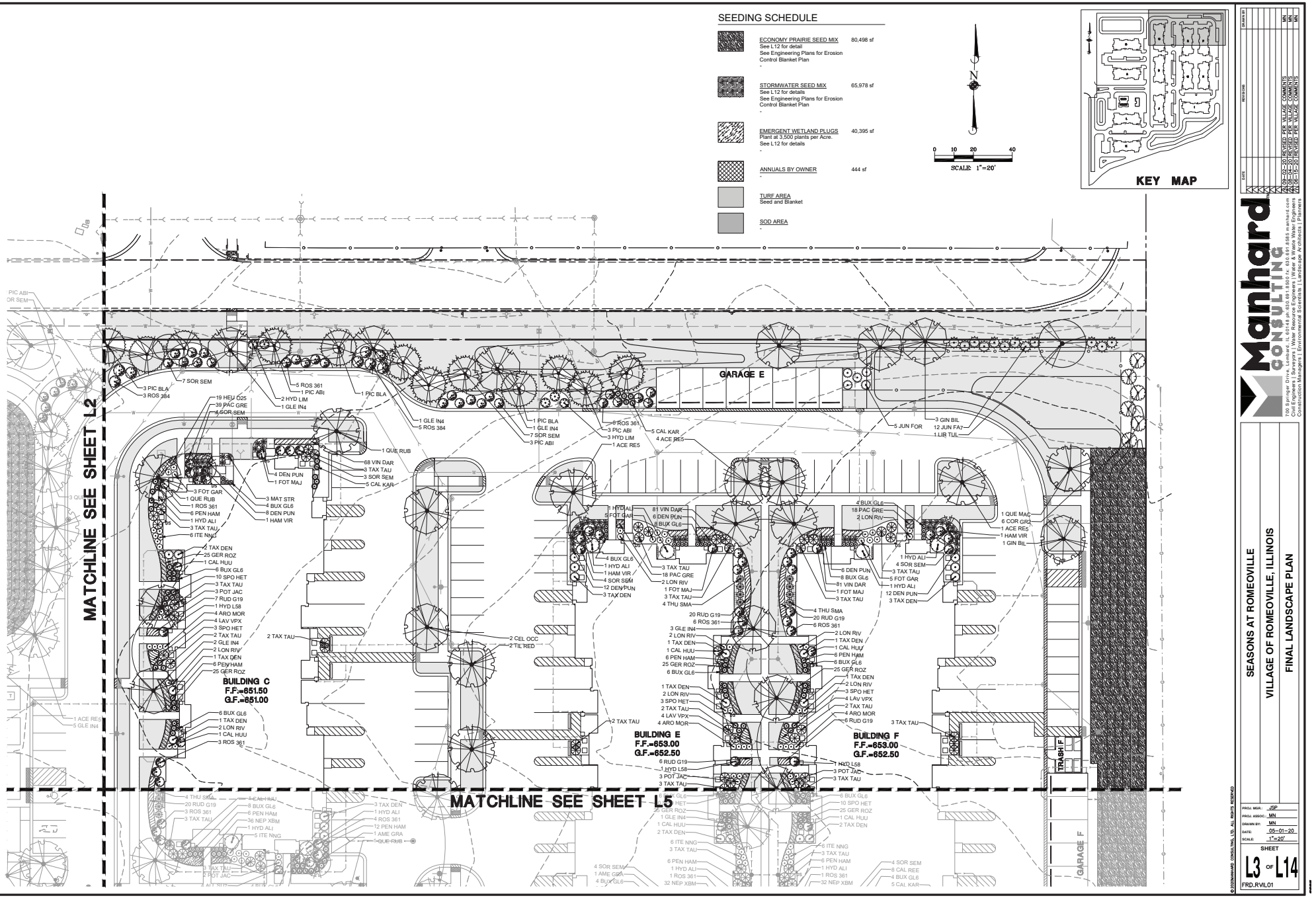
SEASONS AT ROMEOVILLE
VILLAGE OF ROMEOVILLE, ILLINOIS
FINAL LANDSCAPE PLAN

PROJ. MGR.: JGP
PROJ. ASSOC.: MN
DRAWN BY: MN
DATE: 05-01-20
SCALE: 1"=20'

SHEET
L2 OF L14
FRD.RVIL01



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MN		
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Manhard CONSULTING
706 Springer Drive, Lombard, IL 60148 ph 630.691.8300 fx 630.691.8585 manhard.com
7550 W. Lake Street, Suite 300, River Forest, IL 60305 ph 708.209.1000 fx 708.209.1001
Construction Managers | Environmental Scientists | Landscape Architects | Planners

SEASONS AT ROMEOVILLE
VILLAGE OF ROMEOVILLE, ILLINOIS
FINAL LANDSCAPE PLAN

PROJ. MGR.: JGP
PROJ. ASSOC.: MN
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DATE: 05-01-20
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SHEET
L3 OF L14
FRD.RVIL01

SEEDING SCHEDULE

	ECONOMY PRAIRIE SEED MIX See L12 for detail See Engineering Plans for Erosion Control Blanket Plan	80,498 sf
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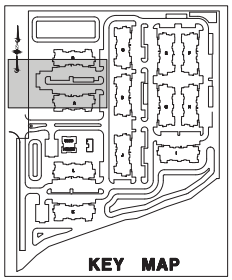
	SOD AREA	

N

0 10 20 40

SCALE: 1"=20'



MATCHLINE SEE SHEET L2

MATCHLINE SEE SHEET L5

MATCHLINE SEE SHEET L6

MATCHLINE SEE SHEET L7

BUILDING A
F.F.=650.20
G.F.=649.70

BUILDING B
F.F.=650.00
G.F.=649.80

GARAGE B

MAINTENANCE

TRASH B

SIGHT TRIANGLE

BASIN 1A
HWL=647.20
NWL=645.70
BOTTOM=644.70
VOL.=2.61 AC-FT
DEL. RATE=4.1 CFS

STORMWATER SEED MIX (4,410 sf)

DRAWN BY		
REVISIONS		
DATE		
09-02-20	REVISED PER VILLAGE COMMENTS	MN
08-04-20	REVISED PER VILLAGE COMMENTS	MN
06-15-20	REVISED PER VILLAGE COMMENTS	MN

Manhard CONSULTING

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7550 Meridian Circle North, Suite 150, Maple Grove, MN 55369 ph 763 424 0954
Construction Managers | Environmental Scientists | Landscape Architects | Planners

SEASONS AT ROMEOVILLE

VILLAGE OF ROMEOVILLE, ILLINOIS

FINAL LANDSCAPE PLAN

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DRAWN BY: MN
DATE: 05-01-20
SCALE: 1"=20'

SHEET
L4 OF L14
FRD.RVIL01

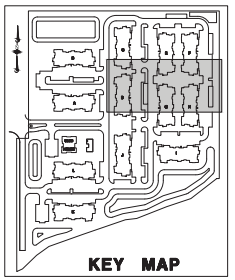
SEEDING SCHEDULE

ECONOMY PRAIRIE SEED MIX See L12 for detail See Engineering Plans for Erosion Control Blanket Plan -	80,498 sf	TURF AREA Seed and Blanket
STORMWATER SEED MIX See L12 for details See Engineering Plans for Erosion Control Blanket Plan -	65,978 sf	SOD AREA -
EMERGENT WETLAND PLUGS Plant at 3,500 plants per Acre. See L12 for details -	40,395 sf	
ANNUALS BY OWNER -	444 sf	

N

0 10 20 40

SCALE: 1"=20'



MATCHLINE SEE SHEET L4

MATCHLINE SEE SHEET L3

MATCHLINE SEE SHEET L8

LOT 1

BUILDING D
F.F.=651.50
G.F.=651.00

BUILDING E
F.F.=653.00
G.F.=652.50

BUILDING F
F.F.=653.00
G.F.=652.50

BUILDING G
F.F.=653.00
G.F.=652.50

BUILDING H
F.F.=653.00
G.F.=652.50

GARAGE F

GARAGE G

GARAGE H

TRASH F

TRASH G

TRASH H

G.F.=651.00

DRAWN BY	DATE	REVISIONS	
MN			
MN			
MN			
MN	09-02-20	REVISED PER VILLAGE COMMENTS	
MN	08-04-20	REVISED PER VILLAGE COMMENTS	
MN	06-15-20	REVISED PER VILLAGE COMMENTS	

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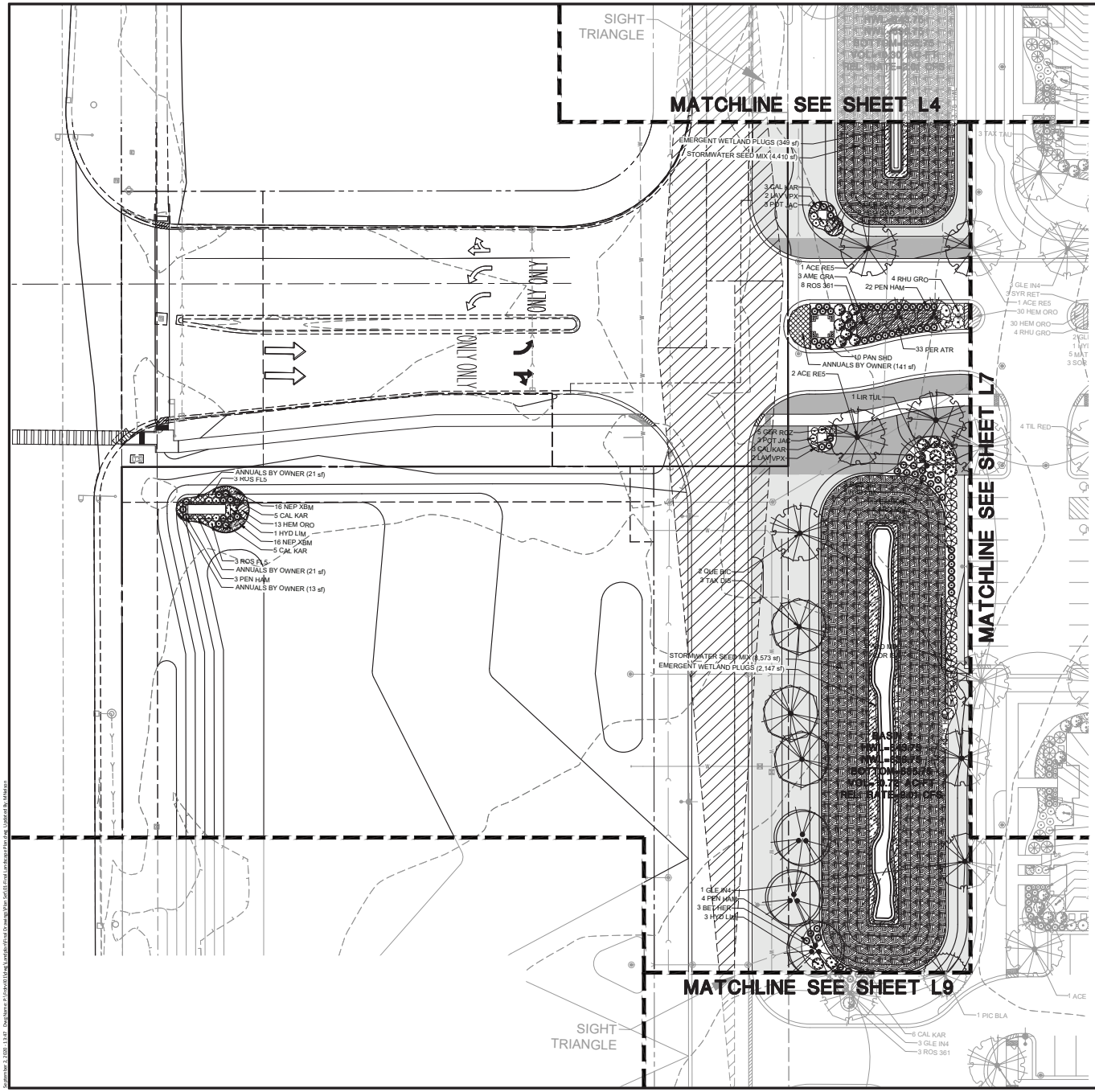
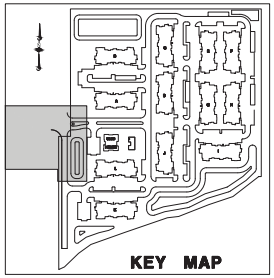
SEASONS AT ROMEOVILLE
VILLAGE OF ROMEOVILLE, ILLINOIS
FINAL LANDSCAPE PLAN

PROJ. MGR.: JGP
PROJ. ASSOC.: MN
DRAWN BY: MN
DATE: 05-01-20
SCALE: 1"=20'

SHEET
L5 OF L14
FRD.RVIL01





SEEDING SCHEDULE

	ECONOMY PRAIRIE SEED MIX See L12 for detail See Engineering Plans for Erosion Control Blanket Plan -	80,498 sf
	STORMWATER SEED MIX See L12 for details See Engineering Plans for Erosion Control Blanket Plan -	65,978 sf
	EMERGENT WETLAND PLUGS Plant at 3,500 plants per Acre. See L12 for details -	40,395 sf
	ANNUALS BY OWNER -	444 sf
	TURF AREA Seed and Blanket	
	SOD AREA -	

DRAWN BY	REVISIONS	DATE
MN	09-02-20 REVISED PER VILLAGE COMMENTS	09-02-20
MN	08-04-20 REVISED PER VILLAGE COMMENTS	08-04-20
MN	06-15-20 REVISED PER VILLAGE COMMENTS	06-15-20

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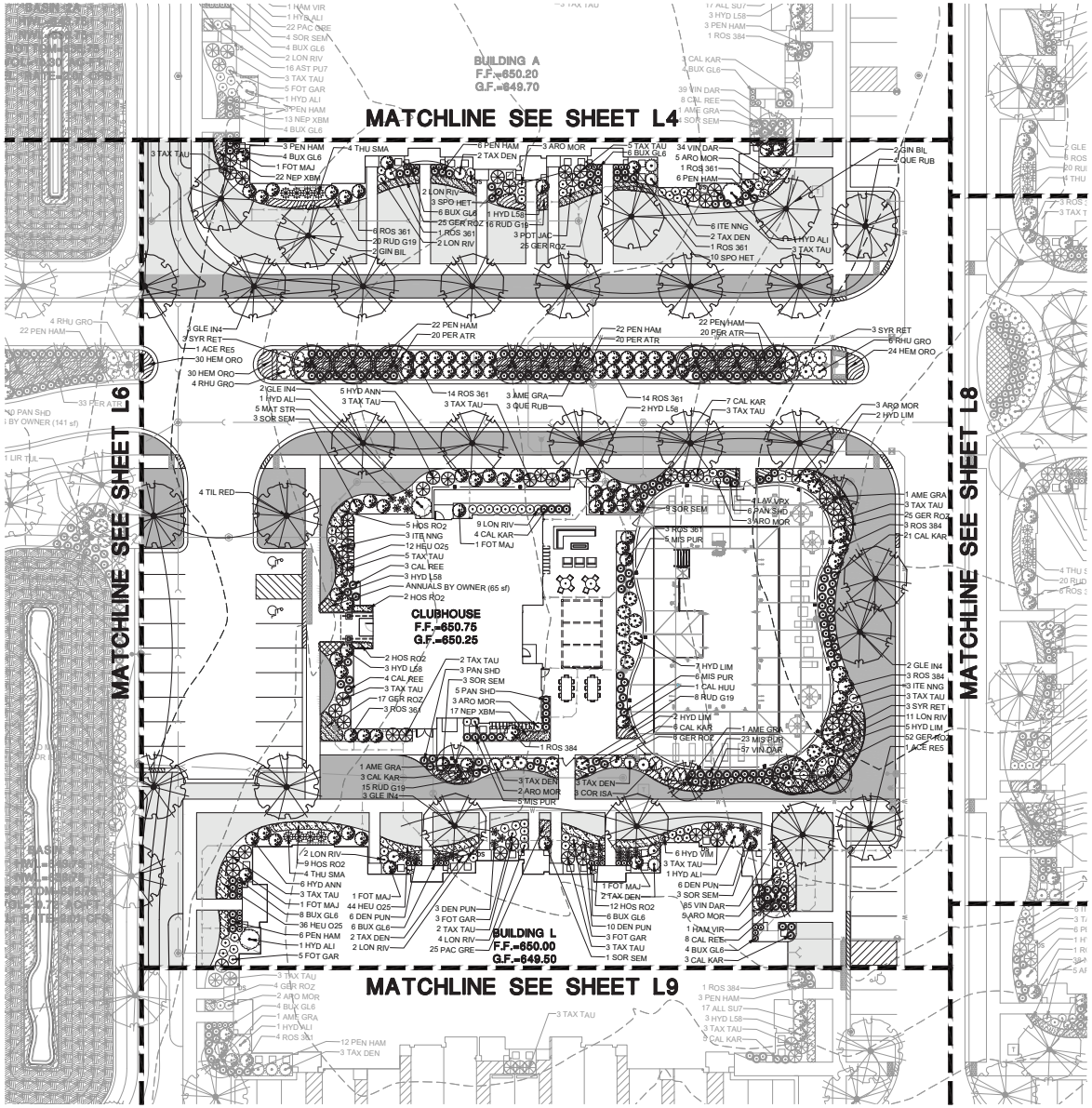
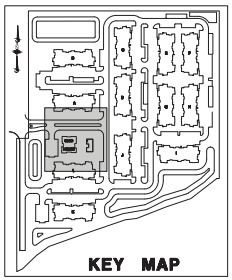
SEASONS AT ROMEOVILLE
VILLAGE OF ROMEOVILLE, ILLINOIS
FINAL LANDSCAPE PLAN

PROJ. MGR.: JGP
PROJ. ASSOC.: MN
DRAWN BY: MN
DATE: 05-01-20
SCALE: 1"=20'

SHEET
L6 OF L14
FRD.RVIL01





SEEDING SCHEDULE

	ECONOMY PRAIRIE SEED MIX See L12 for detail See Engineering Plans for Erosion Control Blanket Plan -	80,498 sf
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	SOD AREA -	

DRAWN BY	REVISIONS	DATE
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MN	06-15-20 REVISED PER VILLAGE COMMENTS	06-15-20

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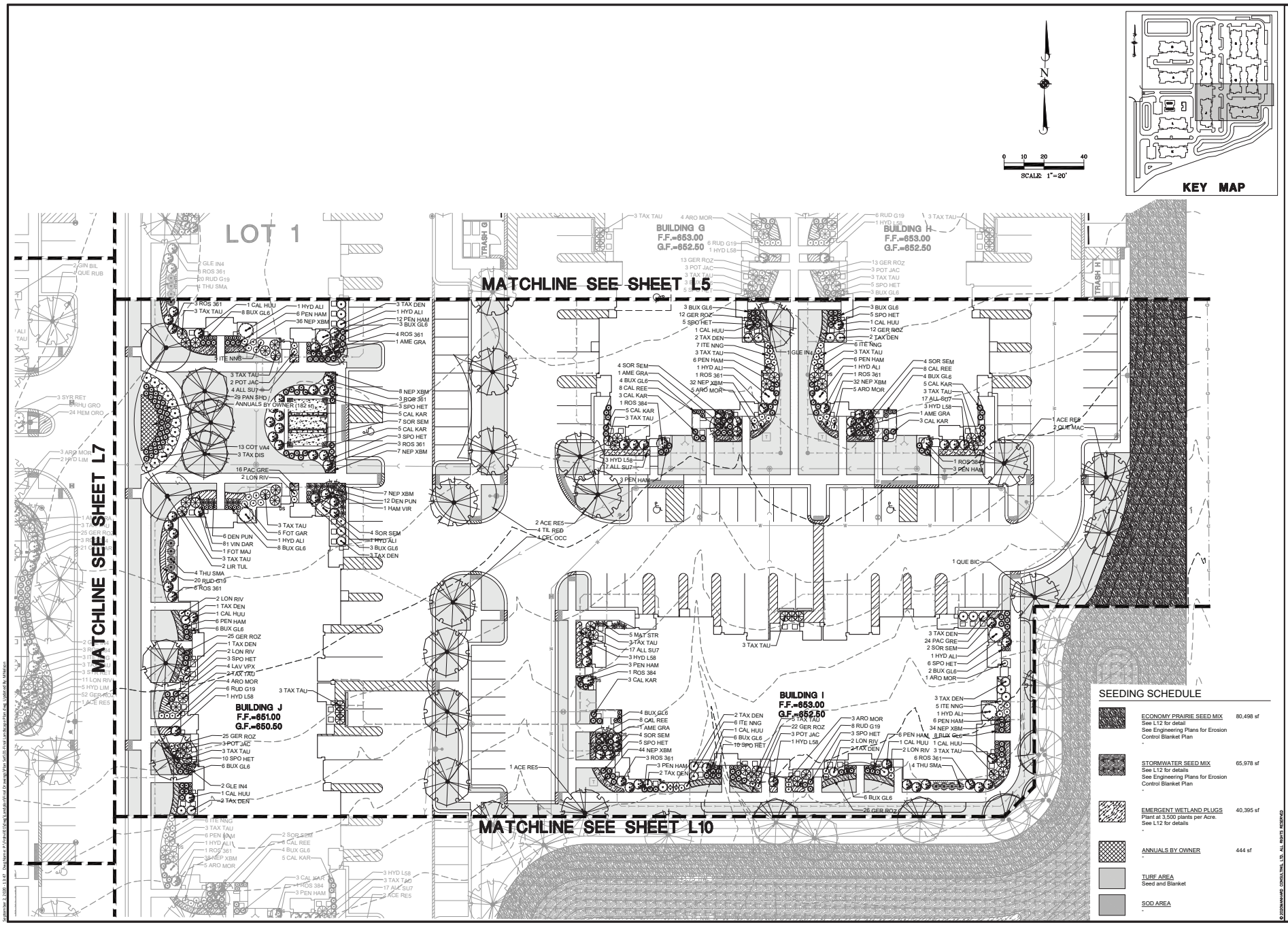
SEASONS AT ROMEOVILLE
VILLAGE OF ROMEOVILLE, ILLINOIS
FINAL LANDSCAPE PLAN

PROJ. MGR.:	JGP
PROJ. ASSOC.:	MN
DRAWN BY:	MN
DATE:	05-01-20
SCALE:	1"=20'

SHEET
L7 OF L14
FRD.RVIL01



SEEDING SCHEDULE

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	SOD AREA	

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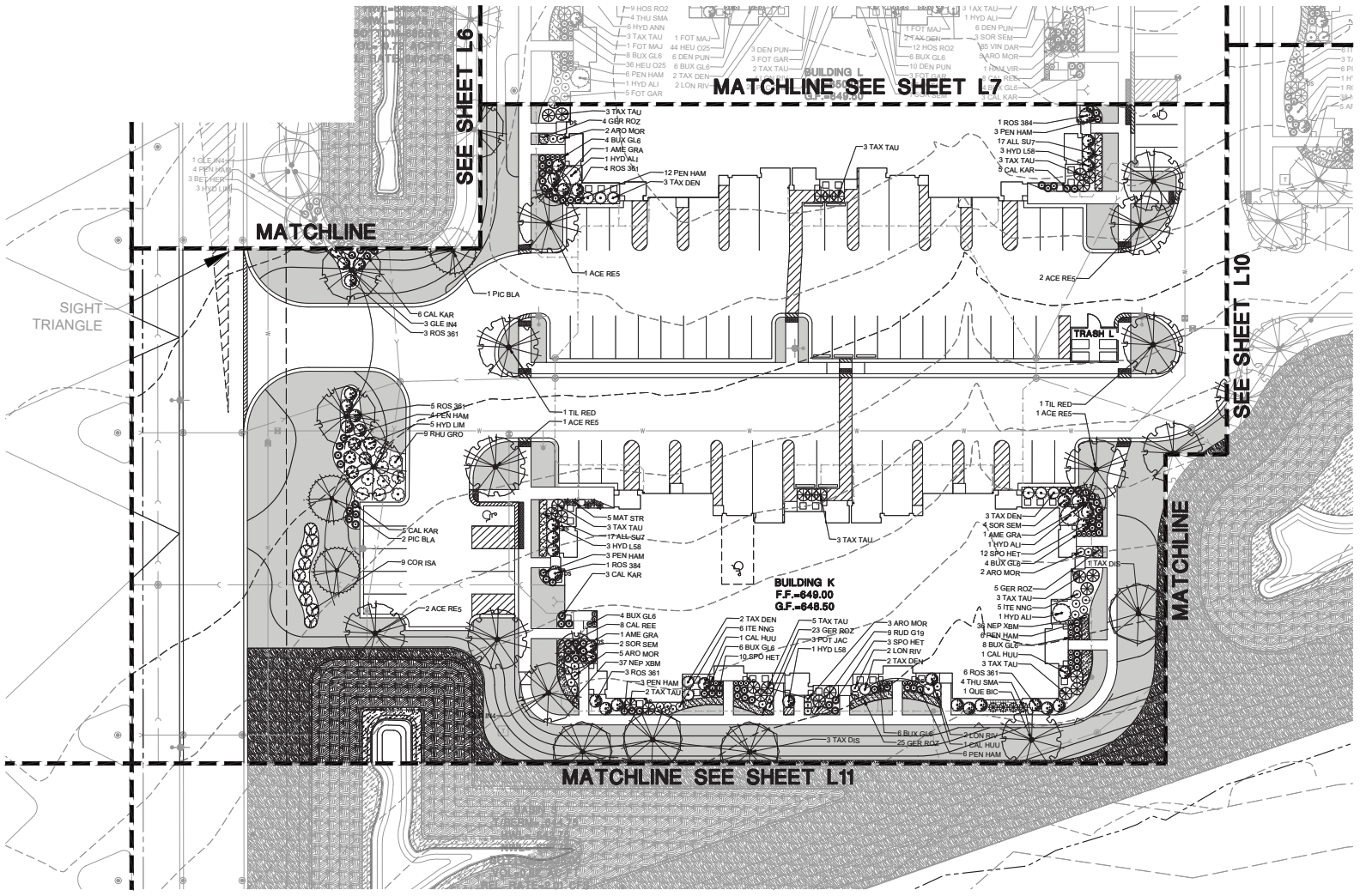
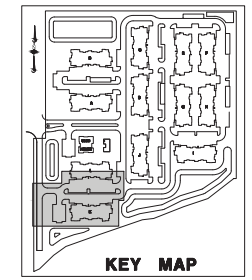
SEASONS AT ROMEOVILLE
VILLAGE OF ROMEOVILLE, ILLINOIS
FINAL LANDSCAPE PLAN

PROJ. MGR.: JGP
PROJ. ASSOC.: MN
DRAWN BY: MN
DATE: 05-01-20
SCALE: 1"=20'

SHEET
L8 OF L14
FRD.RVIL01





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	SOD AREA -	

DRAWN BY		
REVISIONS		
DATE		
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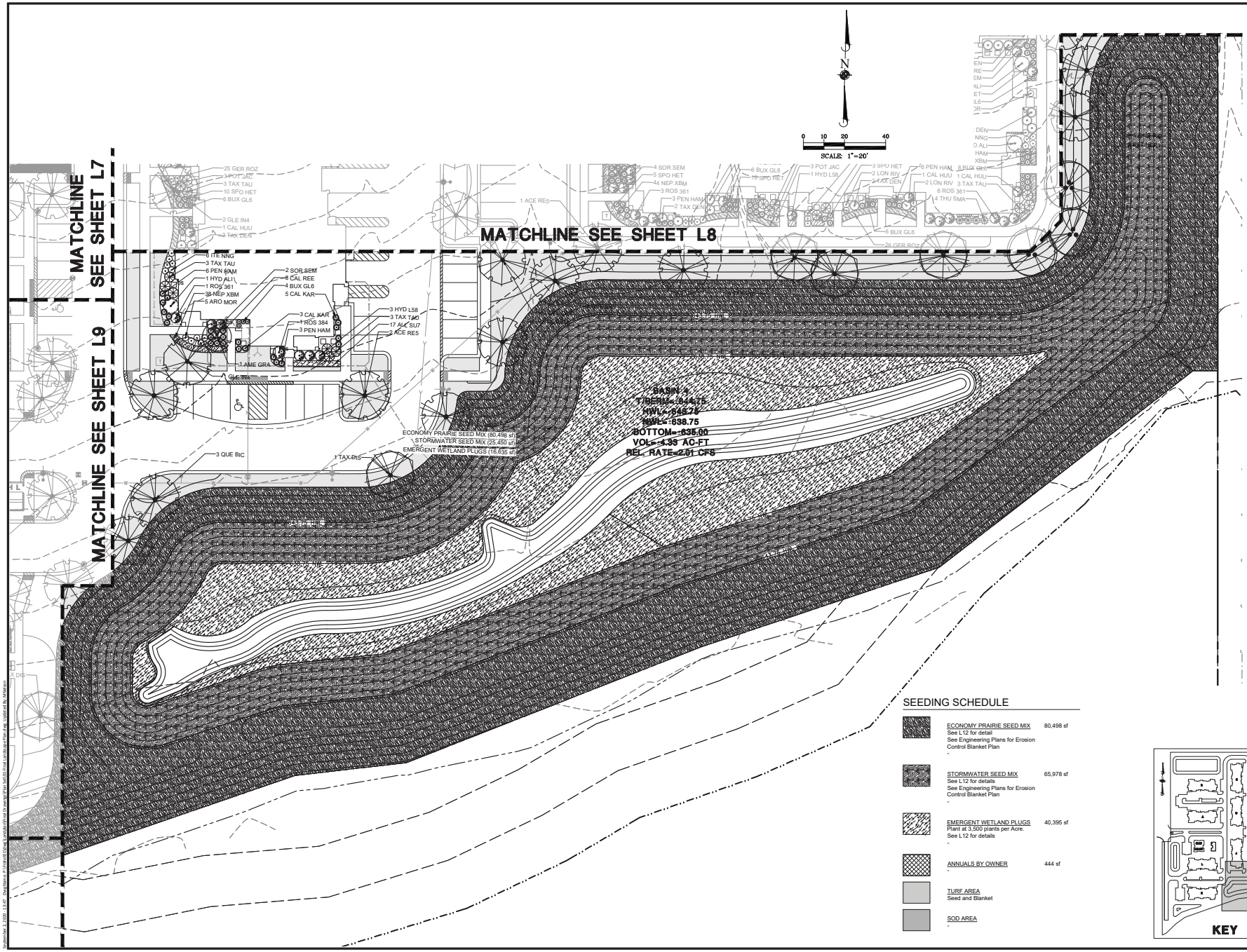
SEASONS AT ROMEOVILLE
VILLAGE OF ROMEOVILLE, ILLINOIS
FINAL LANDSCAPE PLAN

PROJ. MGR.: JGP
PROJ. ASSOC.: MN
DRAWN BY: MN
DATE: 05-01-20
SCALE: 1"=20'

SHEET
L9 OF L14
FRD.RVIL01



DRAWN BY	REVISIONS	DATE
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MN	06-15-20 REVISED PER VILLAGE COMMENTS	06-15-20

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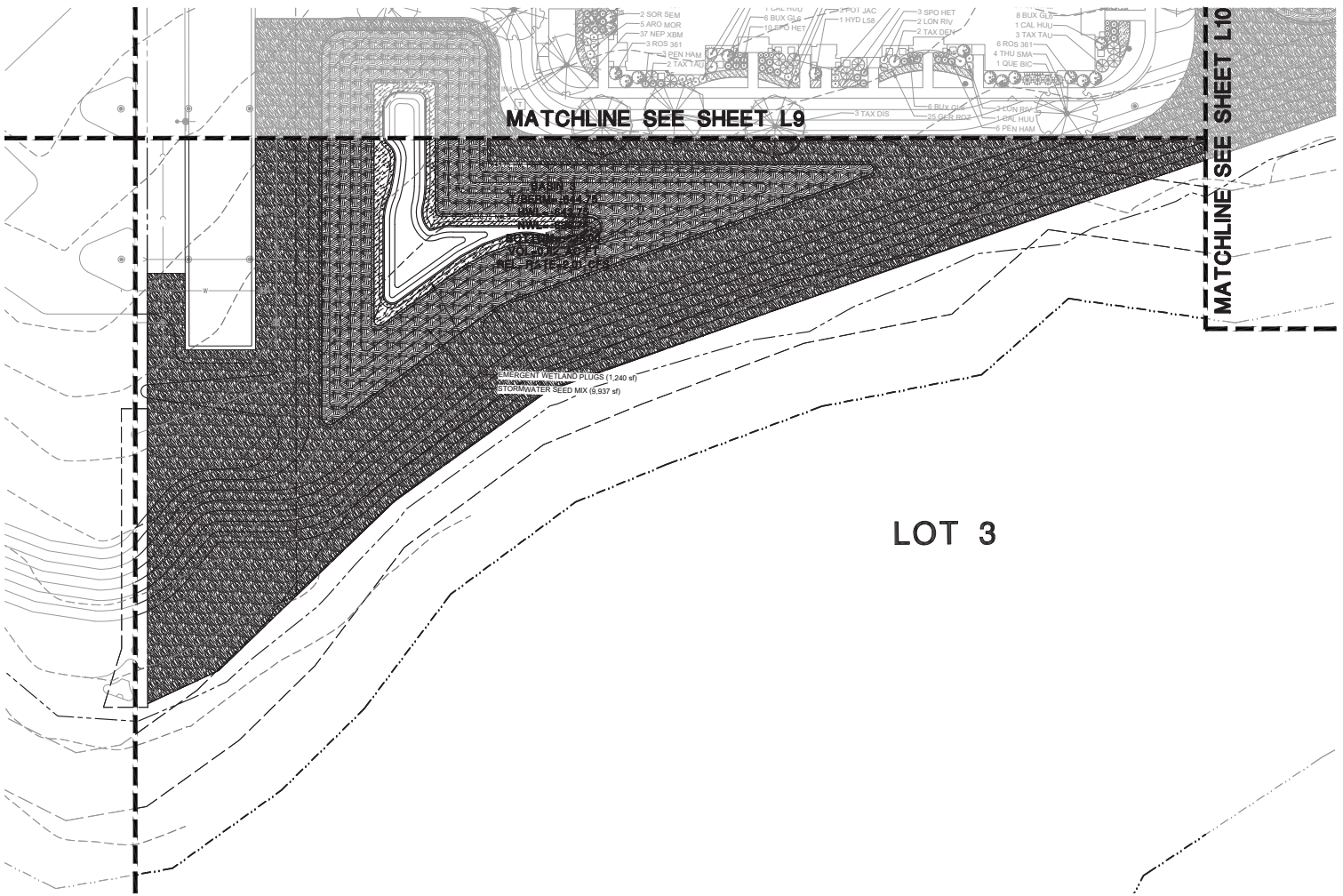
SEASONS AT ROMEOVILLE
VILLAGE OF ROMEOVILLE, ILLINOIS
FINAL LANDSCAPE PLAN

PROJ. MGR.: JGP
PROJ. ASSOC.: MN
DRAWN BY: MN
DATE: 05-01-20
SCALE: 1"=20'

SHEET
L10 OF L14
FRD.RVIL01



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SCALE: 1"=20'

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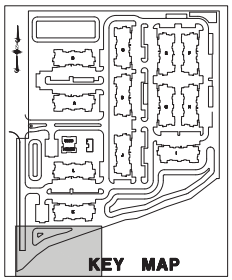

SEEDING SCHEDULE

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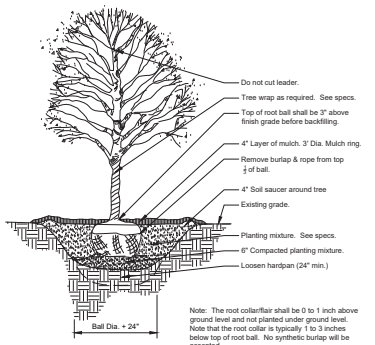
SEASONS AT ROMEOVILLE
VILLAGE OF ROMEOVILLE, ILLINOIS
FINAL LANDSCAPE PLAN

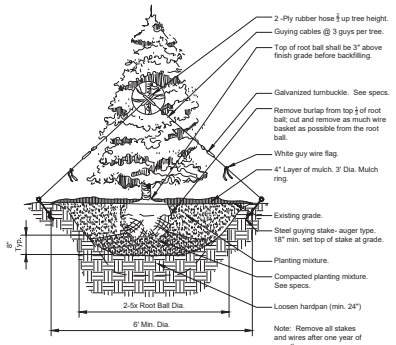
PROJ. MGR.: JGP
PROJ. ASSOC.: MN
DRAWN BY: MN
DATE: 05-01-20
SCALE: 1"=20'

SHEET
L11 OF L14
FRD.RVIL01



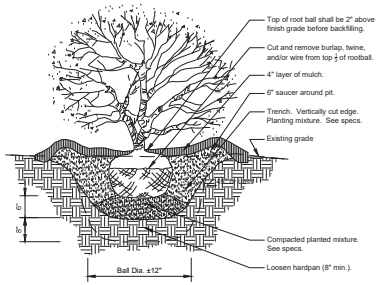
Note: The root collar/flair shall be 0 to 1 inch above ground level and not planted under ground level. Note that the root collar is typically 1 to 3 inches below top of root ball. No synthetic burlap will be accepted.

1 DECIDUOUS TREE PLANTING
1/4" = 1'-0" 32 9343.33-20

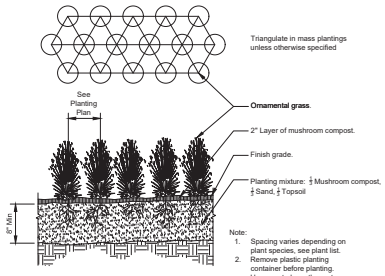


Note: Remove all stakes and wires after one year of growth.

2 CONIFER TREE PLANTING
1/4" = 1'-0" 32 9343.46-01

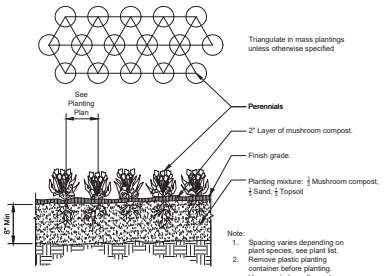


3 SHRUB PLANTING DETAIL
3/4" = 1'-0" 32 9333.16-05



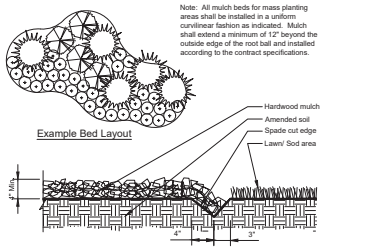
Note:
1. Spacing varies depending on plant species, see plant list.
2. Remove plastic planting container before planting. Use care to keep the root system intact.

4 ORNAMENTAL GRASS PLANTING
1" = 1'-0" 32 9313-01



Note:
1. Spacing varies depending on plant species, see plant list.
2. Remove plastic planting container before planting. Use care to keep the root system intact.

5 PERENNIAL / ANNUAL PLANTING
1" = 1'-0" 32 9313-02



Note: All mulch beds for mass planting areas shall be installed in a uniform curvilinear fashion as indicated. Mulch shall extend a minimum of 12" beyond the outside edge of the root ball and installed according to the contract specifications.

6 CONTINUOUS MULCH EDGING
1" = 1'-0" 32 9113.26-01

Economy Prairie Seed Mix

Application Rate (including cover crop): 50.31 PLS Lbs/AC

Botanical Name	Common Name	Oz/Ac PLS
Permanent Grasses:		
Andropogon gerardii	Big Bluestem	56.00
Bouteloua curtipendula	Side Oats Grama	32.00
Carex brevior	Shorter Sedge	4.00
Carex cristatella	Crested Oval Sedge	2.00
Carex scoparia	Pointed Broom Sedge	2.00
Carex vulpinoidea	Fox Sedge	8.00
Elymus canadensis	Canada Wild Rye	24.00
Panicum virgatum	Switch Grass	16.00
Schizachyrium scoparium	Little Bluestem	32.00
Sorghastrum nutans	Indian Grass	48.00
	Total	**224.00**
Forbs:		
Asclepias syriaca	Common Milkweed	2.00
Asclepias tuberosa	Butterfly Weed	2.00
Chamaecrista fasciculata	Partridge Pea	18.00
Coreopsis lanceolata	Sand Coreopsis	10.00
Echinacea purpurea	Broad-leaved Purple Coneflower	16.00
Heliopsis helianthoides	False Sunflower	4.00
Lupinus perennis	Wild Lupine	4.00
Monarda fistulosa	Wild Bergamot	4.00
Penstemon digitalis	Foxglove Beard Tongue	5.00
Pycnanthemum virginianum	Common Mountain Mint	3.00
Ratibida pinnata	Yellow Coneflower	8.00
Rudbeckia hirta	Black-Eyed Susan	16.00
Solidago speciosa	Showy Goldenrod	3.00
Symphyotrichum laeve	Smooth Blue Aster	2.00
Symphyotrichum novae-angliae	New England Aster	4.00
	Total	**101.00**
Temporary Cover:		
Avena sativa	Common Oat (Spring Planting)	480.00
Triticum aestivum	Winter Wheat (Fall Planting)	(480.00)
	Total	**480.00**
Notes:		
1) For best results install MycoBloom inoculum to above seed mix at 4 oz per 100 lbs of seed, or equal		
2) Install proper erosion control (blanket or heavy hydro-mulching) immediately after installation. See Engineering Plans		

Emergent Wetland Plugs

Install at 3,500 plugs per acre

Botanical Name	Common Name	Plants Per Acre
Permanent Grasses:		
Scirpus acutus	Hard Stem Bulrush	250
Scirpus validus	Great Bulrush	250
Sparganium eurycarpum	Bur Reed	1250
Forbs:		
Acorus americanus	Sweet Flag	250
Pontederia cordata	Pickerelweed	1500

Shoreline Zone Plugs - 2,664 LF

Botanical Name	Common Name	Plants Per Acre
Carex emoryi (Install at NWL elevation- 2' on center)	Riverbank Sedge	1332
Spartina pectinata (Install 1.5 vertical feet above NWL elevation- 2' on center)	Prairie Cord Grass	1332

Stormwater Seed Mix

Application Rate (including cover crop): 62.09 PLS Lbs/AC

Botanical Name	Common Name	Oz/Ac PLS
Permanent Grasses:		
Andropogon scoparius	Little Bluestem	128.00
Bouteloua curtipendula	Side-oats Grama	160.00
Carex bicknellii	Bicknell's Sedge	2.00
Carex brevior	Shorter Sedge	2.00
Carex frankii	Bristly Cattail Sedge	2.00
Carex muehlenbergii	Sand Sedge	4.00
Carex vulpinoidea	Fox Sedge	4.00
Eleocharis erythropoda	Red Rooted Spike Rush	2.00
Elymus canadensis	Canada Wild Rye	48.00
Juncus dudleyi	Dudley's Rush	2.00
Juncus torreyi	Torrey's Rush	2.00
Panicum virgatum	Switch Grass	16.00
Scirpus atrovirens	Dark Green Rush	8.00
Scirpus cyperinus	Wool Grass	1.00
Scirpus validus creber	Great Bulrush	2.00
Spartina pectinata	Prairie Cord Grass	8.00
	Total	**391.00**
Forbs:		
Asclepias incarnata	Swamp Milkweed	2.00
Asclepias tuberosa	Butterfly Weed	4.00
Aster laevis	Smooth Blue Aster	4.00
Aster novae-angliae	New England Aster	4.00
Aster simplex	Panicled Aster	2.00
Astragalus canadensis	Canadian Milk Vetch	4.00
Baptisia leucantha	White Wild Indigo	4.00
Bidens cernua	Nodding Bur Marigold	4.00
Cassia fasciculata	Partridge Pea	4.00
Coreopsis lanceolata	Sand Coreopsis	4.00
Coreopsis palmata	Prairie Coreopsis	4.00
Coreopsis tripteris	Tall Coreopsis	2.00
Echinacea pallida	Purple Coneflower	2.00
Echinacea pupurea	Broad Leaved Purple Conefl.	8.00
Eryngium yuccifolium	Rattlesnake Master	4.00
Helenium autumnale	Sneezeweed	4.00
Heliopsis helianthoides	False Sunflower	2.00
Iris virginica	Blue Flag	2.00
Mimulus ringens	Monkey Flower	0.50
Monarda fistulosa	Wild Bergamot	2.00
Penstemon digitalis	Foxglove Beard Tongue	6.00
Petalostemum purpureum	Purple Prairie Clover	4.00
Ratibida pinnata	Yellow Cone Flower	6.00
Rudbeckia hirta	Black Eyed Susan	4.00
Rudbeckia subtomentosa	Sweet Black Eyed Susan	2.00
Silphium integrifolium	Rosin Weed	2.00
Silphium laciniatum	Compass Plant	4.00
Silphium terbinthinaceum	Prairie Dock	4.00
Solidago rigida	Stiff Goldenrod	2.00
Verbena hastata	Blue Vervain	8.00
Verbena stricta	Hoary Vervain	2.00
Vernonia fasciculata	Common Ironweed	8.00
Zizia aurea	Golden Alexanders	4.00
	Total	**122.50**
Temporary Cover:		
Avena sativa	Common Oat (Spring Planting)	480.00
Triticum aestivum	Winter Wheat (Fall Planting)	(480.00)
	Total	**480.00**
Notes:		
1) For best results install MycoBloom inoculum to above seed mix at 4 oz per 100 lbs of seed, or equal		
2) Install proper erosion control (blanket or heavy hydro-mulching) immediately after installation. See Engineering Plans		

SEE ENGINEERING PLANS FOR EROSION CONTROL BLANKET SPECIFICATIONS AND DETAILS

DRAWN BY	REVISIONS	DATE
MN	09-02-20 REVISED PER VILLAGE COMMENTS	09-02-20
MN	08-04-20 REVISED PER VILLAGE COMMENTS	08-04-20
MN	06-15-20 REVISED PER VILLAGE COMMENTS	06-15-20

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SEASONS AT ROMEOVILLE
VILLAGE OF ROMEOVILLE, ILLINOIS
LANDSCAPE DETAILS

PROJ. MGR: JSP
PROJ. ASSOC.: MN
DRAWN BY: MN
DATE: 05-01-20
SCALE: AS NOTED

SHEET
L12 OF L14
FRD.RVIL01

GENERAL PLANTING SPECIFICATIONS:

PART 1 - GENERAL

1-01 DESCRIPTION:

A. Provide trees, shrubs, perennials and groundcovers as shown and specified. This work includes:
   1. Spreading of topsoil or soil preparation
   2. Trees, shrubs, perennials and groundcovers
   3. Planting mixes
   4. Mulch and planting accessories
   5. Fertilizer and herbicide
   6. Maintenance
   7. Warranty of plant material

B. The Contractor shall verify all existing conditions and dimensions in the field prior to bidding and report any discrepancies to the Owner or his/her representative.

1-02 QUALITY ASSURANCE:

A. Comply with site work requirements

B. Plant names indicated must comply with 'Standardized Plant Names' as adopted by the latest edition of the American Joint Committee of Horticultural Nomenclature. Names of varieties which are not listed should conform with those generally accepted by the nursery trade. Stock should be legibly tagged.

C. All plant materials shall conform to the 'American Standards for Nursery Stock' (ASNS), latest edition, published by the American Association of Nurserymen, Washington, D.C.

D. All plant material shall be grown and supplied within a 50 mile radius of the project for a minimum of two full growing seasons.

E. Adhere to sizing requirements as listed in the plant list and/or bid form for the project. A plant shall be measured in its natural standing position.

F. Stock that is furnished shall be at least the minimum size shown. With permission of the landscape architect, substitution from the specified plant list will be accepted only when satisfactory evidence in writing is submitted to the landscape architect, showing that the plant specified is not available. Requests for approval of substitute plant material shall include common and botanical names and size of substitute material. Only those substitutions of at least equivalent size and character to that of the specified material will be approved. Stock which is larger than that which is specified is acceptable with permission of the landscape architect, providing there is no additional cost and that the larger plant material will not be cut down in order to conform to the size indicated.

G. All shrubs shall be dense in form. Shrub liners do not meet these specifications. Shrubs specified by height shall have a spread that is equal to the height measurement. Shrubs which are specified by spread shall exhibit the natural growth habit of the plant by having a greater spread than height.

H. All plant materials are subject to inspection and approval. The landscape architect and Owner reserve the right to select and tag all plant material at the nursery prior to planting. The landscape architect and Owner reserve the right to inspect plant material for size and condition of root systems, the presence of insects and diseases, injuries and latent defects (due to Contractor negligence or otherwise), and to reject unacceptable plant material at any time during progress of the project.

I. Container grown deciduous and/or evergreen shrubs will be acceptable in lieu of balled and burlapped shrubs subject to specified limitations for container grown stock. Size of container grown material must conform to size/height requirements of plant list.

1-03 DELIVERY, STORAGE & HANDLING:

A. Fertilizer shall be delivered in original, unopened and undamaged packaging. Containers shall display weight, analysis and manufacturer's name. Store fertilizer in a manner that will prevent wetting and deterioration.

B. Take all precautions customary concerning proper trade practice in preparing plants for transport. Plants shall be dug, packed and transported 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 landscape architect . All plants must be protected from drying out. If plant material cannot be planted immediately upon delivery, said material should be properly protected in a manner that is acceptable to the landscape architect . Heeled-in plants must be watered daily. No plant shall be bound with rope or wire in a manner that could strip bark or break or shear branches.

C. Plant material transported on open vehicles should be covered with a protective covering to prevent wind burn.

D. Dry, loose topsoil shall be provided for planting bed mixes. Muddy or frozen topsoil is unacceptable as working with medium in this condition will destroy its structure, making root development more difficult.

1-04 PROJECT CONDITIONS:

A. Notify landscape architect at least seven (7) working days prior to installation of plant material.

B. It shall be the Contractor's responsibility to locate and protect all existing above and below ground utilities. Utilities can be located and marked (in Illinois) by calling J.U.L.I.E. at (800)892-0123.

C. The Contractor shall provide, at his/her own expense, protection against trespassing and damage to seeded areas, planted areas, and other construction areas until the preliminary acceptance. The Contractor shall provide barricades, temporary fencing, signs, and written warning or policing as may be required to protect such areas. The Contractor shall not be responsible for any damage caused by the Owner after such warning has been issued.

D. The Contractor shall be responsible for the protection of crowns, trunks and roots of existing trees, plus shrubs, lawns, paved areas and other landscaped areas that are to remain intact. Existing trees, which may be subject to construction damage, shall be boxed, fenced or otherwise protected before any work is started. The Owner desires to preserve those trees within and adjacent to the limits of construction except those specifically indicated to be removed on the Drawings. The contractor shall erect protective tree fencing and tree armor at locations indicated on the drawings and around all trees on site which are to be preserved. Protective fencing shall be erected between the limits of construction and any tree preservation areas shown on the Drawings.

E. A complete list of plants including a schedule of sizes, quantities and other requirements is shown on the Drawings and on the bid form. In the event that quantity discrepancies or material omissions occur in the plant materials list, the planting plans shall govern.

1-05 PRELIMINARY ACCEPTANCE:

A. All plantings shall be maintained by the Contractor for a period of 90 days after preliminary acceptance by the Owner or his/her representative. Maintenance shall include, but is not limited to: mowing and edging turf, pulling weeds, watering turf and plant material and annual flower maintenance.

1-06 WARRANTY:

A. All plant material (excluding annual color), shall be warranteed for one (1) year after the end of the 90 day maintenance period. The end of the maintenance period is marked by the final acceptance of the Contractor's work by the Owner or his/her representative. Plant materials will be warranteed against defects including death and unsatisfactory growth, except for defects resulting from abuse or damage by others, or unusual phenomena or incidents which are beyond the control of the Contractor. The warranty covers a maximum of one replacement per item.

PART 2 - PRODUCTS

2-01 PLANT MATERIALS:

A. Plants: Provide typical of their species or variety, with normal, densely developed branches and vigorous, fibrous root systems. Only sound, healthy, vigorous plants which are free from sunscald injuries, disfiguring knots, frost cracks, abrasions of the bark, plant diseases, insect eggs, borers, and all forms of infestation shall be provided. All plants shall have a fully developed form without voids and open patches.
   1. Balled and burlapped plants shall have a firm natural ball of earth of sufficient diameter and depth to encompass a root system necessary for a full recovery of the plant. Root ball sizes shall comply with the latest edition of the 'American Standards for Nursery Stock' (ASNS). Root balls that are cracked or mushroomed are unacceptable.
   2. Container grown stock should be grown for an amount of time that is of sufficient length for the root system to have developed enough to hold its soil togehter, firm and whole. Plants will not be loose in their containers, nor shall they be pot-bound and all container grown stock will comply with the sizes stated on the plant list.
   3. No evidence of wounds or pruning cuts shall be allowed unless approved by the Landscape Architect.
   4. Evergreen trees shall be branched to the ground. The height of evergreen trees are determined by measuring from the ground to the first lateral branch closest to the top. Height and/or width of other trees are measured by the mass of the plant not the very tip of the branches.
   5. Shrubs and small plants shall meet the requirements for spread and/or height indicated in the plant list. The height measurement shall be taken from ground level to the average height of the top of the plant, not the longest branch. Single stem or thin plants will not be accepted. Side branches shall be flushed with growth and have good form to the ground. Plants shall be in a moist, vigorous condition, free from dead wood, bruises or other root or branch injuries.

2-02 ACCESSORIES:

A. Topsoil:
   1. Topsoil shall be fertile, natural topsoil of a loamy character, without admixture of subsoil material. Topsoil shall be reasonably free from clay, lumps, coarse sand, stones, plants, roots, sticks and other foreign materials with a pH between 6.5 to 7.0.

B. Topsoil for seed areas shall be a minimum of 6". Naturalized Basin areas shall be a minimum of 18" (per ordinance requirements)

C. Soil amendments shall be as follows:
   1. For trees and shrubs the plant pit will be backfilled with pulverized black dirt.
   2. For perennials and ornamental grasses the soil mixture will be as follows: CM-63 General Purpose Peat Based Mix as supplied by Midwest Trading. Top beds with 8" of CM-63 and till into existing beds to a depth of 8", Soil mixtures are available from Midwest Trading. Midwest Trading, St. Charles, IL 60174 (630) 365-1990

D. Fertilizer:
   1. For trees and shrubs use: 14-4-6 briquettes 17 g or equivalent available from Arthur Clesen, Inc. Follow manufacturer's recommendation for application. Arthur Clesen, Inc. 543 Diens Drive, Wheeling, IL 60090 (847)537-2177
   2. For turf areas use 6-24-16 Clesen Fairway with micronutrients with minor elements 3.0 % S, .02% B, .05% Cu, 1.0% Fe, .0006% Mo, .10% Mn available from Arthur Clesen or approved equal.

E. Herbicide:
   1. Round-Up or approved equal

F. Mulch:
   1. Bark mulch (Died Dark Brown) shall be finely shredded hardwood bark which has been screened and is free of any green foliage, twigs, rocks, sawdust, wood shavings, growth or germination inhibiting ingredients, or other foreign materials. Bark mulch is available from Midwest Trading.
   2. Mushroom compost as available from Midwest Trading.

G. Water:
   1. Water service will be available on the site, with the cost of water being paid by the Owner. Transporting of the water from the source to the work areas shall be the responsibility of the Landscape Contractor. All necessary hose, piping, tank truck, etc. shall be supplied by the Landscape Contractor.

H. Guying:
   1. Stakes: 5/8" x 40" steel eye anchor with 4" helix
   2. Cable:
      a. Trees under 5": flexible 1/8" galvanized aircraft cable, 7x7 strand or approved equal
      b. Trees 5" and over: flexible 3/16" galvanized aircraft cable, 7x7 strand or approved equal.
   3. Turnbuckles: 5/16", eye and eye, with 4" takeup.
   4. Hose: new two-ply reinforced rubber hose, minimum 1/2" I.D.

I. Tree wrap: Burlap tree wrap 4" wide.

J. Twine: Soft nursery jute.

PART 3 - INSTALLATION OF PLANT MATERIAL

3-01 FIELD VERIFICATION:

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

3-02 PREPARATION:

A. All planting techniques and methods shall be consistent with the latest edition of 'Horticulture Standards of Nurserymen, Inc.' and as detailed on these Drawings.

B. Planting shall be performed by experienced workmen familiar with planting procedures under the supervision of a qualified supervisor.

C. All underground utilities must be located and marked clearly.

D. Apply Round-Up or approved equivalent to kill any existing vegetation in all areas to be planted. Confirm length of waiting period between chemical application and plant installation with manufacturer. Do not begin planting operations until prescribed post-application waiting period has elapsed. Take extreme care to avoid chemical drift to adjoining properties of landscape plantings.

E. Prior to all planting, rototill all areas to be landscaped to prepare for plant installation to a minimum depth of 12". Eliminate uneven areas and low spots. Maintain lines, levels, profiles and contour. Changes in grade are to be gradual. Blend slopes into level areas. Remove all debris, weeds and undesirable plants and their roots from areas to be planted. Remove all concrete slag larger than 2" in diameter.

F. Topsoil shall be spread over the site at a minimum depth of 6". Those areas which are indicated as prairie or natural areas on the Drawings shall have a minimum topsoil depth of 18".

G. It shall be the responsibility of the landscape contractor to prepare all seeded areas by disking and raking prior to planting seed. Soil shall be loosened and scarified to a minimum depth of 6". Fine grading of all seeded areas is required. Maximum size of stone or topsoil lump is 1".

H. Locate all plant material as indicated or as approved in the field by the Landscape Architect. If obstructions are encountered which are not shown on the drawings, then do not proceed with planting operations until alternate plant locations have been selected.

I. Planting holes shall be constructed as shown on the planting details. Holes shall be hand dug or machine dug. Great care will be taken to not excavate the hole deeper than the root ball and the diameter shall be a minimum of two times the root ball width. Remove any materials encountered in excavation that may be injurious to plant growth, including stones larger than 2" in diameter or other debris. Soil to be used as backfill should be pulverized.

J. Provide pre-mixed planting mixture for use around root systems and root balls of the plants. The mixtures are outlined in section B of part 2-02.

K. Prior to planting, provide additional topsoil to all planting beds to bring the finish grade of the bed to 2" above lawn grade and to finish grade of adjacent hard surface grades.

L. Add 2" thickness of mushroom compost to all annual, perennial and groundcover beds. Finish grade bed and install plants.

3-03 PLANTING PROCEDURES:

A. Set plant material in the planting hole to proper grade and alignment. Set plants upright and plumb. Set plant material 2" above the adjacent finish grade. Remove burlap from top 1/3 of root ball. Remove treated burlap (green). Cut and remove or cut and fold down upper half of wire basket, dependent upon tree size. Backfill hole by firmly tamping soil to avoid any air pockets or voids.

B. Set balled and burlapped plants in the planting hole and compact 8" of soil around the base of the ball. Backfill remaining space with planting mixture. Water plants immediately after planting to eliminate all voids and thoroughly soak the plant root ball.

C. Space groundcover plants according to dimensions given on the plans. Adjust spacing as necessary to evenly fill planting bed with indicated number of plants. Plant to within 18" of the trunks of trees and shrubs or at the edge of the plant ball, whichever is closest. Plant to within 12" of edge of bed.

D. Mulching:
   1. Install 4" depth of mulch around all tree and shrub beds as indicated on drawings or planting details. Mulch shrub planting areas as continuous beds. Do not place mulch directly against tree trunk; form mulch to create an inverted cone around trunk.
   2. Mulch perennial, groundcover and annual planting beds with 2" mushroom compost. Water mulched areas thoroughly after placing mulch.

E. Tree wrapping is not required, unless the Contractor feels it is necessary due to characteristics of a particular species or past experience with the species. The landscape architect will be notified as to which trees are to be wrapped and shall inspect the trunk(s) before wrapping. Tree wrap will not be used to cover damage or defects. When wrapping is done, trunks will be wrapped spirally with approved tree wrapping tape that is not less than 4" wide, and securely tied with suitable cord at the top, bottom and 2" intervals along the trunk. Wrap from ground to the height of the first branch.

F. Staking and guying of trees is optional. If the Contractor chooses to stake all or part of the trees, he/she shall use the method specified in the planting details. One (1) stake is to be used on trees of 1" caliper and under, or 4' height and under. Two (2) stakes are to be used on trees of 1" to 2 3/4" caliper. Guy trees of 3" caliper or larger at three (3) per tree. The root ball will not be pierced with a stake. Stakes are to be driven at least eighteen (18) inches into subsoil below the planting hole. Stakes and wire attachments shall be removed after three months for spring planted material and by the following May for fall planted stock by the Contractor. Staking and guying should be done immediately after lawn seeding or sodding operations.

G. Seeding of specified lawn areas on plans will be treated as follows:
   1. Topsoil shall be spread over all areas to be seeded to a minimum depth of 6" when compacted (to be performed by others).
   2. Seed mixture and application rate - use Premium seed mix as supplied by Arthur Clesen, Inc. Apply at a rate of 5 lbs./1000 s.f.
   3. Apply fertilizers and conditioners at the rate specified per soil test findings. In lieu of soil test results, apply two (2) tons of ground agricultural limestone and 1000 lbs. 10-10-10 or equivalent analysis fertilizer per acre. At least 40% of the fertilizer nitrogen shall be of an organic origin.
   4. Soil preparation areas where vehicular traffic has compacted the soil shall be loosened/scarified to a minimum depth of 6" before fertilizing and seeding. Fine grading of all seeded areas is required. Maximum size of stone or topsoil lump is 1".
   5. Watering seeded areas shall be done to ensure proper germination. Once seeds have germinated, watering may be decreased but the seedlings must never be allowed to dry out completely. Frequent watering should be continued approximately four (4) weeks after germination or until grass has become sufficiently established to warrant watering on an 'as needed' basis.
   6. Turf is being established on a variety of slope conditions. It shall be the Contractor's responsibility to determine and implement whatever procedures he/she deems necessary to establish the turf as part of his/her work. Seeded areas will be accepted when all areas show a uniform stand of the specified grass in healthy condition and at least 90 days have elapsed since the completion of this work. The Contractor shall submit with his/her bid a description of the methods and procedures he/she intends to use.

H. Erosion Control Blanket
   1. Erosion Control Blanket shall be installed per manufacturer's recommendation in all areas shown on the plan.
   2. Install S-75-BN Erosion Control Blanket as manufactured by North American Green or approved equal.
   3. Blanket should be premarked with staple paltern.
   4. Staples should be 8" wire staples, applied at two (2) per square yard minimum.
   5. Suitable erosion control practices shall be maintained by the CONTRACTOR in accordance with Illinois Urban Manual and all applicable Soil Erosion and Sedimentation Control ordinances and the PLANS.

I. Sodding of specified lawn areas on plans will be completed as follows:
   1. Rake soil surface to receive sod to completely remove any soil crust no more than one day prior to laying sod.
   2. Moisten prepared surface immediately prior to laying sod. Water thoroughly and allow surface moisture to dry before planting lawns. Do not create a muddy soil condition.
   3. Sod shall be laid within 24 hours from the time of stripping. Do not plant dormant sod or if the ground is frozen.
   4. Lay sod to form a solid mass with tightly fitted joints. Butt ends and sides of sod strips; do not overlap. Stagger strips to offset joints in adjacent courses. Work from boards to avoid damage to subgrade or sod. Work sifted soil into minor cracks between pieces of sod; remove excess to avoid smothering of adjacent sod.
   5. Place top elevation of sod 1/2 inch below adjoining edging or paving.
   6. Water sod thoroughly with a fine spray immediately after planting.
   7. After sod and soil have dried, roll seeded areas to ensure a good bond between the sod and soil, and to remove minor depressions and irregularities.
   8. Sodded slopes 3:1 or greater shall be staked to prevent erosion and washout.
   9. Warranty sodding for a period of one (1) year from the end of the 90 day maintenance period. If sod fails or lacks vigor and full growth as determined by the Landscape Architect, the Contractor will repeat site preparation operations and re-sod affected areas at the Contractor's expense.
   10. Note: Sod shall be a premium Kentucky Bluegrass blend, and is required in all areas indicated on the plans as well as areas which have been affected by construction. Sod can be placed as long as water is available and the ground surface can be properly prepared. Sod shall not be laid on frozen or snow-covered ground. Sod shall be strongly rooted, not less than two (2) years old and free of weeds and undesirable native grasses. Sod should be machine cut to pad thickness of 3/4" (plus or minus 1/4"), excluding top growth and thatch. Provide only sod capable of vigorous growth and development when planted (viable, not dormant). Provide sod of uniform pad sizes with maximum 5% deviation in either length or width. Broken pads or pads with uneven ends will not be acceptable. Sod pads incapable of supporting their own weight when suspended vertically with a firm grasp on the upper 10% of pad will not be accepted.

J. Timing of plant material and seeding operations:
   1. Seeding of specified areas shall occur when the soil temperature is above 55° F. No seed shall be sown during periods of high winds, or when the ground is not in proper condition for seeding (see section 3-02 (G)). Seeding operations for the specified mixes shall occur in the spring time frame of April 15 through June 30 and in the summer time frame of August 15 through December 1. The mixes containing bluegrass and fescue seed must have six weeks to harden off for winter survival.
   2. Sod shall be installed when the ground is not frozen or snow covered and temperatures are less than 80° F. It shall not be placed during a period of extended drought.
   3. Herbaceous ornamental plants shall be planted between May 1 and June 15 or between August 15 and December 1.
   4. Spring planting of woody ornamental plants shall be performed from the time the soil can be easily worked until June 1, except that evergreen planting shall end on May 15. Oak, hawthorn and red maple species will only be planted during this spring planting period. Fall planting will begin August 15 and will continue until the ground cannot be worked satisfactorily, except that evergreen planting shall be performed between August 15 and December 1.

3-04 MAINTENANCE:

A. All plantings shall be maintained by the Contractor for a period of 90 days after preliminary acceptance by the Owner or his/her representative. Maintenance shall include but is not limited to: mowing and edging turf, pulling weeds, watering turf areas and plant material plus annual flower maintenance. The Contractor will reset settled plants to proper grade and position. Dead material will be removed. Stakes and guy wires will be tightened and repaired as required.

3-04 ACCEPTANCE:

A. All plant material (excluding annual color), shall be warranteed for one (1) year after the end of the 90 day maintenance period. The end of the maintenance period is marked by the final acceptance of the Contractor's work by the Owner or his/her representative.

3-06 SITE CLEAN-UP:

A. The Contractor shall protect the property of the Owner and the work of other contractors. The Contractor shall also be directly responsible for all damage caused by the activities and for the daily removal of all trash and debris from his/her work area to the satisfaction of the landscape architect .

DRAWN BY	REVISIONS	DATE
MN	REVISED PER VILLAGE COMMENTS	09-02-20
MN	REVISED PER VILLAGE COMMENTS	08-04-20
MN	REVISED PER VILLAGE COMMENTS	06-15-20

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Construction Managers | Environmental Scientists | Landscape Architects | Planners

SEASONS AT ROMEOVILLE
VILLAGE OF ROMEOVILLE, ILLINOIS
LANDSCAPE SPECIFICATIONS

PROJ. MGR.: JGP
PROJ. ASSOC.: MN
DRAWN BY: MN
DATE: 05-01-20
SCALE: NTS

SHEET
L13 OF L14
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NATIVE PLANTING SPECIFICATIONS:

PART 1 - NATIVE SEEDING SPECIFICATIONS
(ECONOMY PRAIRIE SEED MIX AND STORMWATER SEED MIX)

1-01 PRE-SEEDING WEED CONTROL:

A. The prairie areas shall be free of any actively growing vegetation prior to plant installation. CONTRACTOR shall conduct the necessary pre-seeding weed control to ensure that the planting zone is free of any actively growing vegetation. Seeding shall not be authorized if the prairie zone has any actively growing vegetation

1-02 SEED BED PREPARATION:

A. The CONTRACTOR shall remove stones, roots, and sticks prior to seedbed preparation activities.

B. The CONTRACTOR shall prepare the seedbed with a unique rake or harrow to create a smooth and level seedbed. The seedbed preparation activities shall reduce clod size to a maximum diameter of 2-inches and eliminate rivulets, gullies, crusting, and caking. Working wet soils shall not be conducted. Following these seedbed preparation activities, the ground surface shall have minimum compaction, be smooth and level, and be free of debris to promote good seed-soil contact.

1-03 SEEDING SPECIFICATIONS:

A. The CONTRACTOR shall furnish, transport, and install the Economy Prairie Seed Mix in the areas shown on the planting plan.

B. If plugs are also specified in the seeding area (i.e., Shoreline Zone Plug Mix), seed shall be installed first followed by erosion blanket installation. Plug installation shall be conducted last, after the seed and blanket has been installed.

C. Prairie seeding activities shall be performed after the seedbed has been properly prepared and prior to any plug installation specified. Spring seeding shall occur between April 15th and June 15th. Fall dormant seeding shall be conducted no earlier than November 1 an dafter the first frost and until snow depth exceeds 1 inch.

D. The CONTRACTOR shall notify THE OWNER AND/OR THE OWNER'S AGENT 24 hours prior to seeding.

E. The seed mix installation shall be performed using a native seed drill and tractor mounted broadcast spreader. The seeding shall he conducted in the following manner with the drill installation conducted before the broadcast installation:

- All of the seed oats, seventy-five percent (75%) by weight of the native grasses and twenty-five percent (25%) by weight of the forbs shall be installed, with a native seed drill. The grasses and oats shall be buried to a 1/8-inch depth.
- Following drill seeding, the remaining twenty-five percent (25%) of the grasses and seventy-five percent (75%) or the forbs shall be surface sown with a tractor mounted broadcast seeder. Additional oats can be added during the broadcast seeding if needed to improve metering of the seed mix.

F. If the seeding area is too small or wet for a tractor, seed installation shall be hydro-seeded using a hydraulic seeder. The seed shall he installed with water only. Hydromulch shall not be mixed with the seed during the seed installation. Approval from THE OWNER AND/OR THE OWNER'S AGENT is required prior to any hydraulic seeding.

G. All native species shall be local genotype and origin shall be from a radius not to exceed 200 miles from the site. Proof of origin shall be presented to the THE OWNER AND/OR THE OWNER 'S AGENT at the site prior to any seeding application. Seed mixes shall be supplied in pounds of Pure Live Seed (PLS). Purity and germination tests no older than twelve months must be submitted for all seed supplied to verify quantities of bulk seed required to achieve the pounds of Pure Live Seed specified. All species (grasses, sedge, and forbs) will be supplied at 100% PLS. Seed not compliant with PLS requirements will be augmented with additional quantities in order to compensate for lack of viability and achieve specified amounts of PLS. Seeds shall be true to name and variety and have the proper stratification and/ or scarification to break dormancy for the appropriate planting season.

H. The CONTRACTOR shall examine the grade, verify the elevations and water levels, observe the conditions under which work is to be performed, and notify THE OWNER AND/OR THE OWNER'S AGENT of unsatisfactory conditions. Proceeding with the work constitutes acceptance of existing conditions, including current water levels and soil condition.

I. The CONTRACTOR shall furnish seeds of specified local origin, hardy under the climatic conditions at the project site, free from insects and diseases, and having the appearance of health, vigor, and habit normal for the species. Comply with applicable state and federal laws regarding inspections. All regulations applicable to the seed mix and landscape materials shall he followed.

J. Seed shall not be sown during high winds or when the seedbed is not in the proper condition for seeding. Prior to starting work, calibrate all seeding equipment and adjust to sow seed at the proper seeding rate. Operate equipment to ensure complete coverage of the entire area to be seeded.

K. Prior to installation. THE OWNER AND/OR THE OWNER'S AGENT shall review any species substitutions and reserves the authority to deny use of any species if deemed inappropriate for the site.

L. All seed materials shall be subject to inspection by THE OWNER AND/OR THE OWNER'S AGENT prior to installation.

M. The CONTRACTOR shall provide THE OWNER AND/OR THE OWNER'S AGENT copies of all seed labels.

N. Seeding shall only occur in areas that will receive blanket installation within 24 hours of seeding provided rain is not imminent. If rain is imminent, blanket installation shall occur on the same day as seeding.

1-04 EROSION CONTROL BLANKET INSTALLATION:

A. North American Green S-75-BN and SC-150-BN, or equivalents, shall be installed in the prairie seeding areas following seeding. One row of the SC-150-BN shall be installed around the Naturalized Basin shoreline to protect the toe of the slope. The S-75-BN shall be installed in the remaining native seeding areas. The blankets shall be properly installed with staples following the manufacturer's specifications. Refer to the Civil Engineering Plans for further detail.

PART 2 -CONTAINER PLANTING SPECIFICATIONS
(EMERGENT WETLAND PLUGS AND SHORELINE ZONE PLUGS)

2-01 PRE-PLANTING WEED CONTROL:

A. The bottom of the basin shall be free of any actively growing problematic species prior to plant installation. These problematic species include, but are not limited to: cattail (Typha spp.), common reed (Phragmites australis), purple loosestrife (Lythrum salicaria), and reed canary grass (Phalaris arundinacea). CONTRACTOR shall conduct the necessary pre-planting weed control to ensure that the planting zone is free of these species. Planting shall not be authorized if any of these species are actively growing in the basin.

2-02 PLANTING SPECIFICATIONS:

A. The CONTRACTOR shall furnish, transport, and install the container plants in the areas as shown per the details provided on the Plan Sheets.

B. Planting activities shall be performed between May I and July 1.

C. The CONTRACTOR shall notify THE OWNER AND/OR THE OWNER'S AGENT 24 hours prior to planting.

D. All plant plugs shall be container grown in open bottom pots and have minimum shoot heights of 12 inches at the time or planting. Pot dimensions shall be a minimum of 2-inches wide and 3-inches deep for each plug. Smaller pots arc not acceptable. Soil saturation shall be maintained for all container plants until instillation. Plant material shall not be provided as dormant root or bare root material except for lilies.

E. All container plant material shall be inoculated with mycorrhizal fungi.

F. Container plants shall exhibit root growth sufficient to hold all soil intact when removed from container.

G. The CONTRACTOR shall water all plugs throughout the first growing season as necessary to achieve the performance criteria specified below.

H. THE OWNER AND/OR THE OWNER'S AGENT shall approve all species substitutions to the designated plant mixture. Unapproved species delivered to the site shall not be accepted.

I. All plant materials shall be subject to inspection by THE OWNER AND/OR THE OWNER'S AGENT prior to installation. Any plants not in compliance with these specifications or unapproved species substitutions shall not be accepted. The CONTRACTOR shall be required to replace unacceptable species within 72 hours from initial inspection. Thus, meeting the plant material specifications is mandatory and no exceptions will be allowed.

J. The CONTRACTOR shall provide THE OWNER AND/OR THE OWNER'S AGENT copies of all the plant confirmation forms from the nurseries that provide material.

K. Plant Plugs in the Shoreline Zone Plug Mix shall be installed after the prairie areas have been seeded and blanket has been installed. Plant plugs for the Shoreline Zone Plug Mix shall he established in two rows parallel to the shoreline of the basin into the SC-150-BN erosion control blanket. Plugs in the "Lower Row" shall be established in one row parallel with the shoreline with plugs 2-foot on center installed along the NWL of the basin. Plugs in the "Upper Row" shall be established in one row parallel with the shoreline with plugs 2-foot on center installed 1.5 feet above the "Lower Row" of the basin. The Emergent Wetland Plug Mix plants will be installed in variously shaped ponds in same group species throughout the Emergent Wetland Zone.

PART 3 - FIVE-YEAR MANAGEMENT PERIOD ACTIVITIES SPECIFICATIONS

3-01 SPECIFICATIONS:

A. The work consists of the CONTRACTOR conducting routine ecological management activities during the three-year management and monitoring period in the naturalized areas as shown on the Planting Plan drawings to assist the CONTRACTOR in performance standards achievement.

B. During the first two growing seasons of the three-year period the vegetation in the mesic prairie and broad spectrum prairie shall be high-mowed by CONTRACTOR several times during the growing season to ensure the vegetation does not exceed 18 inches in height.. A rotary or flail type mower shall be used. During the high-mowing, the vegetation shall be cut no lower than 6 to 9 inches so the native seedlings are unharmed. To accomplish this, the mower deck should be raised to a height of around 6 to 9 inches. Mowing will aid new plant growth as to allow more sunlight to reach young native seedlings. Mowing will aid in the control of annual weeds, which can undermine planting and seeding efforts. Selective weed whipping can also be used if conditions are unfit (i.e., too wet) for a tractor or if only small, isolated areas of vegetation require culling. In addition, culling the inflorescence prior to seed set of many biennial species including teasel and sweet clover is an effective control method that can be utilized.

C. The CONTRACTOR shall conduct chemical and/or mechanical weed control activities in all the native planting areas for a three-year period following planting/seeding. The CONTRACTOR shall conduct a minimum of four annual weed control application periods (twelve events minimum for three-year period). The CONTRACTOR is responsible to achieve a 95% kill of problematic, nuisance species to successfully complete each of the application periods specified below.

- Application Period One (early spring): problematic species such as, but not limited to, reed canary grass, red/white clover, cattails.
- Application Period Two (late spring to mid summer): problematic species such as, but not limited to, teasel , white/yellow sweet clover, wild carrot, thistle, cattails, purple loosestrife, reed canary grass and common reed.
- Application Period Three (mid to late summer): problematic species such as , but not limited to, tall goldenrod, hairy asler, ragweed, cattails, purple loosestrife, reed canary grass and common reed.
- Application Period Four (late summer and fall): problematic species such as, but not limited to , reed canary grass, thistle, common reed, red/white clover.

D. Natural regeneration of cattails in the basin will likely occur following construction. A pre-planting cattail control will be conducted if any cattails are present. Hand pulling cattails can be conducted when the cattails are small enough to ensure that the entire root is removed. Off-site disposal of cattails will be required. Larger cattails will require herbicide applications. Cattail coverage can be no greater than 1% prior to plant installation. Aggressive cattail control will be required after planting throughout the management period to ensure plant establishment. After planting, the hand-wick application method to control cattails shall be required.

E. The CONTRACTOR may conduct a prescribed burn in the prairie areas during the third growing season if desired by THE OWNER . The CONTRACTOR shall obtain all the required burn permits from the Illinois Environmental Protection Agency, City, and local fire department and prepare all necessary documents required for the permit including a Burn Plan.

F. The CONTRACTOR shall irrigate all plugs, as needed to achieve the survivorship requirements (i.e., 90% survivorship- see performance criteria below).

PART 4 - CONTRACTOR PERFORMANCE CRITERIA

4-01 SPECIFICATIONS:

A. Within 3 months of seed installation, at least 90% of the seeded area (i.e., Economy Prairie and Stormwater mixes), as measured by aerial coverage, shall be vegetated. A minimum 90% vegetative coverage shall be maintained throughout, and at the end of, the three-year period for these areas.

B. At the end of the second year of the monitoring period, a minimum 75% vegetative coverage in the Emergent Wetland Plug Mix zone shall be achieved and maintained throughout the end of the three-year period.

C. The naturalized basin shall not contain any rills greater than 4 inches wide and 4 inches deep throughout, and at the end, of the three-year period.

D. At the end of the second and third year of the monitoring periods, no area greater than 0.5 square meters in the Economy Prairie and Stormwater Seed Mix zones shall he devoid of vegetation.

E. At the end of the second year of the monitoring period, 30% seed mix presence for the Economy Prairie and Stormwater Seed Mix zones shall be achieved. At the end of the third year of the monitoring period, 50% seed mix presence for the Economy Prairie and Stormwater Seed Mix zones shall be achieved. This standard shall be evaluated separately for the naturalized basin slopes and the prairie buffer.

F. At the end of the third year of the monitoring period, the top three most dominant species based on aerial coverage shall not be non-native, cattail or common reed This standard shall be evaluated separately for the prairie seed mix areas and the wetland planting areas.

G. At the end of the second year of the monitoring period, approximate relative coverage (determined by ocular estimation) of non-native species cannot exceed 50%. As such, relative coverage of natives shall be 50% or greater at the end of the second growing season. At the end of the third year of the monitoring period, approximate relative coverage (determined by ocular estimation) of non-native species cannot exceed 25%. As such, relative coverage of natives shall be 75% or greater at the end of the third growing season and maintained through the fifth growing season. This standard shall be evaluated separately for the prairie seed mix areas and the wetland planting areas.

H. Relative coverage (determined by ocular estimation) of cattails, common reed, reed canary grass, and purple loosestrife shall be less than 5% throughout, and at the end of, the third growing season; and less than 2% by the end of the fifth growing season.

I. Relative coverage (determined by ocular estimation) of thistle and teasel is aggregate shall be less than 5% throughout, and at the end of, the third growing season; and less than 2% by the end of the fifth growing season.

J. Plugs must achieve 90% survivorship one-year from plant installation and maintain through the third growing season. Annual replacement planting will be required to achieve this standard if not met annually.

K. The CONTRACTOR shall water plant plugs as needed in order to meet the performance criteria. The irrigation cost to meet the performance criteria is incidental to the contract and shall he included in the lump sum price. The CONTRACTOR shall also perform vegetative management for three years following planting as specified under the section "Three-Year Vegetation Management Activities", to assist with meeting the "Contractor Performance Criteria". If performance criteria are not achieved, CONTRACTOR is responsible to conduct additional activities, which may include supplemental seeding, supplemental planting, and additional years of vegetation management, to rectify areas at no additional cost to OWNER to achieve performance.

L. Note: All three year standards must be maintained through the fifth growing season.

PART 5 - FIVE-YEAR MONITORING AND REPORTING ACTIVITIES

5-01 ANNUAL VEGETATION MONITORING:

A. Semi-annual vegetation monitoring will be conducted beginning the first year and each subsequent year during the five-year management and monitoring period. The five year management and monitoring period begins in the same growing season when all planting and seeding has been completed. For example, if all planting and seeding has been completed by June 2021, the five-year period would initiate in 2021 and extend to the end of the 2025 growing season (2021 - 2025). If seed installation is conducted as a dormant seeding in the fall 2021, the three-year management period would begin in the following growing season (2022 - 2026).

B. CONTRACTOR shall conduct a floristic inventory of all plant communities in the naturalized basin and prairie buffer area twice per year during the management and monitoring period. The first floristic inventory shall he conducted during May/June and the second shall be performed in July/August. The data collected shall be analyzed and evaluated using the Floristic Quality Assessment (FQA) Computer Program. Vegetative coverage estimates and species dominance also will be collected and used to evaluate the performance standards.

C. CONTRACTOR shall maintain photo documentation of site conditions and activities conducted throughout the management period. These photos shall be incorporated into annual monitoring reports.

5-02 ANNUAL MONITORING REPORTS:

A. CONTRACTOR shall prepare and submit an annual monitoring report to THE OWNER AND/OR THE OWNER 'S AGENT by December 31 for each year of the management and monitoring period (three reports required). The monitoring report must document the vegetation data collected during the year's monitoring: inspections. The annual report must include a review of site progression towards meeting the performance standards and propose any necessary remedial actions. More specifically, the monitoring report must contain the following information, which will he based on data collected during the monitoring inspections.

- A summary of management activities conducted during the year, including a description of the activities, dates, areas treated. herbicide logs, and results.
- Representative photographs depicting general site conditions.
- Calculate native mean C and native FQI values, and the native mean wetness coefficient separately for each plant community (i.e., prairie and wetland).
- Provide overall vegetative and relative coverage estimates including species dominance separately for each plant community.
- Evaluate the status of the natural areas relative to the performance standards.
- Prepare a plan and schedule of management activities for the following year to address any issues related to success.

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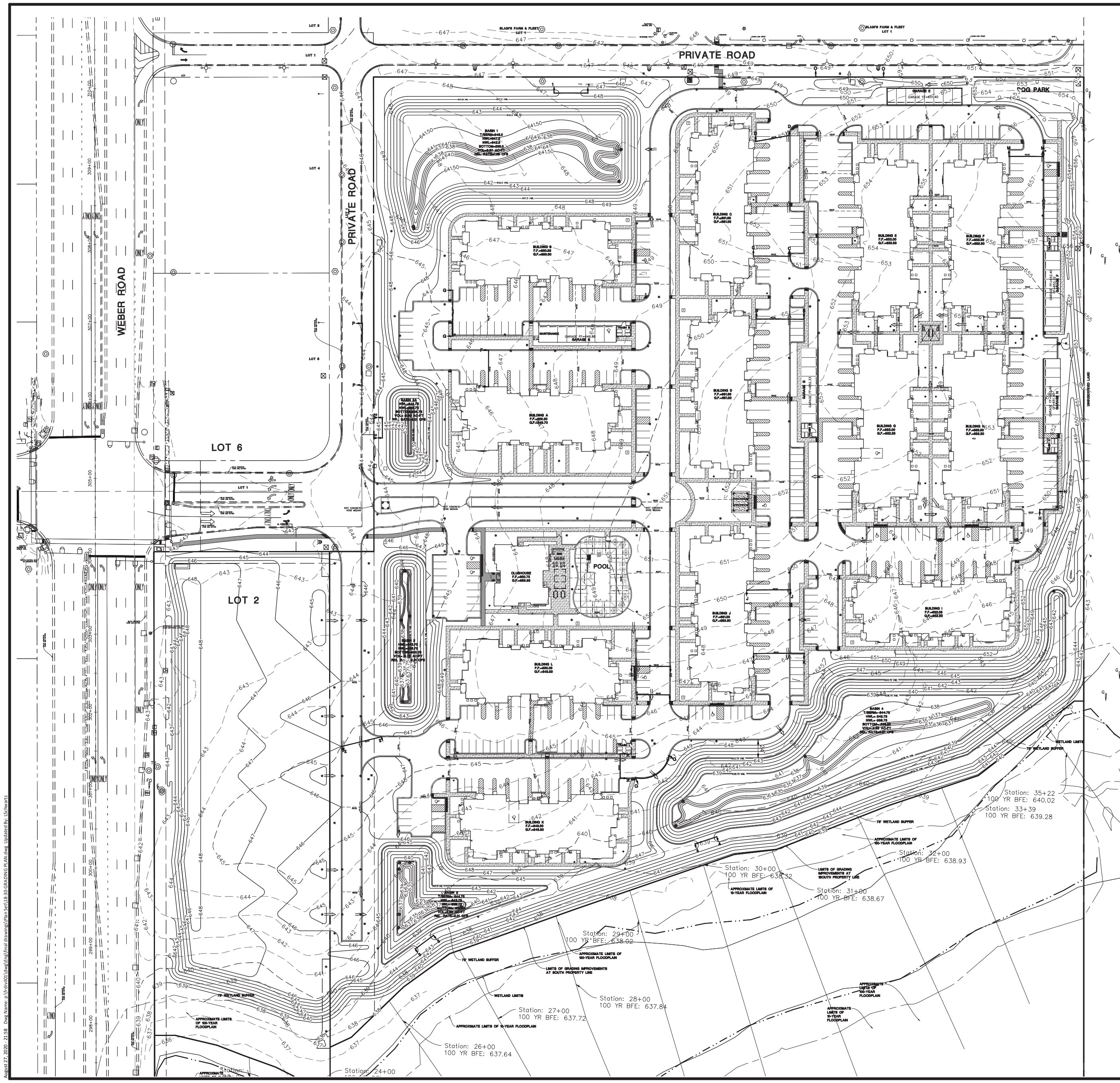
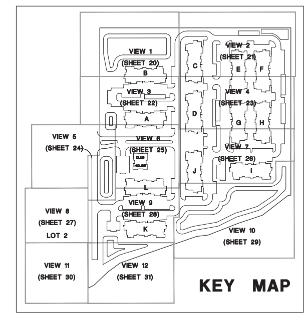
DRAWN BY	REVISIONS	DATE	
MN		09-02-20	REVISED PER VILLAGE COMMENTS
MN		08-04-20	REVISED PER VILLAGE COMMENTS
MN		06-15-20	REVISED PER VILLAGE COMMENTS

SEASONS AT ROMEOVILLE
VILLAGE OF ROMEOVILLE, ILLINOIS
NATIVE PLANTING SPECIFICATIONS

PROJ. MGR.: JSP
PROJ. ASSOC.: MN
DRAWN BY: MN
DATE: 05-01-20
SCALE: NTS

SHEET
L14 OF L14
FRD.RVIL01





DATE	REVISIONS	DRAWN BY
08-05-20	IDPH REVIEW	JCM
06-23-20	IDPH POOL REVIEW	LES
06-15-20	REVISED PER VILLAGE COMMENTS	JCM
05-29-20	REVISED PER NEUMAN POOLS REVIEW	LES

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SEASONS AT ROMEOVILLE

VILLAGE OF ROMEOVILLE, ILLINOIS

OVERALL GRADING PLAN

PROJ. MGR.: JSP
PROJ. ASSOC.: JCM
DRAWN BY: JLT
DATE: 05-01-20
SCALE: 1"=60'

SHEET 19 OF 59

FRD.RVIL01

ISSUED FOR CONSTRUCTION (08/28/20)

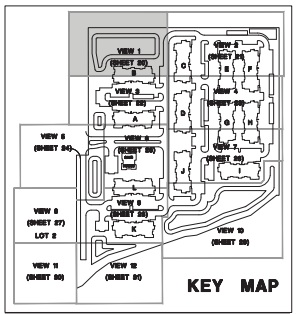
GRADING NOTES:

1. RETAINING WALL DESIGN TO BE PROVIDED BY OTHERS.
2. PAVEMENT SLOPES THROUGH HANDICAP ACCESSIBLE PARKING AREAS SHALL BE 2.00% MAXIMUM IN ANY DIRECTION.
3. ALL HANDICAP RAMPS SHALL BE CONSTRUCTED WITH A MAXIMUM CROSS SLOPE OF 2.00% OR LESS.
4. MEET EXISTING GRADE AT PROPERTY LIMITS UNLESS NOTED OTHERWISE.
5. CONTRACTOR SHALL REFER TO THE SOIL EROSION AND SEDIMENT CONTROL PLAN AND DETAILS FOR CONSTRUCTION SCHEDULING AND EROSION CONTROL MEASURES TO BE INSTALLED PRIOR TO BEGINNING GRADING OPERATIONS.
6. THE CONTRACTOR SHALL CONTACT J.U.L.I.E. (1-800-892-0123) PRIOR TO ANY WORK TO LOCATE UTILITIES AND SHALL CONTACT THE OWNER SHOULD UTILITIES APPEAR TO BE IN CONFLICT WITH THE PROPOSED IMPROVEMENT.
7. THE CONTRACTOR IS SPECIFICALLY CAUTIONED THAT THE LOCATION AND/OR ELEVATION OF EXISTING UTILITIES AS SHOWN ON THESE PLANS IS BASED ON RECORDS OF THE VARIOUS UTILITY COMPANIES, AND WHERE POSSIBLE, MEASUREMENTS TAKEN IN THE FIELD. THE INFORMATION IS NOT TO BE RELIED ON AS BEING EXACT OR COMPLETE. THE CONTRACTOR MUST CALL THE APPROPRIATE UTILITY COMPANIES AT LEAST 72 HOURS BEFORE ANY EXCAVATION TO REQUEST EXACT FIELD LOCATION OF UTILITIES. IT SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR TO RELOCATE ALL EXISTING UTILITIES WHICH CONFLICT WITH THE PROPOSED IMPROVEMENTS SHOWN ON THE PLANS.
8. IF ANY EXISTING STRUCTURES TO REMAIN ARE DAMAGED DURING CONSTRUCTION IT SHALL BE THE CONTRACTORS RESPONSIBILITY TO REPAIR AND/OR REPLACE THE EXISTING STRUCTURE AS NECESSARY TO RETURN IT TO EXISTING CONDITION OR BETTER.
9. ALL UNPAVED AREAS DISTURBED BY GRADING OPERATIONS SHALL RECEIVE 6 INCHES OF TOPSOIL. CONTRACTOR SHALL APPLY STABILIZATION FABRIC TO ALL SLOPES 3H:1V OR STEEPER. CONTRACTOR SHALL STABILIZE DISTURBED AREAS IN ACCORDANCE WITH GOVERNING SPECIFICATIONS UNTIL A HEALTHY STAND OF VEGETATION IS OBTAINED.
10. EXISTING TOPOGRAPHY SHOWN REPRESENTS SITE CONDITIONS AS PREPARED BY MANHARD CONSULTING LTD. ON FEBRUARY 27, 2020. CONTRACTOR SHALL FIELD CHECK EXISTING ELEVATIONS AND CONDITIONS PRIOR TO CONSTRUCTION AND NOTIFY ARCHITECT AND ENGINEER OF ANY DISCREPANCIES PRIOR TO STARTING CONSTRUCTION. IF THE CONTRACTOR DOES NOT ACCEPT EXISTING TOPOGRAPHY AS SHOWN ON THE PLANS, WITHOUT EXCEPTION, THEN THE CONTRACTOR SHALL SUPPLY, AT THEIR EXPENSE, A TOPOGRAPHIC SURVEY BY A REGISTERED LAND SURVEYOR TO THE OWNER FOR REVIEW.
11. TRANSITIONS FROM DEPRESSED CURB TO FULL HEIGHT CURB SHALL BE TAPERED AT 2H:1V UNLESS OTHERWISE NOTED.
12. DRAINAGE SWALES SHALL HAVE A MINIMUM LONGITUDINAL SLOPE OF 2.00% SEE SHEET 56 FOR TYPICAL SWALE DETAIL ALONG EAST PROPERTY.
13. AN ADDITIONAL 1' SHOULD BE ADDED TO ALL PONDING DEPTHS FOR OVERFLOWS AT MANHOLES IN THE CURB LINE TO ACCOUNT FOR DROP ACROSS GUTTER.

N

0 10 20 40

SCALE: 1"=20'

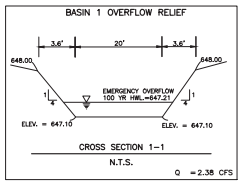


KEY MAP

GRADING PLAN LEGEND

764	PROPOSED 1 FOOT CONTOURS
792.8	PROPOSED SPOT ELEVATION
F.F.	PROPOSED FINISHED FLOOR ELEVATION
G/F	PROPOSED GRADE AT FOUNDATION
P	PROPOSED PAVEMENT ELEVATION
T/C	PROPOSED TOP OF CURB
T/W	PROPOSED TOP OF WALK
T/WALL	PROPOSED TOP OF WALL
M/E	MEET EXISTING
G	PROPOSED GROUND GRADE OR GROUND AT BASE OF RETAINING WALL
	PROPOSED DITCH OR SWALE
	PROPOSED DIRECTION OF FLOW
	OVERFLOW RELIEF SWALE
RIDGE	PROPOSED RIDGE LINE
0.24	PROPOSED DEPTH OF PONDING
	RETAINING WALL
L	PROPOSED SWALE LOW POINT
S	PROPOSED SWALE SUMMIT

BASIN 1 OVERFLOW RELIEF

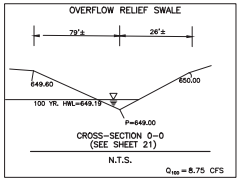


CROSS SECTION 1-1

N.T.S.

Q = 2.38 CFS

OVERFLOW RELIEF SWALE

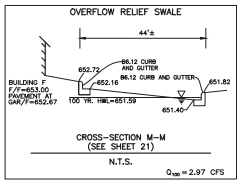


CROSS-SECTION O-O
(SEE SHEET 21)

N.T.S.

Q_{100} = 8.75 CFS

OVERFLOW RELIEF SWALE



CROSS-SECTION M-M
(SEE SHEET 21)

N.T.S.

Q_{100} = 2.97 CFS

LOT 3
LOT 1
LOT 4
LOT 1
PRIVATE ROAD
PRIVATE ROAD
BLAIN'S FARM & FLEET
LOT 1
MEET EXISTING GRADE AT R (TYP)
CONTRACTOR TO MINIMIZE OFF-SITE GRADING WHILE MAINTAINING POSITIVE DRAINAGE BETWEEN OVERFLOW AND CURBLINE
CONTRACTOR TO MINIMIZE OFF-SITE GRADING WHILE MAINTAINING POSITIVE DRAINAGE
EX. RIM ELEVATION=645.04
EX. RIM ELEVATION=644.57
647.0 HWL
642.0 NWL
BASIN 1
T/BERM=648.0
HWL=647.0
NWL=642.0
BOTTOM=638.0
VOL=3.97 AC-FT
REL. RATE=1.29 CFS
RIP-RAP TYP.
BUILDING B
F.F.=650.50
G.F.=650.00
RIDGE
TRANSITION 0" TO 6" CURB OVER 6"
TRANSITION 0"-6" HEIGHT CURB OVER 2'
VARIABLE HEIGHT CURB
MATCHLINE SEE SHEET 21
MATCHLINE SEE SHEET 22

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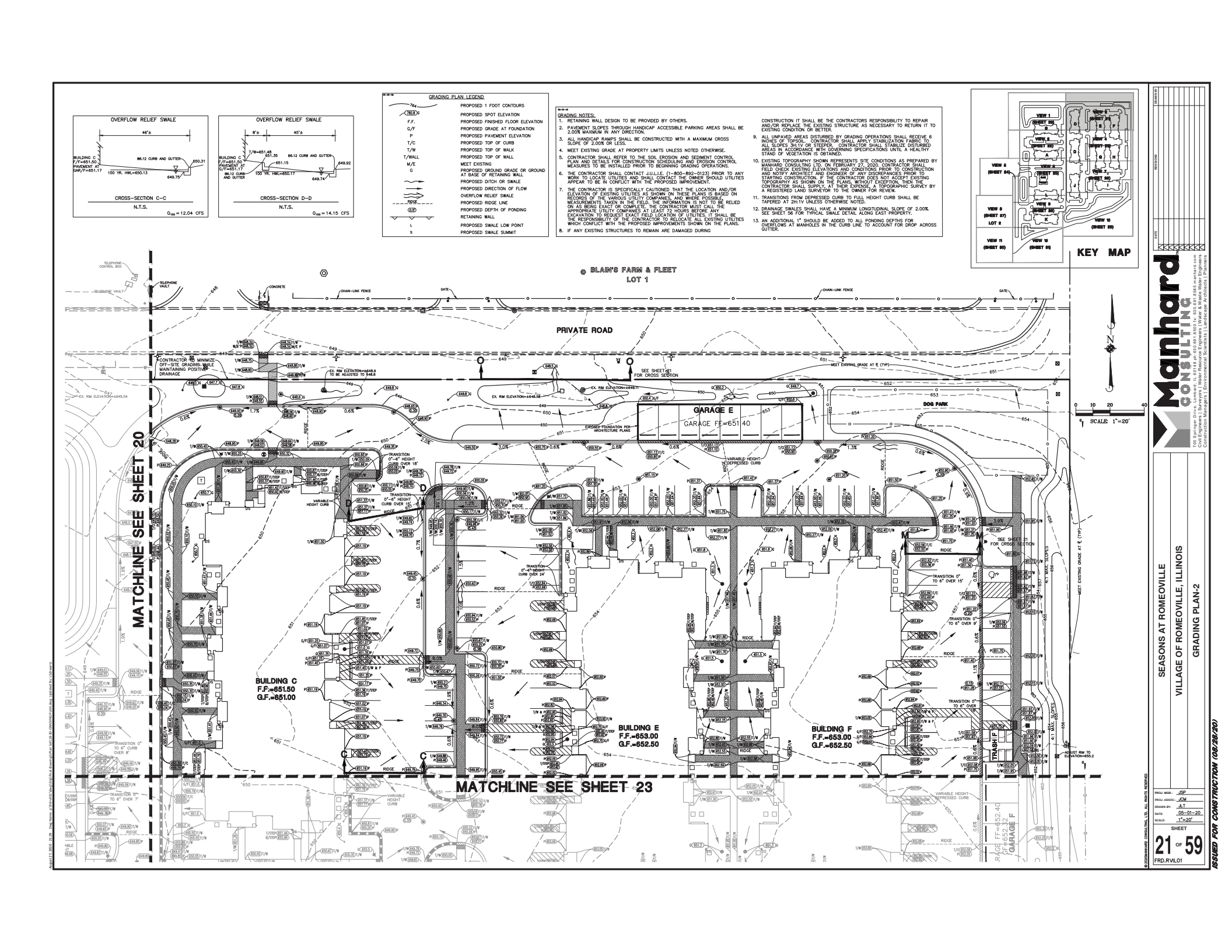
Construction Managers | Environmental Scientists | Landscape Architects | Planners

SEASONS AT ROMEOVILLE
VILLAGE OF ROMEOVILLE, ILLINOIS
GRADING PLAN-1

PROJ. MGR.: JDP
PROJ. ASSOC.: JCM
DRAWN BY: JLT
DATE: 05-01-20
SCALE: 1"=20'

SHEET 20 OF 59
FRD.RVIL01

ISSUED FOR CONSTRUCTION (06/26/20)



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DRAWN BY | REVISIONS | DATE

SEASONS AT ROMEOVILLE
VILLAGE OF ROMEOVILLE, ILLINOIS
GRADING PLAN-2

PROJ. MGR.: JGP
PROJ. ASSOC.: JCM
DRAWN BY: JLT
DATE: 05-01-20
SCALE: 1"=20'

SHEET 21 OF 59
FRD.RVIL01

ISSUED FOR CONSTRUCTION (06/26/20)

GRADING PLAN LEGEND

764	PROPOSED 1 FOOT CONTOURS
792.8 x	PROPOSED SPOT ELEVATION
F.F.	PROPOSED FINISHED FLOOR ELEVATION
G/F	PROPOSED GRADE AT FOUNDATION
P	PROPOSED PAVEMENT ELEVATION
T/C	PROPOSED TOP OF CURB
T/W	PROPOSED TOP OF WALK
T/WALL	PROPOSED TOP OF WALL
M/E	MEET EXISTING
G	PROPOSED GROUND GRADE OR GROUND AT BASE OF RETAINING WALL
	PROPOSED DITCH OR SWALE
	PROPOSED DIRECTION OF FLOW
	OVERFLOW RELIEF SWALE
RIDGE	PROPOSED RIDGE LINE
0.2'	PROPOSED DEPTH OF PONDING
	RETAINING WALL
L	PROPOSED SWALE LOW POINT
S	PROPOSED SWALE SUMMIT

GRADING NOTES:

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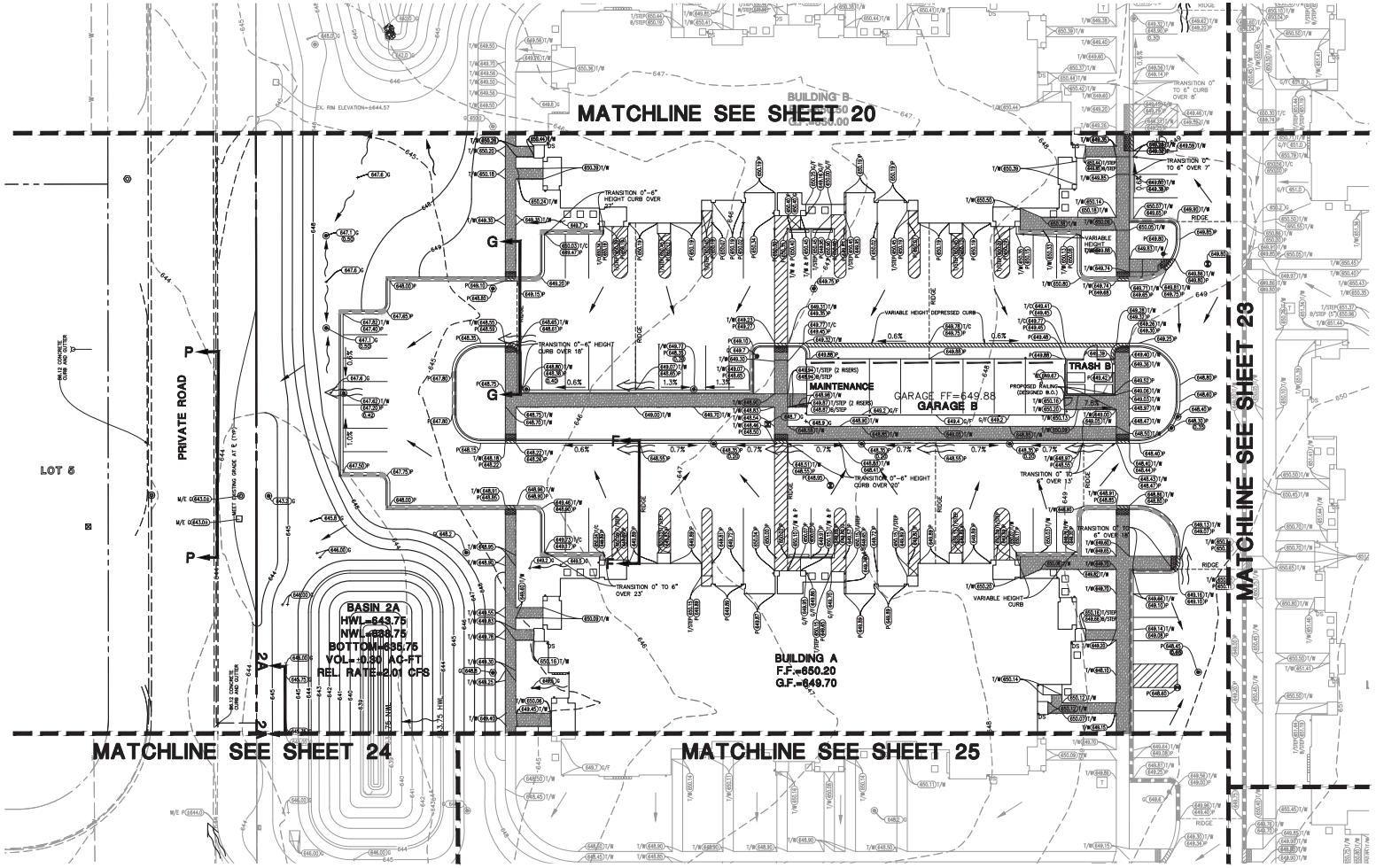
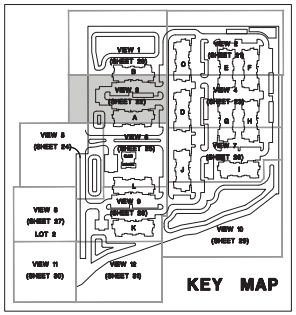
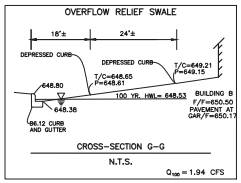
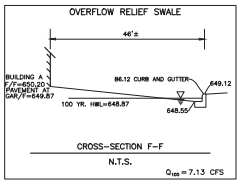
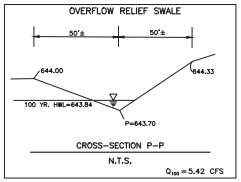
12. DRAINAGE SWALES SHALL HAVE A MINIMUM LONGITUDINAL SLOPE OF 2.00% SEE SHEET 56 FOR TYPICAL SWALE DETAIL ALONG EAST PROPERTY.
13. AN ADDITIONAL 1' SHOULD BE ADDED TO ALL PONDING DEPTHS FOR OVERFLOWS AT MANHOLES IN THE CURB LINE TO ACCOUNT FOR DROP ACROSS GUTTER.

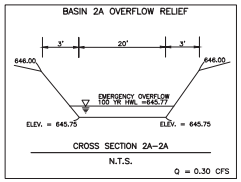












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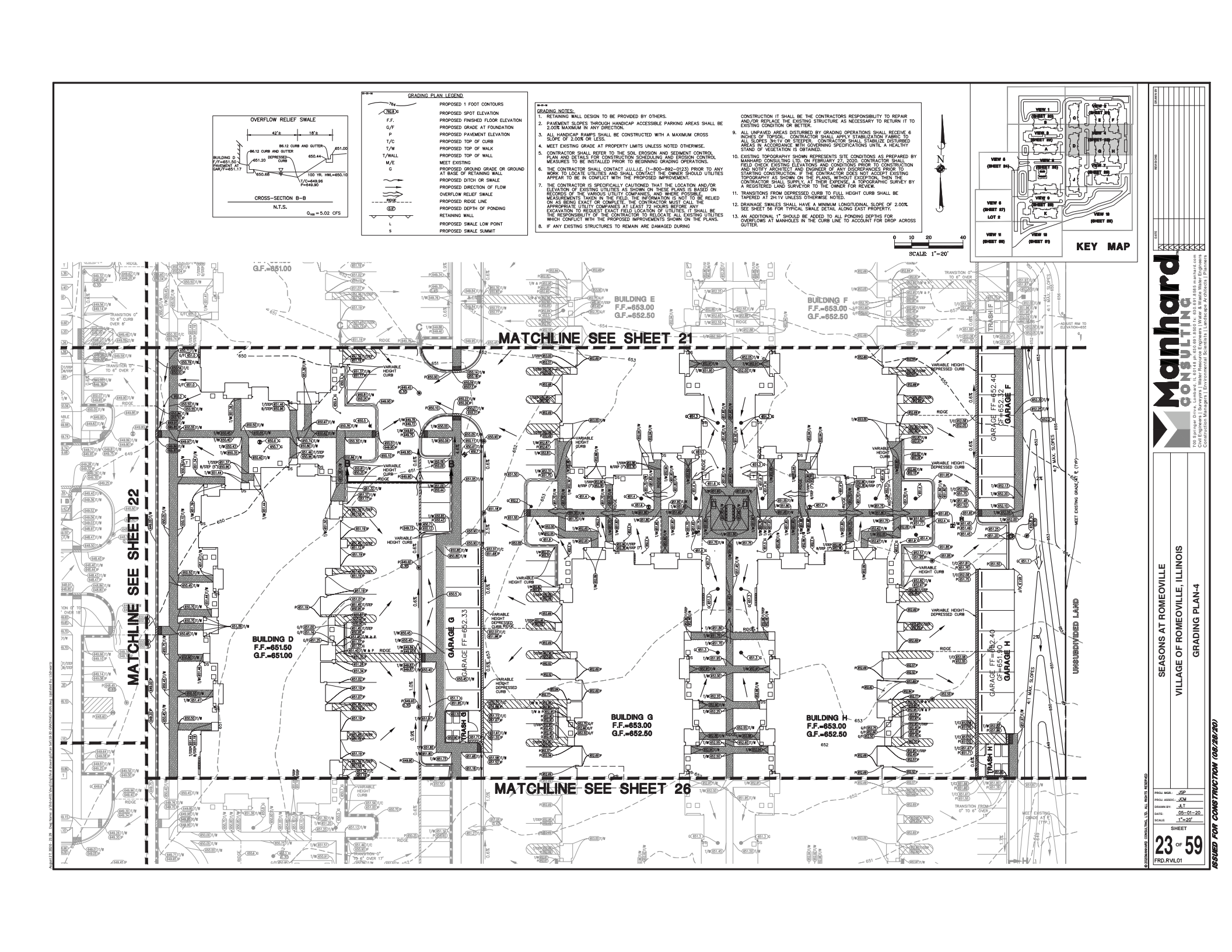
SEASONS AT ROMEOVILLE
VILLAGE OF ROMEOVILLE, ILLINOIS
GRADING PLAN-3

PROJ. MGR.: JGP
PROJ. ASSOC.: JCM
DRAWN BY: JLT
DATE: 05-01-20
SCALE: 1"=20'

SHEET 22 OF 59
FRD.RVIL01

ISSUED FOR CONSTRUCTION (06/26/20)


OVERFLOW RELIEF SWALE
42'±
18'±
B6.12 CURB AND GUTTER
B6.12 CURB AND GUTTER
651.00
BUILDING D
F.F.=651.50
PAVEMENT AT GAR.=651.17
651.20
DEPRESSED CURB
650.44
650.68
100 YR. HWL=650.10
T/C=649.96
F=649.90
CROSS-SECTION B-B
N.T.S.
Q100 = 5.02 CFS
GRADING PLAN LEGEND
PROPOSED 1 FOOT CONTOURS
PROPOSED SPOT ELEVATION
PROPOSED FINISHED FLOOR ELEVATION
PROPOSED GRADE AT FOUNDATION
PROPOSED PAVEMENT ELEVATION
PROPOSED TOP OF CURB
PROPOSED TOP OF WALK
PROPOSED TOP OF WALL
MEET EXISTING
PROPOSED GROUND GRADE OR GROUND AT BASE OF RETAINING WALL
PROPOSED DITCH OR SWALE
PROPOSED DIRECTION OF FLOW
OVERFLOW RELIEF SWALE
PROPOSED RIDGE LINE
PROPOSED DEPTH OF PONDING
RETAINING WALL
PROPOSED SWALE LOW POINT
PROPOSED SWALE SUMMIT
GRADING NOTES:
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3. ALL HANDICAP RAMPS SHALL BE CONSTRUCTED WITH A MAXIMUM CROSS SLOPE OF 2.00% OR LESS.
4. MEET EXISTING GRADE AT PROPERTY LIMITS UNLESS NOTED OTHERWISE.
5. CONTRACTOR SHALL REFER TO THE SOIL EROSION AND SEDIMENT CONTROL PLAN AND DETAILS FOR CONSTRUCTION SCHEDULING AND EROSION CONTROL MEASURES TO BE INSTALLED PRIOR TO BEGINNING GRADING OPERATIONS.
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0 10 20 40
SCALE: 1"=20'
KEY MAP
VIEW 1 (SHEET S5)
VIEW 2 (SHEET S5)
VIEW 3 (SHEET S5)
VIEW 4 (SHEET S5)
VIEW 5 (SHEET S5)
VIEW 6 (SHEET S5)
VIEW 7 (SHEET S5)
VIEW 8 (SHEET S5)
VIEW 9 (SHEET S5)
VIEW 10 (SHEET S5)
VIEW 11 (SHEET S5)
VIEW 12 (SHEET S5)
VIEW 6 (SHEET S7) LOT 2
G.F.=651.00
BUILDING E
F.F.=653.00
G.F.=652.50
BUILDING F
F.F.=653.00
G.F.=652.50
MATCHLINE SEE SHEET 21
MATCHLINE SEE SHEET 22
MATCHLINE SEE SHEET 26
BUILDING D
F.F.=651.50
G.F.=651.00
BUILDING G
F.F.=653.00
G.F.=652.50
BUILDING H
F.F.=653.00
G.F.=652.50
GARAGE G FF=652.33
GARAGE FF=652.40 GF=652.32 GARAGE F
GARAGE FF=652.40 GF=651.90 GARAGE H
TRASH F
TRASH G
TRASH H
VARIABLE HEIGHT CURB
VARIABLE HEIGHT DEPRESSED CURB
TRANSITION 0" TO 6" CURB OVER 8'
TRANSITION 0" TO 6" OVER 7'
TRANSITION 0" TO 6" OVER 18'
TRANSITION 0" TO 6" OVER 17'
TRANSITION FROM 0" TO 6" OVER 19'
4:1 MAX. SLOPES
6:1 MAX. SLOPES
MEET EXISTING GRADE AT E (TYP.)
ADJUST RIM TO ELEVATION=655
UNSUBDIVIDED LAND
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SEASONS AT ROMEOVILLE
VILLAGE OF ROMEOVILLE, ILLINOIS
GRADING PLAN-4
PROJ. MGR.: JDP
PROJ. ASSOC.: JCM
DRAWN BY: JLT
DATE: 05-01-20
SCALE: 1"=20'
SHEET 23 OF 59
FRD.RVIL01
ISSUED FOR CONSTRUCTION (06/26/20)
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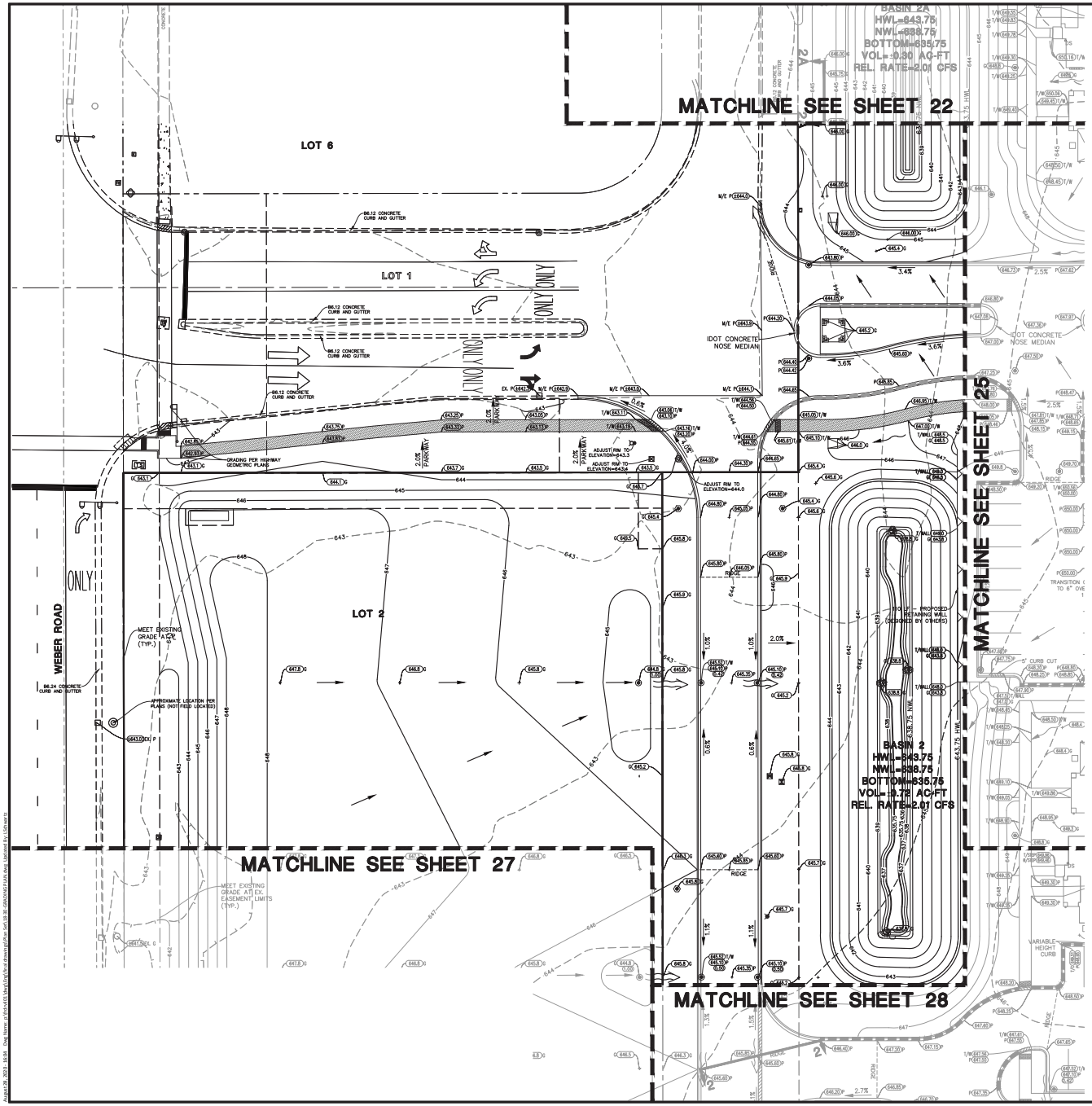

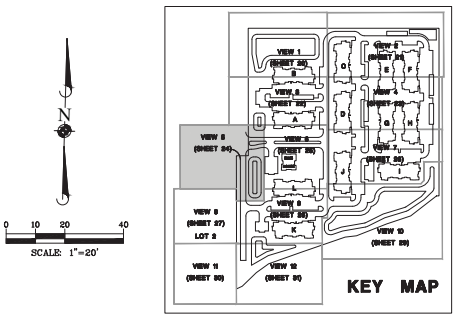

N

0 10 20 40

SCALE 1"=20'

GRADING PLAN LEGEND

764	PROPOSED 1 FOOT CONTOURS
792.8	PROPOSED SPOT ELEVATION
F.F.	PROPOSED FINISHED FLOOR ELEVATION
G/F	PROPOSED GRADE AT FOUNDATION
P	PROPOSED PAVEMENT ELEVATION
T/C	PROPOSED TOP OF CURB
T/W	PROPOSED TOP OF WALK
T/WALL	PROPOSED TOP OF WALL
M/E	MEET EXISTING
G	PROPOSED GROUND GRADE OR GROUND AT BASE OF RETAINING WALL
	PROPOSED DITCH OR SWALE
	PROPOSED DIRECTION OF FLOW
	OVERFLOW RELIEF SWALE
RIDGE	PROPOSED RIDGE LINE
D.P.	PROPOSED DEPTH OF PONDING
	RETAINING WALL
L	PROPOSED SWALE LOW POINT
S	PROPOSED SWALE SUMMIT

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DRAWN BY | REVISIONS | DATE

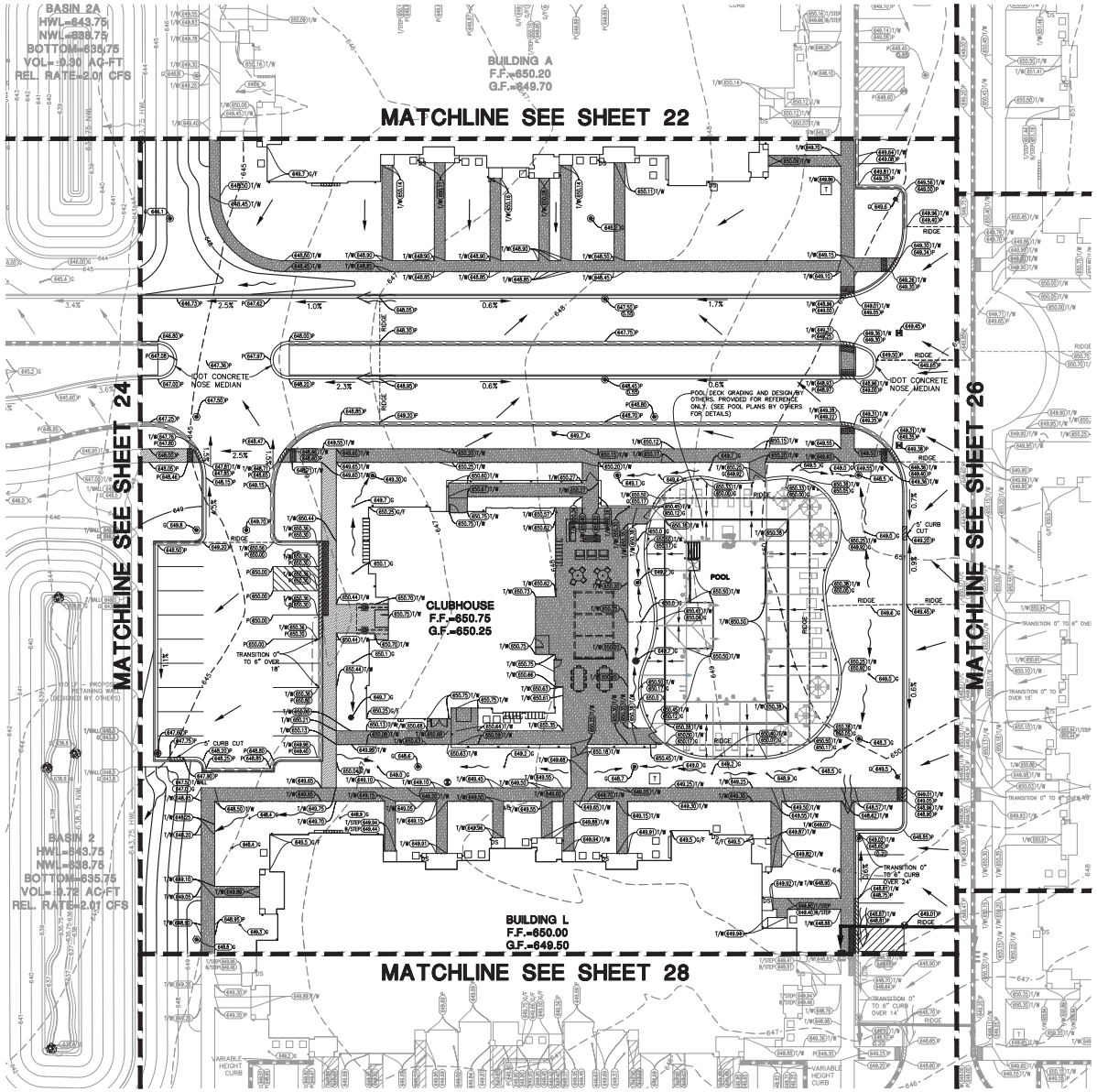
SEASONS AT ROMEOVILLE
VILLAGE OF ROMEOVILLE, ILLINOIS
GRADING PLAN-5

PROJ. MGR.: JDP
PROJ. ASSOC.: JCM
DRAWN BY: JLT
DATE: 05-01-20
SCALE: 1"=20'

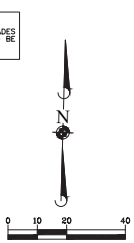
SHEET 24 OF 59
FRD.RVIL01

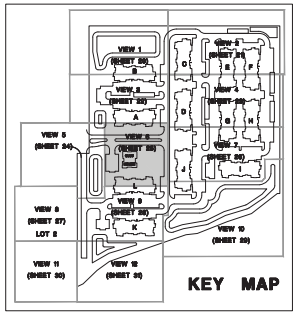
ISSUED FOR CONSTRUCTION (08/28/20)

August 28, 2020 - 10:30A Dwg Name: J:\Projects\Seasons\Civil\Sheets\FRD\Grading\Grading Plans\GP-5.dwg Modified by: rcarlson



NOTE:
PER ILLINOIS STATE CODE, ALL GRADES AROUND THE POOL PERIMETER ARE TO BE 4" LOWER THAN THE POOL DECK.





GRADING PLAN LEGEND

764	PROPOSED 1 FOOT CONTOURS
792.6 x	PROPOSED SPOT ELEVATION
F.F.	PROPOSED FINISHED FLOOR ELEVATION
G/F	PROPOSED GRADE AT FOUNDATION
P	PROPOSED PAVEMENT ELEVATION
T/C	PROPOSED TOP OF CURB
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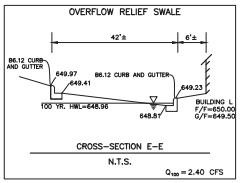

DRAWN BY	
REVISIONS	
DATE	
08-05-20	JDH REVIEW
08-10-20	REVISED PER REVIEW COMMENTS
08-15-20	REVISED PER VILLAGE COMMENTS
08-29-20	REVISED PER NEUMAN POOLS REVIEW

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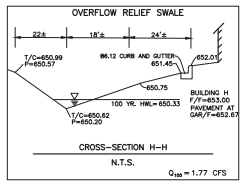
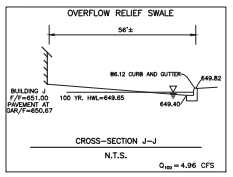
SEASONS AT ROMEOVILLE
VILLAGE OF ROMEOVILLE, ILLINOIS
GRADING PLAN-6

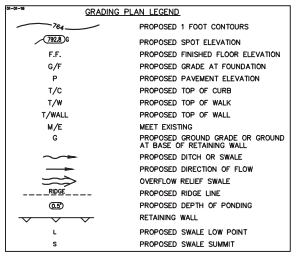
PROJ. MGR.:	JDP
PROJ. ASSOC.:	JCM
DRAWN BY:	JLT
DATE:	05-01-20
SCALE:	1"=20'

SHEET 25 OF 59
FRD.RVIL01

ISSUED FOR CONSTRUCTION (08/28/20)







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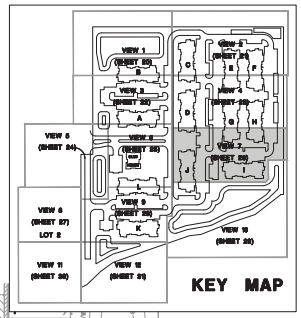

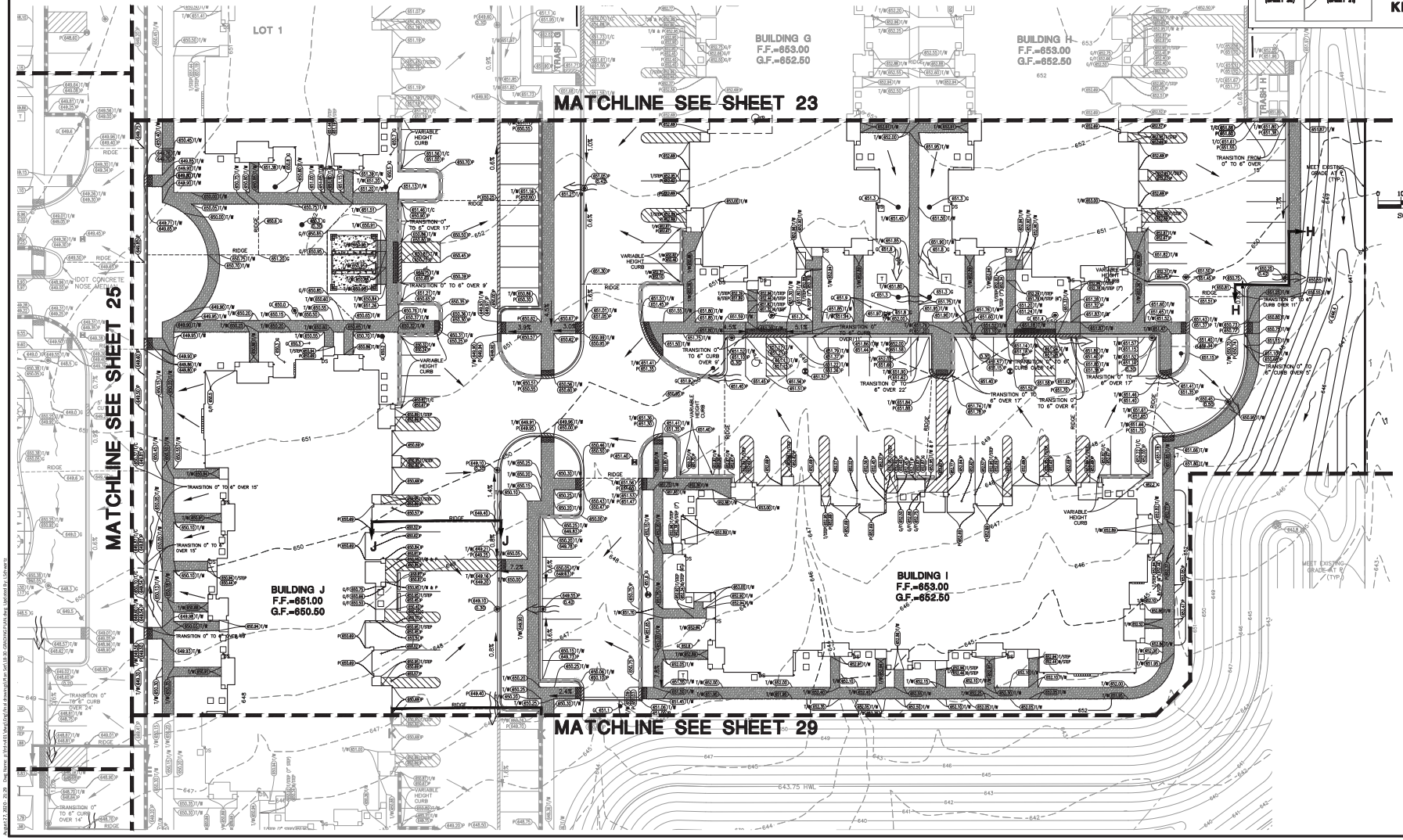

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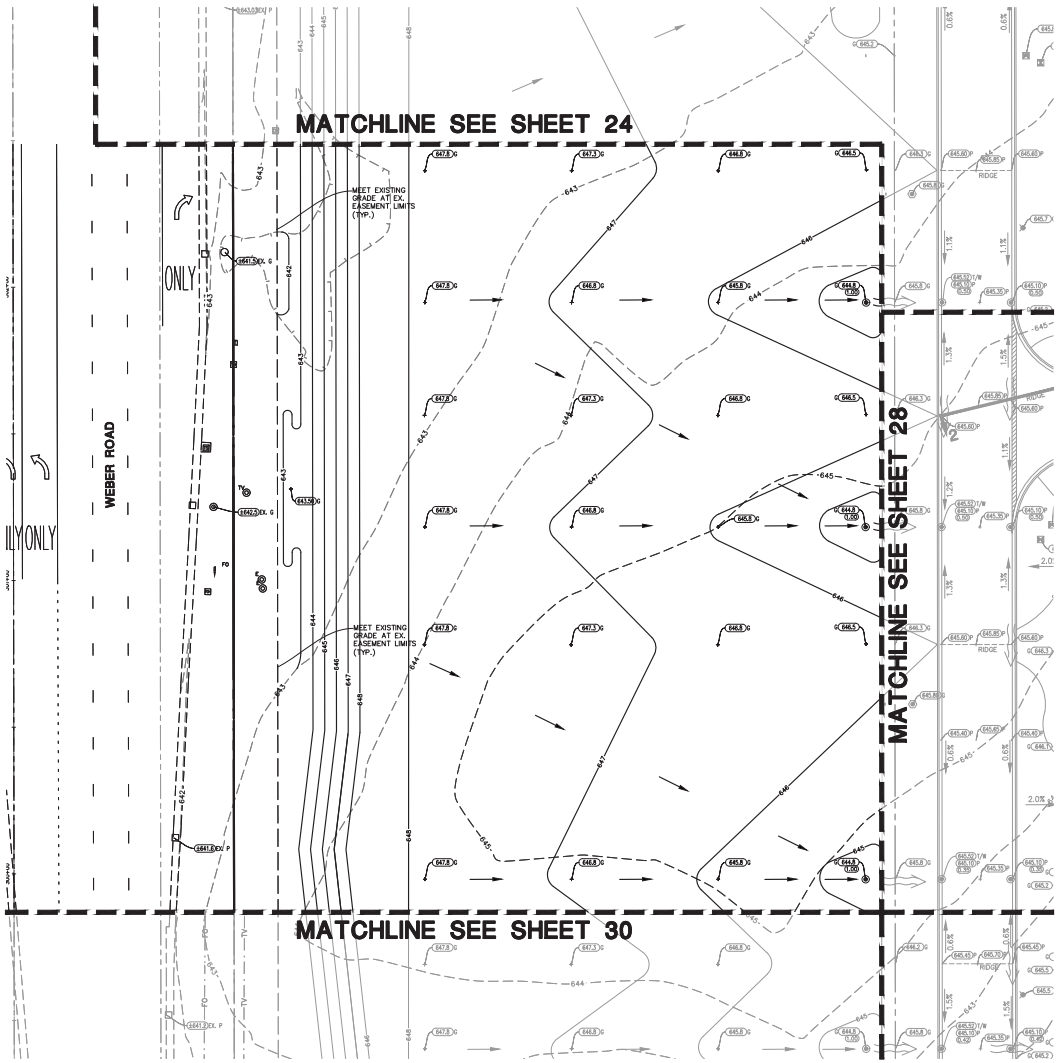
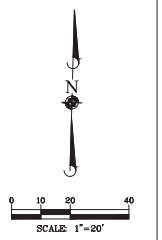
SEASONS AT ROMEOVILLE
VILLAGE OF ROMEOVILLE, ILLINOIS
GRADING PLAN-7

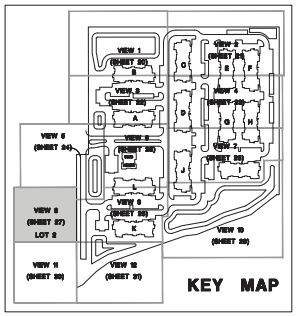
PROJ. MGR.: JDP
PROJ. ASSOC.: JCM
DRAWN BY: JLT
DATE: 05-01-20
SCALE: 1"=20'

SHEET 26 OF 59
FRD.RVIL01

ISSUED FOR CONSTRUCTION (06/26/20)







GRADING PLAN LEGEND

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762.8 G	PROPOSED SPOT ELEVATION
F.F.	PROPOSED FINISHED FLOOR ELEVATION
G/F	PROPOSED GRADE AT FOUNDATION
P	PROPOSED PAVEMENT ELEVATION
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11. TRANSITIONS FROM DEPRESSED CURB TO FULL HEIGHT CURB SHALL BE TAPERED AT 2H:1V UNLESS OTHERWISE NOTED.

DRAWN BY | REVISIONS | DATE

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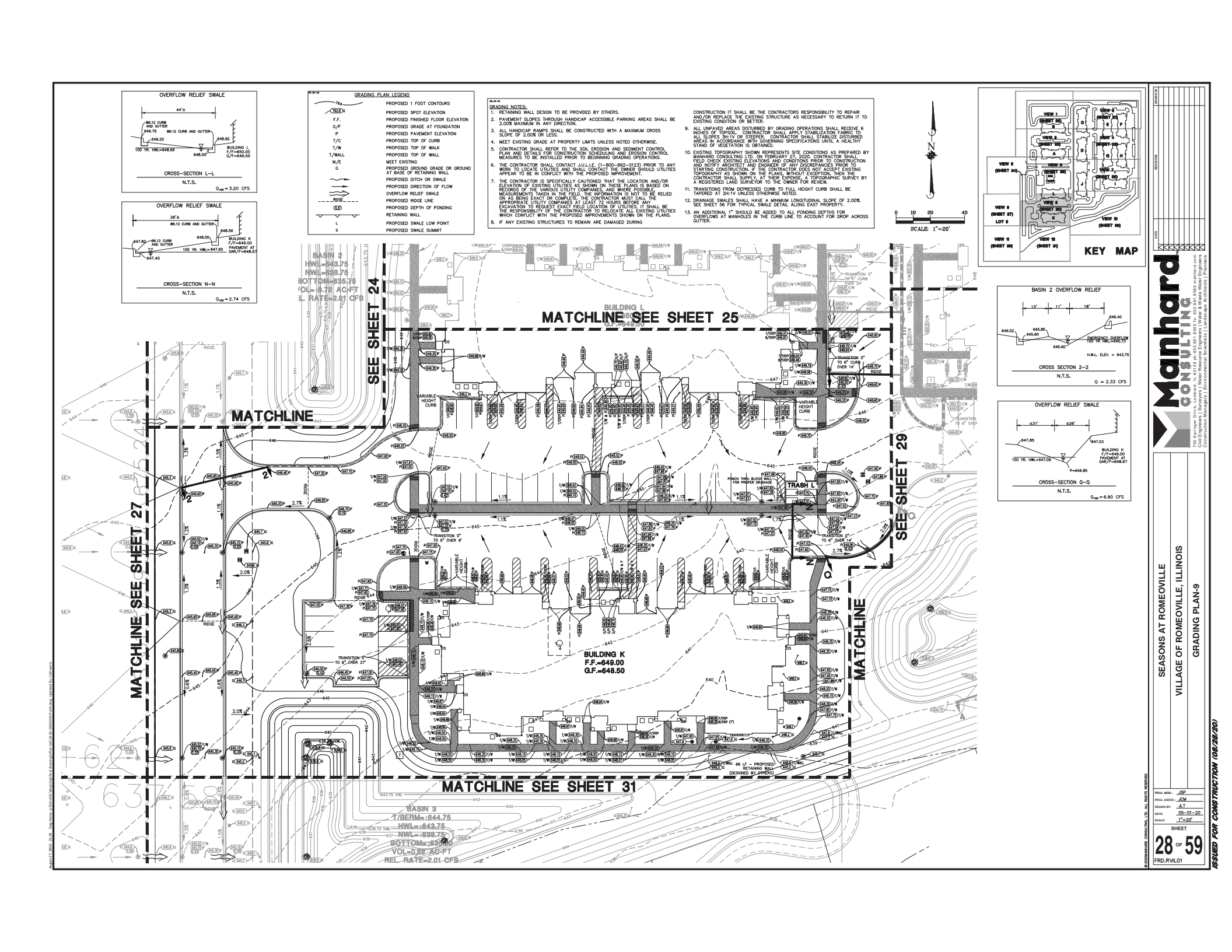
SEASONS AT ROMEOVILLE
VILLAGE OF ROMEOVILLE, ILLINOIS
GRADING PLAN-8

PROJ. MGR.: JGP
PROJ. ASSOC.: JCM
DRAWN BY: JLT
DATE: 05-01-20
SCALE: 1"=20'

SHEET 27 OF 59
FRD.RVIL01

ISSUED FOR CONSTRUCTION (06/26/20)

August 27, 2020 - 12:29 Dwg Name: J:\Projects\Seasons\Romeoville\Engineering\Civil\Sheets\Grading Plans\FRD.RVIL01 - GRADING PLAN-8.dwg Updated By: cshumann



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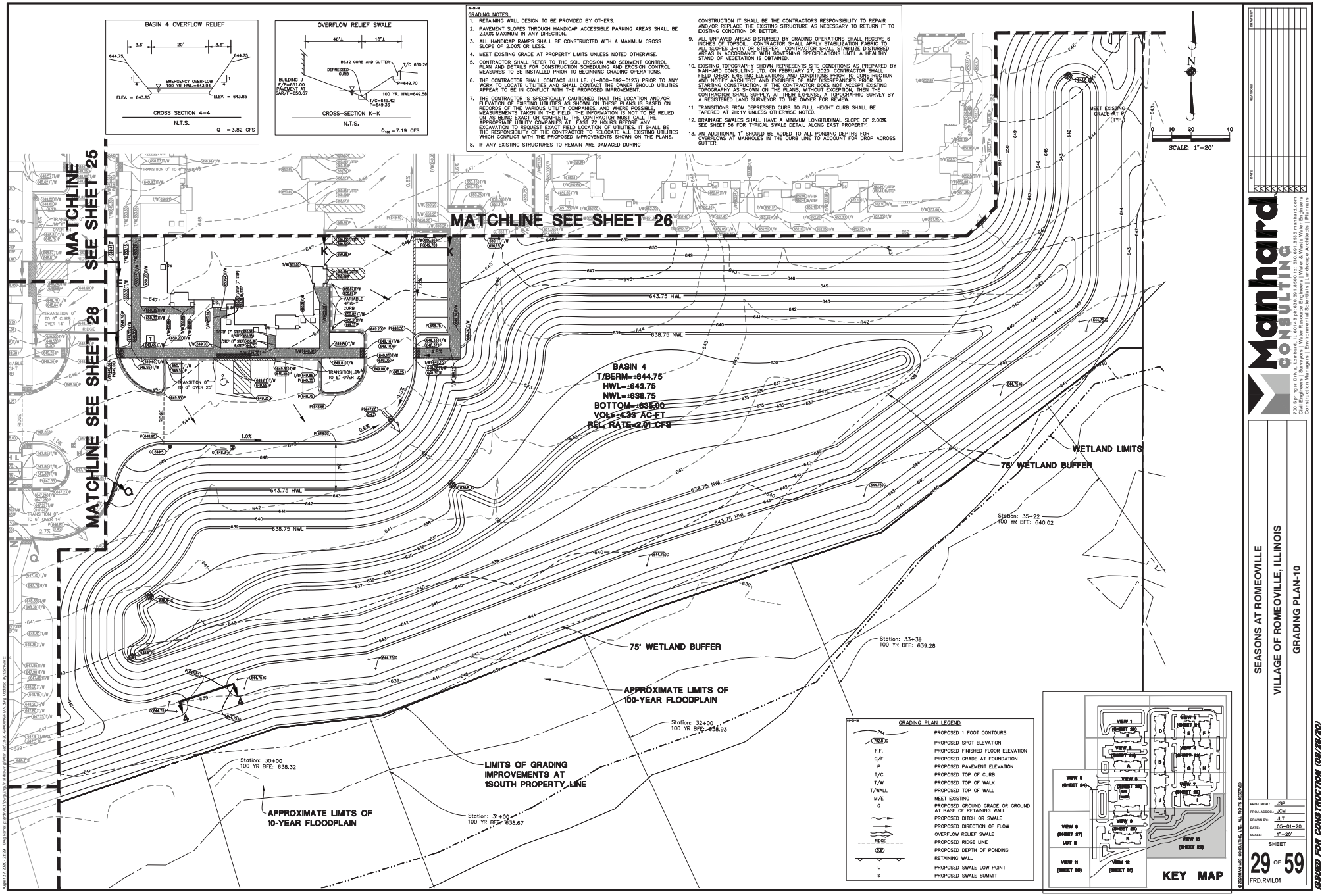
SEASONS AT ROMEOVILLE
VILLAGE OF ROMEOVILLE, ILLINOIS
GRADING PLAN-9

PROJ. MGR.: JDP
PROJ. ASSOC.: JCM
DRAWN BY: JLT
DATE: 05-01-20
SCALE: 1"=20'

SHEET 28 OF 59
FRD.RVIL01

ISSUED FOR CONSTRUCTION (06/26/20)



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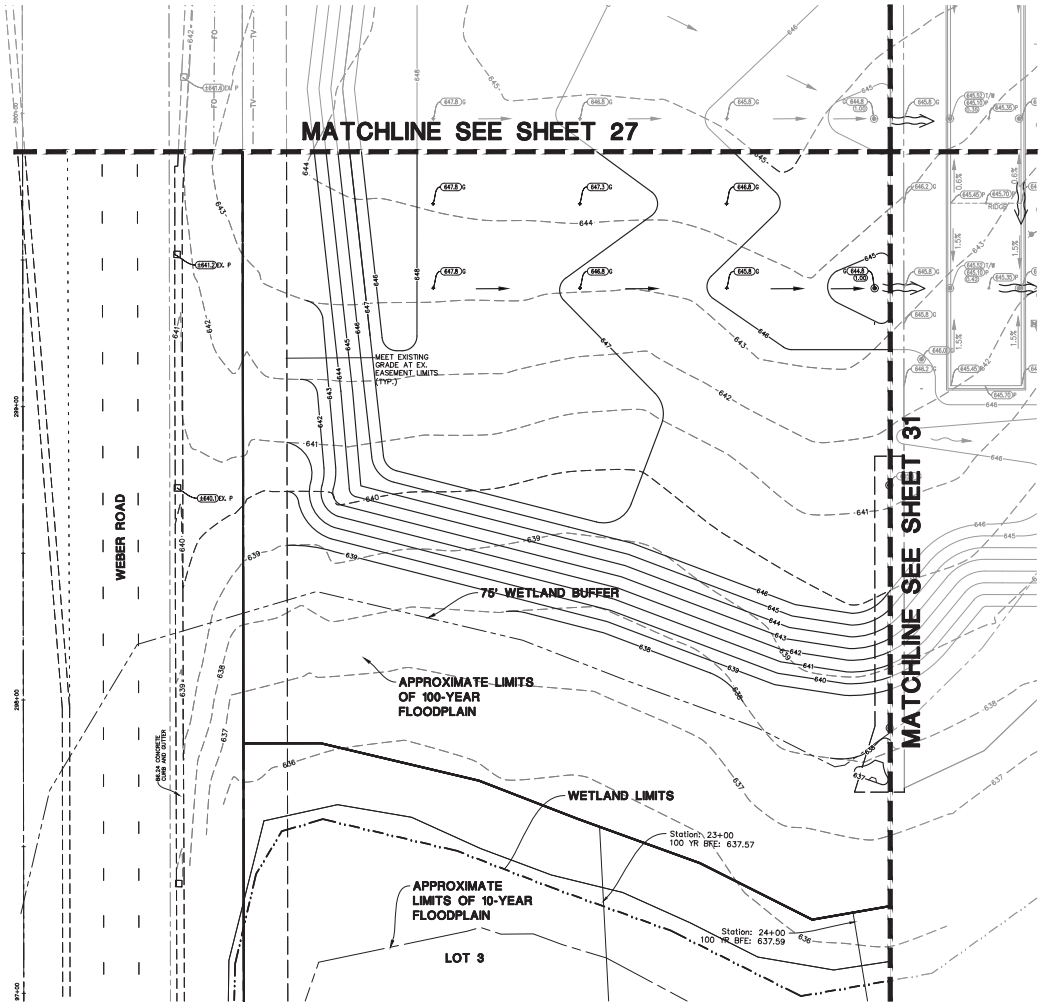
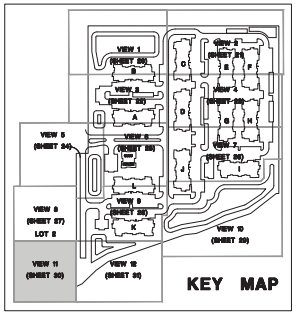
SEASONS AT ROMEOVILLE
VILLAGE OF ROMEOVILLE, ILLINOIS
GRADING PLAN-10

PROJ. MGR.: JDP
PROJ. ASSOC.: JCM
DRAWN BY: JLT
DATE: 05-01-20
SCALE: 1"=20'

SHEET 29 OF 59
FRD.RVIL01

ISSUED FOR CONSTRUCTION (06/26/20)





GRADING PLAN LEGEND

764	PROPOSED 1 FOOT CONTOURS
792.8	PROPOSED SPOT ELEVATION
F.F.	PROPOSED FINISHED FLOOR ELEVATION
G/F	PROPOSED GRADE AT FOUNDATION
P	PROPOSED PAVEMENT ELEVATION
T/C	PROPOSED TOP OF CURB
T/W	PROPOSED TOP OF WALK
T/WALL	PROPOSED TOP OF WALL
M/E	MEET EXISTING
G	PROPOSED GROUND GRADE OR GROUND AT BASE OF RETAINING WALL
	PROPOSED DITCH OR SWALE
	PROPOSED DIRECTION OF FLOW
	OVERFLOW RELIEF SWALE
RIDGE	PROPOSED RIDGE LINE
(0.3)	PROPOSED DEPTH OF PONDING
	RETAINING WALL
L	PROPOSED SWALE LOW POINT
S	PROPOSED SWALE SUMMIT

GRADING NOTES:

1. RETAINING WALL DESIGN TO BE PROVIDED BY OTHERS.
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3. ALL HANDICAP RAMPS SHALL BE CONSTRUCTED WITH A MAXIMUM CROSS SLOPE OF 2.00% OR LESS.
4. MEET EXISTING GRADE AT PROPERTY LIMITS UNLESS NOTED OTHERWISE.
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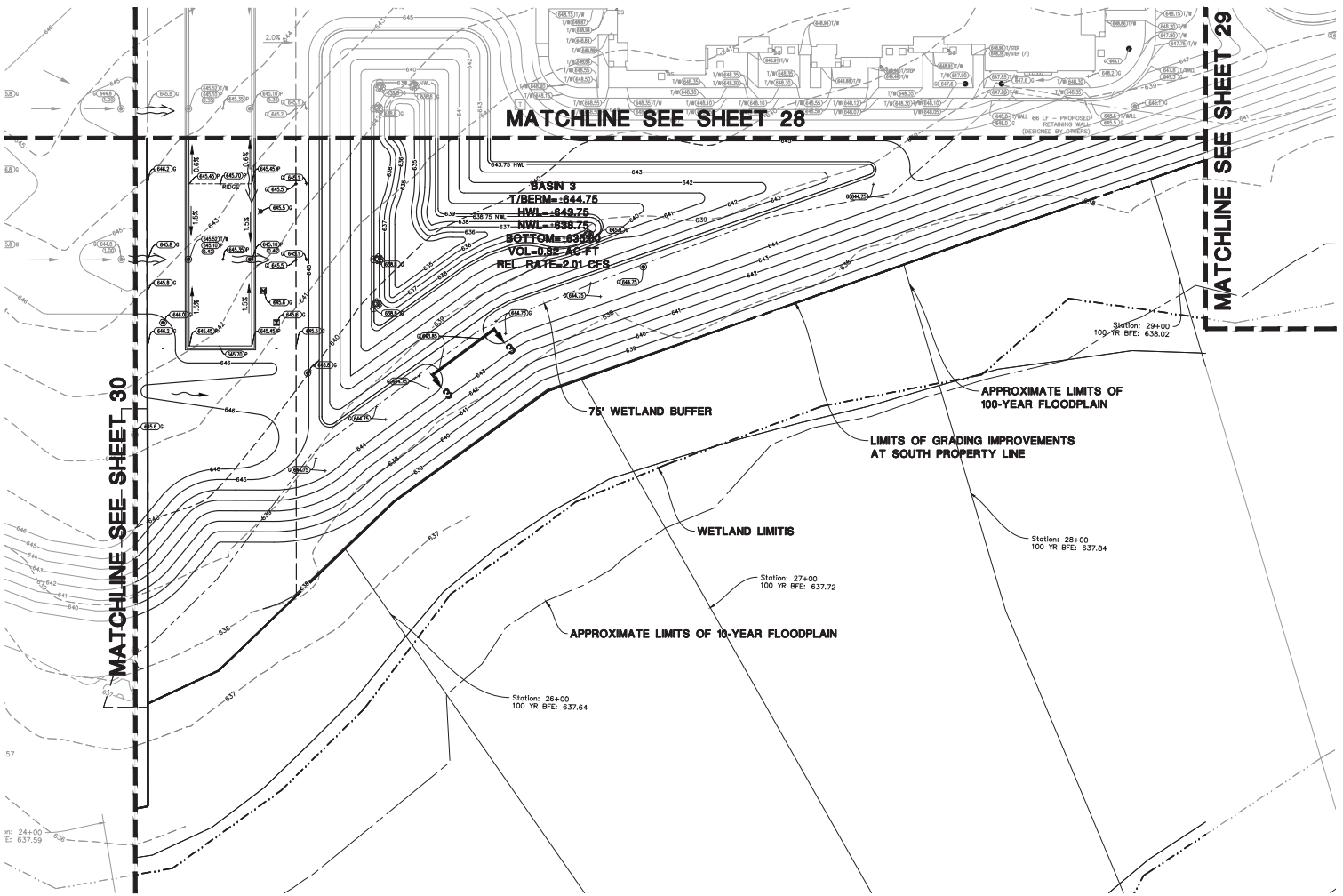
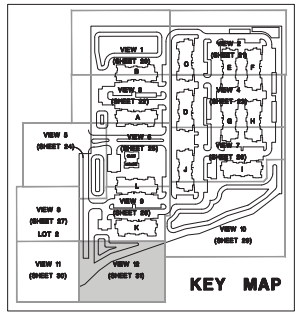
SEASONS AT ROMEOVILLE
VILLAGE OF ROMEOVILLE, ILLINOIS
GRADING PLAN-11

PROJ. MGR.: JGP
PROJ. ASSOC.: JCM
DRAWN BY: JLT
DATE: 05-01-20
SCALE: 1"=20'

SHEET 30 OF 59
FRD.RVIL01

ISSUED FOR CONSTRUCTION (06/26/20)





GRADING PLAN LEGEND

764	PROPOSED 1 FOOT CONTOURS
762.8	PROPOSED SPOT ELEVATION
F.F.	PROPOSED FINISHED FLOOR ELEVATION
G/F	PROPOSED GRADE AT FOUNDATION
P	PROPOSED PAVEMENT ELEVATION
T/C	PROPOSED TOP OF CURB
T/W	PROPOSED TOP OF WALK
T/WALL	PROPOSED TOP OF WALL
M/E	MEET EXISTING
G	PROPOSED GROUND GRADE OR GROUND AT BASE OF RETAINING WALL
	PROPOSED DITCH OR SWALE
	PROPOSED DIRECTION OF FLOW
	OVERFLOW RELIEF SWALE
RIDGE	PROPOSED RIDGE LINE
0.2	PROPOSED DEPTH OF PONDING
	RETAINING WALL
L	PROPOSED SWALE LOW POINT
S	PROPOSED SWALE SUMMIT

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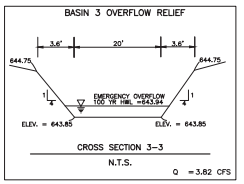

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SEASONS AT ROMEOVILLE
VILLAGE OF ROMEOVILLE, ILLINOIS
GRADING PLAN-12

PROJ. MGR.: JGP
PROJ. ASSOC.: JCM
DRAWN BY: JLT
DATE: 05-01-20
SCALE: 1"=20'

SHEET 31 OF 59
FRD.RVIL01

ISSUED FOR CONSTRUCTION (08/28/20)

Native Plantings Maintenance Plan

Naturalized Landscape Specialist Prequalification

All work shall be performed by a native landscape contractor with at least five (5) years of documented experience in site preparation, planting of native species and native landscape management, and shall be able to demonstrate their knowledge in the field. Qualifications are to be provided to the owner's representative through submittal of references, photographs, resumes, and/or other means that demonstrate the ability to install and/or manage naturalized landscapes.

Maintenance Plan for Native Plantings

Contractors installing native plants shall perform maintenance, management, and monitoring for a minimum of five years, or until all performance criteria are met. Invasive and non-native species not specified as part of the planting plan shall be controlled by appropriate management practices. Management activities should be planned in response to issues identified in periodic monitoring efforts performed by the Contractor.

The monitoring and management period begins upon the completion of planting. Maintenance activities should be based, in part, on problems identified in the annual monitoring effort. Although specific maintenance and management needs will be determined in the field, standard management protocols shall include the following measures. The contractor will provide the client a list/map punchlist of problem areas and recommendations and schedules for maintenance. The punchlist will be provided after each monitoring or as requested by the client. Once maintenance activities have been conducted to address the problems, a follow-up letter will be provided to the client documenting the work.

1st Year

If unusually dry conditions persist after summer planting or seeding, short- term irrigation shall be done to prevent desiccation. Irrigation generally will not be necessary, however, if planting is done in the recommended seasons of late fall through spring.

During the first growing season a maintenance regime must begin in order to prevent the establishment of weeds and their adverse effects on the establishment of native seedlings. Control of undesirable plant species shall be done in a timely manner. Methods of control include hand pulling, mowing, spot herbicide application, or a combination of these methods. The appropriateness of a particular control method depends on the plant species present and their density or prevalence.

Mowing is a recommended management option to control undesirable upland species, especially if they persist over a large area and in areas where shrubs and trees have been planted. Mowing is recommended during the first growing season on approximately a monthly frequency, with the mower set to a height of about 8 inches.

2nd Year

Weed growth in the second season should be treated by targeted herbiciding, hand pulling, or mowing. The appropriate protocol should be determined in the field. If sufficient fuel is present, a controlled burn may be scheduled at the end of the second growing season only in large areas away from trees and shrubs.

3rd-5th Year

By the third growing season, native grasses, sedges, and forbs should be relatively well established and weed growth should be declining significantly. Control

measures such as weeding, mowing, or herbiciding should be continued on an as needed basis. It is anticipated that controlled burn management may be utilized from the 3rd year onward only in large areas away from trees and shrubs. Controlled burns should be conducted only after receipt of all required permits and by trained individuals or contractors. If burning is not practical or desirable, mowing may be a substitute when performed in late fall or very early spring. Fall mowing, however, will deprive wildlife of wintering habitat. To promote sunlight reaching the soil surface the following spring, the mowing should occur at a height of two to four inches and cut material bagged for off-site disposal. As in the first two years, aggressive weeds should be targeted for individual control via selective cutting, digging, and/or herbicide application as appropriate for the species.

Performance Criteria

The intent of the performance criteria is to ensure the establishment of native landscapes that are functional, aesthetic, and relatively weed free. At no time throughout stewardship activities shall invasive native species, non-native species, nor invasive/exotic species be allowed to become established on the site and/or be allowed to colonize.

In all areas, native landscapes shall be maintained with a permanent vegetation cover at all times to minimize erosion. If erosion, rills or gullies are forming, remedial measures should be implemented immediately. If erosion is detected, management practices such as spot dressing/repair, light mulching, and over-seeding or replanting shall be implemented immediately.

The success of the natural landscaping project will be formally evaluated by the following vegetation performance standards monitored over time.

1st Year By the end of the first full growing season, the planted areas should have 90 percent of the cover crop established. 50 percent of the species planted as seed should be present and alive. No upland area (i.e. non-wetland) greater than 1 square meter shall be devoid of vegetation. At least 25% of vegetation cover shall be native, non invasive species. Seeded areas shall have no rills or gullies and basin shorelines shall be adequately protected against erosion. Completed (Year 1) and proposes (Year 2) invasive species control measures shall be laid out in the progress report.

2nd Year During the second growing season, there should be full vegetative cover. A minimum of 60 percent of the permanent species planted in seed form should be evident. If this level of vegetation establishment fails to occur, a determination must be made to why, and a remedial action plan shall be necessary. Remediation shall include overseeding and or plugging of appropriate species. Also, undesirable, invasive plant species shall not be prevalent in the naturally landscaped area. Completed (Year 2) and proposed (Year 3) invasive species control measures shall be laid out in the progress report.

3rd Year At the end of the third full growing season, at least 90% of the vegetation cover shall be native, non-invasive species. Non-native species shall cover no more than 10% of the planted area. The combined relative coverage of thistle (Cirsium spp.), sweet clover (Melilotus spp.) and teasel (Dipsacus spp.) species shall be no greater than 1%. A minimum of 75 percent of the seeded permanent species are expected to be established. (Alternatively, native perennial species that volunteer on the site, excluding the undesirable invasive species, may also be counted in determining the preceding criteria.) Commonly, if the planted species are not evident by the end of the third season, the likelihood of subsequent appearance is

much reduced. Acceptable species defined as native to the region and not invasive (in the Native Plant Guide for Streams and Stormwater Facilities in Northeastern Illinois), shall provide at least 90 percent of the relative aerial coverage. If the identified level of species development fails to occur, a determination must be made as to why, and a remedial action plan must be prepared and submitted to the owner for approval. The approved remedial plan must be implemented and continued monitoring will be required beyond the third growing season until these Performance Criteria are met. Completed (Year 3) and proposed (Year 4 and beyond) invasive species control measures shall be laid out in the progress report.

Long-term Maintenance (Year 4 and beyond)

With ongoing landscape maintenance and management, the plant community should continue to improve over time. As a minimum, though, the site shall continue to meet the vegetation performance standards of the 3rd season, as specified above, with regard to erosion control, vegetation coverage, species diversity, and control of invasive species. At least 90% of vegetation cover shall be native, non-invasive species. Non-native species shall cover no more than 10% of the naturalized area, with the exception of Cattails (Typha spp.) which may represent up to 20% of the area. The combined relative coverage of thistle (Cirsium spp.), sweet clover (Melilotus spp.) and teasel (Dipsacus spp.) species shall be no greater than 1%.

Maintenance Techniques

Mowing

Mitigation areas and buffers may be mowed at a height of 8 inches, approximately three times during the first growing season. Because undesirable weedy species will establish faster than the desired native vegetation mowing a height of 8 inches will allow the weedy species to be cut back without harming the desired native species. Mowing may be used in subsequent growing seasons depending upon weed height and desirable plant height and dominance. Normal turf management type mowing is inappropriate and will result in the loss of native plantings.

Weed Control

Hand pulling or cutting is the preferred method for controlling isolated occurrences of non-native and weedy species which if allowed to spread would hamper the mitigation effort. Selective herbicide treatments may be used to control non-native or weedy species if there is a large area that must be treated or if hand pulling has been ineffective in controlling a specific species. The native seeding/ wetland consultant as part of the monitoring program should identify weed control needs.

Herbicides should be applied by foliar spray taking care to avoid spraying desirable plants. Herbicide application must be performed by a licensed Illinois pesticide applicator.

Prescribed Burning

Prescribed burning is an optional management tool that may be used in the long term management of the mitigation area. Burning shall only be done in large open areas, away from planted trees and shrubs. Plans should be made to conduct a burn after the second (or third) full growing season in either fall or spring, as conditions will allow. Burning should be repeated the following year and then every two to three years thereafter. The native seeding/ wetland

consultant should evaluate vegetation composition and cover to best determine the timing of burns.

Before burning a "Prescribed Burn Plan" will need to be prepared and should include objectives of the burn, acceptable weather conditions, personnel requirements, necessary equipment, and emergency assistance available. An Open Burn Permit would need to be obtained from the Illinois Environmental Protection Agency as well as required local permits. Burns should be done by individuals trained and experienced in carrying out grassland burns.

Emergent Wetland Species Care and Maintenance

Weed control measures are applicable for emergent vegetation. In addition, care in controlling water levels during the species establishment is important. Flooding of the seedlings/plugs for long durations or drought-like conditions will damage or kill the vegetation.

Reporting

An annual monitoring and management report will be prepared evaluating the progress of the naturalized landscape toward performance standards. In addition, the report will document all management activities that have taken place and include recommendations for additional management activities to be undertaken in the following growing season. Annual monitoring reports will be submitted to the municipality by February 15th of the year following the year being documented (i.e. 2020 monitoring report to be submitted by February 15, 2021).

Additionally, the native area consultant should provide recommendations to the responsible parties as needed during the growing season to address problems that arise needing immediate attention or that should be addressed prior to the issuance of the annual report.

Establishment Period Reporting (Years 1-5)

The Owner's Representative or contractor is to submit an annual monitoring report to the municipality by February 15th of the following year evaluating the progress of the naturalized landscape toward performance standards. The report shall include the following:

a. A location map;

b. Summary of annual monitoring observations, including photo documentation where appropriate. Summary to describe the following:

    i. The limits of all vegetation areas by general community type and dominant species within each planting zone (e.g., wetland and prairie zones)

    ii. The five most dominant species within each planting zone

    iii. The approximate percent survival of planted species

    iv. The approximate percent ground cover by native species within each planting zone

    v. The percent ground cover by non-native or invasive species in each planting zone

vi. Any erosion or sedimentation problems

vii. Any water level or drainage problems

viii. Any areas of bare soil larger than 3 square-feet

ix. Observations on specific management strategies necessary to achieve acceptance requirements

c. Description of management performed during the year;

d. Tabular summary of annual progress relative to acceptance standards;

e. List of recommendations for management during the upcoming year;

f. Quarterly observations/inspections of earthen dam embankments, control structures/spillways.

Long Term Reporting (Years 6 and Beyond)

a. Every five years following municipal acceptance of the naturalized landscape plantings, the owner of the property shall submit a report to the municipality on the condition of naturalized landscapes, recommended management actions to correct deficiencies, and a proposed schedule for implementing the recommended actions. Following implementation of corrective actions, documentation is to be provided to the municipality demonstrating that deficiencies have been corrected.

b. Progress reports will detail a short summary of what was observed during the regular monitoring, an assessment of the issues and conditions found on site, and the proposed maintenance activities to address the problems.