Permit Application Review

Permit No. Revised 2018-10
Received complete: ~~March 15, 2018~~ April 9. 2019

Applicant:	Larry Smith; Lifespace Communities
Consultant:	Ryan Bluhm: Westwood Professional Services
Project:	Friendship Village
Location:	S.E. Quadrant of T.H. 169 and I-494: Bloomington
Rule(s):	3,4,5,10,11,12
Reviewer:	BCO

General Background & Comments

Friendship Village is a senior living community located in the southeast quadrant of T.H. 169 and I-494 in Bloomington. The District reviewed and approved a permit for this project at the District's March 21, 2018 meeting. Since then, the project design and plans have been revised in response to various issues that have arisen, and consequently, the stormwater management plan for the project has been modified slightly from the earlier approve plan. These modifications are presented in later paragraphs. The proposed development effects on the existing wetland are the primary reason for the permit revision. The March 15, 2018 project review letter has been modified with the revisions noted in red, allowing the Board to follow proposed changes in the submittal. In addition, the revised submittal is being reviewed using the current amended rules of the District dated May 21, 2018. Work on the project has not commenced.

The project proposes a redevelopment of more than half of the existing campus and is to be constructed in three phases: Phases 1 and 2 will consist of the removal of existing structures and the construction of three buildings. Phase 3 will be the construction of a 65 stall surface parking lot. The Phase 1 building will be 3-stories with lower level parking (74 apartments – 73,144 square feet). Phase 2 will consist of a 166,700 square foot – 2, 3 and 5 story building with lower level parking (98 apartments). In addition, a 3 story, 66,143 square foot building with 66 suites is to be constructed.

NMCWD has previously reviewed and approved permits under its rules adopted in 2008[1] for three other projects, Permits #2010-12; #2013-66; #2014-56, within Friendship Village that triggered NMCWD stormwater-management requirements. Those projects combined have

[1] The operation of the common scheme of development provision in the NMCWD rules is limited to work that has taken place since the substantially revised NMCWD rules were adopted in March 2008.

increased the site impervious area by 3,281 square feet. The disturbed and replaced impervious area is 95,636 square feet.

Under paragraph 4.2.5 of the NMCWD rules, "[a]ctivity subject to [the stormwater] rule on a parcel or adjacent parcels under common or related ownership will be considered in the aggregate, and the requirements applicable to the activity under this rule will be determined with respect to all development that has occurred on the site or on adjacent sites under common or related ownership." The common scheme of development provision requires the changes to impervious surface and resulting runoff within the Friendship Village property be considered in the aggregate with the prior impervious disturbance and redevelopment that has been permitted by the District since 2008.

The project site information is:

- Total Site Area: 25.1 acres (post MnDOT property acquisition)
- Site Impervious Area (prior to 2008): 13.6 acres (since 2008 approximately 0.6 acres has been acquired by MnDOT for T.H. 169)
- Proposed Disturbed Area for present project (2018): 8.2 acres
- Aggregate Increase in Impervious Area from 2008-Present (prior to present proposal): 3,218 square feet
- Proposed Project New Impervious Area: ~~52,272~~ 47,916 square feet
- New Site Impervious Area total: ~~55,553~~ 51,134 square feet
- Aggregate % increase in Impervious Area (2008 –Present including Project): ~~9.4%~~ 9.0%
- Aggregate Impervious Area Disturbed and Reconstructed from 2008-Present (prior to present proposal): 95,636 square feet
- Proposed Disturbed and Reconstructed Impervious Area for present project: 191,664 square feet
- Site Impervious Disturbed and Reconstructed total: 287,300 square feet
- Aggregate % of Impervious Area Disturbed and Reconstructed (2008 – Present including Project): 48.5%

As noted, since the work will result in an aggregate total of less than 50% of the existing site impervious area will be disturbed and the proposed aggregate increase in site impervious area is less than 50%, in accordance with Rule 4.2.3, Redevelopment, the storm water requirements of Rule 4.3 apply only to the new and reconstructed impervious area, ~~243,936~~ 239,580 square feet.

The District's requirements for erosion and sediment control apply to the project because more than 50 cubic yards of material will be disturbed and 5000 square feet or more of surface area will be disturbed, Rule 5.2.1a and b.

Within the project area, ~~0.64~~ 0.51acres of an existing 1.93 acre pond, identified as a medium value wetland, are proposed to be filled. The City of Bloomington is the Local Governmental Unit administering the requirements of the Wetland Conservation Act. The wetland impacts are

to be replaced off-site through the purchase of wetland bank credits ~~however the plan also proposes to remove two townhomes along the southern edge of the wetland and expand the onsite wetland by approximately 22,000 square feet.~~ The WCA sequencing and replacement plan has been approved by the City of Bloomington. Being a medium value wetland, the District's buffer requirements, Rule 3.4.1b, require a 20 foot minimum and 40 foot average buffer. The existing wetland buffer is approximately 44,300 square feet providing an average buffer width of 38.6 feet. To comply with the District's 40 foot average buffer, the required buffer area would need to be approximately 46,000 square feet. The proposed plan will provide an approximate ~~40,000~~ 33,558 square foot buffer riparian to the wetland having an average buffer width of 34.8 feet. The shortfall from the average buffer requirement results in a loss of approximately ~~4,342~~ 10,742 square feet of existing buffer and a shortfall of approximately ~~6,000~~ 12,442 square feet from required buffer. The applicant is requesting a variance from compliance with the required average 40 foot buffer width. The figure attached shows the previously approved wetland configuration and buffer area to be provided and the proposed wetland/buffer configuration with the townhouse units remaining in-place. The applicant's variance request is presented in the Westwood correspondence dated March 19, 2019 (attached).

On the northern end of the wetland for a distance of approximately ~~350~~ 330 feet adjacent to the proposed building, a buffer width of zero (0) feet is to be shown to be provided. Between the building footprint and a proposed 5 foot high retaining wall defining the wetland boundary at its base, a 10 foot wide passageway will be located for emergency vehicle access. The applicant is also requesting a variance from the 20 foot minimum buffer required by section 3.4.1b of the District Rules.

The plans show that both underground storm water management facilities (UGSWMF) and a surface storm water basin (BMP's) will be constructed to comply with the requirements of section 4.3.1 of the District Rules, Stormwater Management. The water quality improvement that will be achieved through the Friendship Village project's compliance with the NMCWD stormwater management requirements will help protect the natural area to the south of the site (downstream)~~., which is designated by the Minnesota County Biological Survey as an area with high biodiversity significance. This natural area south of Highwood Drive includes a sphagnum rich fen basin and sedge meadow areas surrounded by oak, basswood and black ash forest communities.~~

Silt fence, biologs, inlet protection and rock construction entrances are to be constructed for erosion control.

Exhibits

1. Permit Application dated January 29, 2018.
2. Plans dated March 2, 2017, revised February 27, 2019, prepared by Westwood Professional Services.
3. Storm Water Management Plan dated February, 2018, revised April 3, 2019 prepared by Westwood Professional Services.
4. February 2, 2018 correspondence prepared by Westwood Professional Services requesting a variance from the District's Buffer requirements and addressing section 10.1.1-10.1.4 of the District Rules.

5. Geotechnical Report dated November 23, 2016 prepared by Bran Intertec.
6. E-mail correspondence dated February 23, 2018 requesting additional information for the submittal to be considered complete.
7. Documentation submitted March 3rd and March 15, 2018 to address the additional information requested in the District February 23, 2018 e-mail.
8. Correspondence dated March 28, 2019 from Westwood Professional Services requesting a variance from the District's buffer requirements for the revised plans submitted.
9. Wetland Functional Assessment Summaries for existing and proposed conditions prepared by Westwood Professional Services.
10. Buffer Construction, Seeding and Vegetation Management Plan prepared by Westwood Professional Services.

3.0 Wetlands Management

As noted, Bloomington has ~~issued~~ approved a sequencing and replacement-plan ~~notice determination~~ application for wetland fill proposed for the project. In accordance with section 3.2 of the rule, though, NMCWD's wetland buffer requirements apply independently because the proposed work triggers rules 4.0 Stormwater management and 5.0 Erosion and Sediment Control.

As previously discussed, the project as proposed includes a shortfall from both the minimum, 20 feet, and average, 40 feet, buffer requirements for the on-site medium value wetland, and the applicant has requested approval of variances. Analysis of the request under Rule 10.0 is provided below. The disturbed areas of the buffer are to be restored with a native upland seed mixture in accordance with paragraph 3.4.6. The Buffer Construction, Seeding, and Vegetation Management Plan included in the Wetland Permit Application for the project describes soil preparation required, the State Seed Mixtures (35-241) Mesic Prairie General and (34-181) Emergent Wetland to be used and the two year vegetation management plan to be undertaken by the permit applicant. It is recommended that a third year be added to the proposed maintenance management plan to comply typical management plans undertaken by the District for buffer restoration projects. Buffer areas not disturbed by the project will be managed to control invasive species such as buckthorn, elm thistle and garlic mustard in accordance with 3.4.6. The installation of the required wetland buffer markers to comply with 3.4.5 is also included in the Wetland permit application for the project.

4.0 Stormwater Management

The BMP's proposed will provide for volume retention, rate control and water quality management. There are two discharge points from the site. The existing and proposed 2, 10 and 100 year frequency discharges from the site are:

Frequency	Existing Discharge Point to the North c.f.s.	Proposed Discharge Point to the North c.f.s.
2 year	1.7	<1.0
10 year	3.2	<1.0
100 year	6.4	<1.0

Frequency	Existing Discharge Point to the South c.f.s.	Proposed Discharge Point to the South c.f.s.
2 year	1.5	1.2
10 year	4.8	4.3 ~~4.5~~
100 year	15.2	15.2 ~~14.0~~

For volume retention, a volume of ~~20,328~~ 21,962 cubic feet is required from 1.1inches of runoff from the ~~243,936~~ 239,500 square feet of new and reconstructed impervious area created by the project. The required retention volume in the previous submittal was based on a runoff of 1.0 inches of runoff from the impervious area of the site. The proposed new site impervious area has decreased slightly but the current rules requiring volume retention from 1.1 inches of runoff has been used. This has resulted in a few of the proposed BMP's to be increased in size to accommodate the additional runoff volume. The geotechnical report shows that underlying on-site soils are primarily silty-sand (SM). An infiltration rate of 0.45 inches/hour was used which is typical for a SM soil type material using the Minnesota Storm Water Manual. An area of ~~11,293~~ 12,201 square feet is required for volume retention using the 0.45 inches/hour infiltration rate. The UGSWMF's and surface basin provide a volume of ~~20,647~~ 23,870 cubic feet (~~20,328~~ 21,962 cubic feet required) and an area of ~~14,811~~ 15,770 square feet (~~11,293~~ 12,201 square feet required.) Section 4.3.1a of the District Rules is met.

The District's water quality criteria (Rule 4.3.1c) require a 60% annual removal efficiency for phosphorus and 90% annual removal efficiency for total suspended solids. A P8 model was used to determine that the proposed BMP's will provide an annual removal efficiency of ~~82.9~~% 82.6% for phosphorus (~~17.4~~ 17.1 lbs.) and ~~98.6%~~ 97.9% annual removal efficiency for total suspended solids (~~6,610~~ 6,451 lbs.). We are in agreement with the model results. The requirements of section 4.3.1c of the District rules are met.

The soil borings indicate that groundwater was encountered at approximately elevation 840 M.S.L. The vertical separation between the proposed BMP's and groundwater range from ~~7.7~~ 3.7 feet to 13 feet. ~~For BMP 2, where groundwater was not encountered to elevation 837.6 M.S.L., a minimum separation of 5.2 feet will be provided~~. A minimum of 3 feet of separation is required between the low point of an infiltration area and groundwater.

Rule 4.3.2 requires the low floor elevation of the structure to be a minimum of 2 feet above elevation ~~846.4~~ 846.5 M.S.L., the 100-year frequency flood elevation of the on-site wetland area. The plans show the finish floor elevation of the building garage (low floor) will be

elevation of 848.5 M.S.L., a separation of 2.1 feet. The minimum 2 foot of separation is to be provided. To comply with the City of Bloomington's requirements of maintaining a 0.5 foot of bounce in the flood elevation of the wetland, a cistern is to be constructed beneath the building to provide 0.9 acre-feet of addition flood storage. Controlling the bounce will minimize potential impacts that could result in a change in the functions and values of the wetland with water levels maintained at a higher elevation for an extended period of time or potentially result in a change in wetland type. The 100-year frequency flood elevation of the cistern is also 846.5 – 2.0 feet of separation provided.

In addition, District Rule 4.3.3 states that all new and reconstructed buildings must be constructed such that no opening where surface water can enter the structure is less than two feet above the 100-year high water elevation of an adjacent facility or waterbody. The finished floor elevations listed above are also the low openings of the structures. This requirement of paragraph 4.3.3 is met.

In accordance with section 4.3.1a I of the District rules, sump manholes in the storm sewer infrastructure are to be provided for pretreatment of storm water prior to discharging to the UGSWMF.

In accordance with Rule 4.3.4, a post-project chloride management plan must be provided that will, 1) designate an individual authorized to implement the chloride-use plan and 2) designate a MPCA certified salt applicator engaged in the implementation of the chloride-use plan for the site.

5.0 Erosion and Sediment Control

The submitted erosion and sediment control plan includes silt fence, biologs, inlet protection and a gravel construction entrance. The project contact is Ryan Bluhm, Westwood Professional Services.

10.0 Variances and Exceptions

A variance request for compliance with Rule 3.4.1b (attached) has been prepared by Westwood Professional Services on behalf of the permit applicant to address Rules 10.1 – 10.4. The variance request cites in support of the request, among other facts and factors that 1) the existing buffer requirements are currently not being met by the existing development, 2) the Friendship Village development was in-place prior to the District's buffer requirements, 3) the water quality of the wetland will improve as a result of the project by reducing the area of untreated storm water being discharged to the wetland from 16 acres to 3.4 acres, and 4) the management of the invasive species within the buffer area that will not be altered by the construction.

It is left to the managers to determine as to whether the applicant's assertions as to whether the property has inherent unique conditions such that strict application of the buffer requirements will cause undue hardship, not mere inconvenience (10.1.1) and that the hardship was not created by the landowner and is not solely economic (10.1.2) Further, it is the manager's discretion to determine whether the applicant has made a sufficient showing that there is no feasible and prudent alternative to the proposal that would avoid the need for the variances (10.1.4).

As to whether granting the variance will cause material harm to water resources and other values protected by the buffer rule (10.1.3): NMCWD requires wetland buffer because of the multiple water-resource protection benefits it provides. Its function values include water quality management, groundwater interaction (because the soils are usually more conducive to infiltration in a buffer than the wetland), aquatic and wildlife protection, aesthetics and open space and education. The most quantifiable is water quality management. Currently, runoff from the existing development is discharged directly into the wetland without treatment. The redevelopment proposal includes storm sewer reconstruction that incorporates BMP's that provide volume retention, rate control and water quality management. Stormwater – including roof runoff from the building adjacent to the wetland and the 10-foot wide passageway between the building and the wetland – will be treated prior to being discharged to the wetland. All such stormwater management is required by NMCWD Rule 4.0 and section 3.5 of the wetland rule; the applicant is exceeding NMCWD stormwater-management requirements only to the extent described above under section 4.0. However, to the extent the wetland buffer is provided to treat stormwater entering the wetland, such functions are achieved by the proposed stormwater-management system because all runoff that discharges to the wetland under current conditions will be routed away from the wetland to the on-site stormwater – management facilities. While this is a function of compliance with the NMCWD stormwater-management requirements, it diminishes the potential harm to the wetland from the proposed shortfall from the buffer average and minimum standards.

Westwood completed a wetland functional assessment comparison of existing conditions versus proposed conditions which was reviewed by the District engineer. This comparison indicates that the proposed project will result in improvements to the wetland's hydrologic regime, flood/stormwater attenuation, water quality, vegetation, wildlife, fish and amphibian habitat, aesthetics and recreation. Copies of these assessments as attached for reference.

11.0 Fees

Fees for the project are:

Rules 2.0-6.0	$1000

12.0 Financial Assurances

Financial Assurances for the project are:

Rule 4.0 Volume Retention: ~~11,293~~ 12,122 sq. ft. x ~~$6~~ 12/sq. ft. = ~~$67,758~~	$145,464
Chloride Management:	$5000
Rule 5: Silt fence: 4,305 L.F. x $2.50/L.F.= $10,763	
Inlet Protection: 2 L.F. x $100/each = $200	
Site restoration: 8.2 acres x $2500/acre = $20,500	$31,463
Contingency and Administration	~~$42,779~~ $76,173

Findings

1. The proposed project includes the information necessary, plan sheets and erosion control plan, for review.

2. Rules 4 and 5 are met.

   The applicant is requesting a variance from compliance with Rule 3.4.1b, average and minimum requirements, as applied to the project. The buffer as proposed will range from 0 feet to ~~75~~ 80 ~~-~~feet with an average buffer width of ~~34.8~~ 31 feet.

Recommendation

Should the Board approve of the revised permit for this project, we recommend that the ~~A~~ approval be contingent upon:

1. General Conditions

1. ~~Financial Assurance in the amount of $142,000~~. Financial Assurance in the amount of $258,100 - $253,100 for stormwater management, erosion control and site restoration and $5,000 for compliance with the chloride management requirements.
2. Submission of documentation that a drainage easement over the stormwater-management facility has been submitted to Bloomington (4.5.4i), if such easement is required by the city.
3. A receipt showing recordation of a maintenance declaration for the on-site storm water management facility and wetland buffer. A draft of the declaration must be approved by the District prior to recordation.

By accepting the permit, when issued, the applicant agrees to the following stipulations:

1. Per Rule 4.5.6, an as-built drawing of the storm water facilities, including a stage-volume relationship in tabular form for the bio-filtration basin, conforming to the design specifications as approved by the District must be submitted.
2. Submission of a plan for post-project management of Chloride use on the site. The plan must include 1) the designation of an individual authorized to implement the chloride use plan and 2) the designation of a Minnesota Pollution Control Agency certified salt applicator engaged in the implementation of the chloride-use plan for the site. The release of the $5,000 of the financial assurance required for the chloride-management plan requires that chloride-management plan has been provided and approved by the District's Administrator.
3. For the release of the ~~$142,000~~ $253,100 financial assurance required in Recommendation #2, Rule 12.4.1b requires demonstration and confirmation that the storm water management facilities have been constructed or installed and are functioning as designed and permitted. Verification, through daily observation logs and photographs, must be provided showing the storm water facilities used for volume retention have drawn down within 48 hours from the completion of two 1-inch (approximate) separate rainfall event.
4. Buffer markers installed in accordance with Rule 3.4.5.

Board Action

It was moved by Manager _____, seconded by Manager _____ to approve permit application Revised No. 2018-10 with the conditions recommended by staff.

Permit #: Revised 2018-10
Project Name: Friendship Village Redevelopment: Bloomington
Approval Date: April 17, 2019

General Provisions

1. All temporary erosion control measures shown on the erosion and sedimentation control plans must be installed prior to commencement of surface or vegetation alteration and be maintained until completion of construction and vegetation is established as determined by NMCWD.

   If silt fence is used, the bottom flap must be buried and the maximum allowable spacing between posts is 4-foot on center. All posts must be either 2-inch x 2-inch pine, hardwood, or steel fence posts. If hay bales are used, all bales must be staked in place and reinforced on the downstream side with snow fence.

2. All areas altered because of construction must be restored with seed and disced mulch, sod, wood fiber blanket, or be hard surfaced within two weeks after completion of land alteration and no later than the end of the permit period.

3. Upon final stabilization, the permit applicant is responsible for the removal of all erosion control measures installed throughout the project site.

4. At the entryway onto the site, a rock filter dike being a minimum of two feet in height and having maximum side slopes of 4:1 must be constructed. This rock filter dike will enable construction traffic to enter the site and also provide an erosion control facility.

5. If dewatering is required and sump pumps are used, all pumped water must be discharged through an erosion control facility prior to leaving the construction site. Proper energy dissipation must be provided at the outlet of the pump system.

6. The NMCWD must be notified a minimum of 48 hours prior to commencement of construction.

7. The NMCWD, its officers, employees and agents review, comment upon, and approve plans and specifications prepared by permit applicants and their consultants for the limited administrative purpose of determining whether there is reasonable assurance that the proposed project will comply with the regulations and criteria of the NMCWD. The determination of the NMCWD that issuance of this permit is appropriate was made in reliance on the information provided by the applicant.

8. The grant of this permit shall not in any way relieve the permittee, its engineer, or other professional consultants of responsibility, nor shall it make the NMCWD responsible for the technical adequacy of the engineer's or consultant's work. The grant of this permit shall not relieve the permittee from complying with all conditions and requirements of the permit which shall be retained by the permittee with the permit.

9. The issue of this permit does not convey any property rights in either real or personal property, or any exclusive privileges, nor does it authorize any injury to private property or any invasion of personal rights, nor any infringement of federal, state, or local laws or regulations.

10. This permit is permissive only. No liability shall be imposed upon the NMCWD or any of its officers, agents or employees, officially or personally, on account of the granting of this permit or on account of any damage to any person or property resulting from any act or omission of the permittee or any of its agents, employees, or contractors.

11. In all cases where the doing by the permittee of anything authorized by this permit shall involve the taking, using, or damaging of any property, rights or interests of any other person or persons, or of any publicly-owned lands or improvements or interests, the permittee, before proceeding therewith, shall obtain the written consent of all persons, agencies, or authorities concerned, and shall acquire all necessary property, rights, and interest.

12. The permit is transferable only with the approval of the NMCWD (see NMCWD Rule 1.0). The permittee shall make no changes, without written permission previously obtained from the NMCWD, in the dimensions, capacity, or location of any items of work authorized by this permit.

13. The permittee shall grant access to the site at all reasonable times during and after construction to authorized representatives of the NMCWD for inspection of the work authorized by this permit.

14. This permit may be terminated by the NMCWD at any time deemed necessary in the interest of public health and welfare, or for violation of any of the provisions of this permit.

15. Construction work authorized under this permit shall be completed on or before date specified above. The permittee may, in writing, request that the NMCWD extend the time to complete the project in accordance with NMCWD Rule 1.0.

Westwood

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MEMORANDUM

Date: March 28, 2019

Re: NMCWD Variance Language
File 009018.00

To: Randy Anhorn, Nine Mile Creek Watershed District

From: Ryan Bluhm

Lifespace Communities ("Lifespace") is proposing the expansion of their existing Friendship Village senior living community in Bloomington, Minnesota to add a new 93-unit Residential Living (RL) building and a new 3-story Healthcare Center, which will house 32 Memory Support (MS) suites, 42 assisted living suites, 16 short term nursing suites, 50 skilled nursing beds, and will also include a commons area (together, the "Project"). The purpose of the Project is to meet the existing and future demand for senior living apartments and health services on the existing Friendship Village campus and in the surrounding community.

Attached for your review and consideration are the amended final grading, erosion control and stormwater plans for the Friendship Village Project. In 2018, Lifespace proposed an earlier iteration of the Project for which NMCWD, the USACE, and city of Bloomington ("City") as the WCA LGU approved a total of 0.64 acres of wetland impact to facilitate the construction of the residential living building and required safety ingress and egress to the new RL structure. A total of 1.28 acres of wetland credit was purchased by Lifespace Communities and withdrawn from the State Wetland Bank, which served as replacement for the 0.64 acres of approved impacts. As proposed today, the revised wetland impact of the Project is 0.51 acres, a reduction of 0.13 acres.

In association with the 2018 Project design, Lifespace had proposed to expand the pond a total of 21,653 square feet. However, the earlier Project design required the removal of two townhomes along the southern edge of the pond. In response to concerns raised by residents, and in an effort to accommodate the existing townhomes, Lifespace is now proposing to eliminate the pond expansion. In lieu of the pond expansion, Lifespace will be providing overflow storage volume below the RL building to meet the required rate control requirements. The volume provided is utilized during storm events, and is not a permanent volume of standing water.

The current surface area of Wetland 1 is 82,621 square feet. When considering the proposed wetland impact, the final surface area of the wetland/pond will be 54,743 sf. Exhibit 12 provides details of the proposed wetland buffer areas. As a medium value wetland, the NMCWD requires a 20-foot minimum, 40-foot average buffer width adjacent to Wetland 1.

However, because of the site constraints, and the unique conditions and requirements of the Project, the establishment of a 40-foot average buffer width is not possible in the context of the Project. Additionally, the proposed plan will not be able to provide a 20-foot minimum buffer adjacent to the RL Building. In order to minimize the amount of wetland fill created as part of the Project, it was the express preference of BWSR staff and the City to reduce the buffer to zero (0) feet. As such, the Applicant is requesting a variance from strict compliance of the NMCWD buffer rule.

Lifespace's variance request satisfies the required findings under section 10.0 of the Nine Miles Creek Watershed District Rules.

10.1.1 That because of unique conditions inherent to the subject property, which do not apply generally to other land or structures in the District, undue hardship on the applicant, not mere inconvenience, will result from strict application of the rule;

Lifespace is constrained by an established and developed site that already falls below the minimum requirement for buffer. These circumstances are a unique condition that is inherent to the subject property. A strict application of the buffer rule would require the removal or realignment of portions of the main road through the site, removal of additional existing townhomes, preclude the construction of the RL facility, and would severely limit the ability to provide additional living and health facilities currently lacking on the site. If Lifespace were to provide the buffer along the south side of the RL facility, it would result in additional and unnecessary impacts to the wetlands.

10.1.2 That the hardship was not created by the landowner, the landowner's agent or representative, or a contractor, and is unique to the property. Economic hardship alone may not serve as grounds for issuing a variance if any reasonable use of property exists under the terms of the District rules;

The current hardship was not created by the landowner. Friendship Village is an established senior living community in a confined land area with housing and road infrastructure already in place around the existing wetland. Even if no improvements were made to the site, the existing conditions are such that the current average "buffer" width adjacent to Wetland 1 is approximately 38.6 feet (Exhibit 12). Additionally, untreated stormwater is currently directed into Wetland 1. Furthermore, the site is constrained by height and bulk regulations under the City zoning ordinance which preclude Lifespace from building upwards in other locations on the property.

10.1.3 That the activity for which the variance is sought will not materially adversely affect water resources, flood levels, drainage or the general welfare in the District;

The proposed Project will not materially adversely affect water resources, flood levels, drainage, or the general welfare of the watershed district. Rather, downstream water quality is likely to improve as a result of the Project because the acreage of untreated stormwater directed to Wetland 1 will be reduced from 16 acres to 3.39 acres. With the proposed improvements, the reduction of direct, untreated stormwater input should significantly off-set any negative effect on the wetland from the limited buffer removal. Furthermore, runoff that

may have been partially treated via the vegetated buffer in this area will be routed through the underground storage and treatment system so the water quality function that this buffer area may currently provide will be replaced with the improved stormwater system.

Typically the value of vegetated buffer adjacent to wetlands is to function to filter surface runoff from adjacent areas before reaching the wetland. Currently the existing buffer, particularly along the north side of the pond where the proposed buffer impact is the greatest, only provides this filtration function for runoff from the top of the vegetated slope down to the wetland. Surface runoff from area streets and buildings is not directed across this vegetated slope but is routed through storm drains directly into the wetland, effectively avoiding interaction with the current vegetated buffer.

The pond currently receives 16 acres of untreated runoff and provides rate control and treatment before discharging to the south via a 24-inch culvert. Under the proposed conditions, an infiltration basin and three underground stormwater systems will be added which will provide a significant improvement to the wetland water quality. In the proposed plan, Lifespace is leaving some of the existing buffer along the west, east, and south sides of Wetland 1 undisturbed. As such, a total of 42,056 square feet of buffer is provided with this plan which is 2,286 square feet less than the 44,342 square feet of buffer currently adjacent to Wetland 1. While it would be possible to construct an additional 6,446 square feet of buffer along the south of the RL building, constructing such a buffer would be at the expense of additional wetland fill, which is contrary to the intent of the NMCWD's rules. This option, while eliminating buffer along a segment on the north side of the wetland, is the best option to minimize wetland impact, rather than impacting more wetland in order to provide buffer. Disturbed buffer areas will be seeded with an appropriate native upland seed mix such as State Seed Mix 35-241-Mesic Prairie General or similar and will also incorporate tree and shrub landscape plantings. NMCWD buffer areas that are not disturbed during construction will be managed to control invasive species, such as common buckthorn, Siberian elm, thistle and garlic mustard.

In order to mitigate the impacts of the wetland fill on the water levels, a stormwater storage cistern is proposed below the underground parking of the RL building. The cistern would be 20,300 square feet in area (75 percent of the footprint of the underground parking level) and be four feet in depth below the underground garage. The stormwater cistern would have the capacity for temporary stormwater detention for rain events ranging from the 2-year (50% chance) to back-to back 100-year (<1% chance). By including the cistern, the revised plan limits the bounce of the overall pond to six inches or less consistent with Department of Natural Resources (DNR) guidelines.

10.1.4 That there is no feasible and prudent alternative to the proposed activity requiring a variance;

As discussed above, creating additional buffers would come at the expense of additional wetland fill. The only alternative would be to expand the pond, which would eliminate townhomes. While the proposed plan does not meet the NMCWD buffer width requirements to the letter, the net value improvement to the wetland function is likely greater because it significantly reduces the degrading effect of untreated stormwater input, expands the wetlands

stormwater management functions, and significantly increases the recreational value of the wetland with pedestrian trails near the wetland. With the proposed development, most stormwater will now be pre-treated before entering the wetland, which should significantly improve wetland water quality. Additionally, existing buffer around the west, east, and south of the wetland will be preserved and restored. Flood levels will not be affected by this loss of buffer or wetland as the ponding volume and treatment lost to the wetland fill will be compensated within the underground stormwater basins and with the storage chamber below the residential living building. Similarly, the lost functions that the buffer and wetland provide in facilitating drainage across the site will be compensated within the stormwater management system so that no increased flooding occurs as a result of lost wetland and buffer areas. Because of the need to site the residential housing in proximity to other services on the campus, there is no other feasible alternative to siting the building on the wetland edge and consequently impacting required buffer.

The proposed buffer seeding plan and landscape plan are depicted on Exhibit 12. The established buffers will be indicated by permanent, free-standing markers at the buffers upland edge. A marker will be placed along each lot line at intervals of no greater than 200 feet. Undisturbed buffer areas will be managed in a naturalized condition to encourage growth of native vegetation and eliminate invasive species and no structures shall be placed within the buffer. The buffer will be documented by a declaration approved by the District and recorded in the office of the county recorder.

BUFFER CONSTRUCTION, SEEDING, AND VEGETATION MANAGEMENT PLAN

Friendship Village, Bloomington, Minnesota

SEEDING NOTES

1. SILT FENCE SHALL BE INSTALLED PRIOR TO CONSTRUCTION AND MAINTAINED UNTIL VIABLE COVER HAS ESTABLISHED. SILT FENCE SHALL BE REMOVED UPON FINAL ACCEPTANCE BY THE ENGINEER.

SEEDBED PREPARATION

1. PRIOR TO SEEDING, THE CONTRACTOR SHALL KILL AND PLOW OR DISC UNDESIRABLE VEGETATION THAT COVERS MORE THAN 25 PERCENT OF THE GROUND IN THE AREA TO BE SEEDED.
2. THE SEEDBED SHALL BE PREPARED BY LOOSENING TOPSOIL TO A MINIMUM DEPTH OF 3 INCHES.
3. THE CONTRACTOR SHALL CONTACT THE ENGINEER/ENVIRONMENTAL SCIENTIST PRIOR TO THE START OF SEEDING.
4. SEEDING SHALL NOT BE CONDUCTED BETWEEN JULY 10 AND AUGUST 20.

SEED MIXTURES AND RATES

5. THE CONTRACTOR SHALL SEED: STATE SEED MIX 35-241 (MESIC PRAIRIE GENERAL) (or similar) SHALL BE SEEDED WITHIN DESIGNATED DISTURBED BUFFERS AROUND WETLAND 1. STATE SEED MIX 34-181 (EMERGENT WETLAND) (OR SIMILAR) SHALL BE SEEDED WITHIN1 FOOT ABOVE AND BELOW OF THE PROPOSED NWL OF THE WETLAND/POND FOR AREAS DISTURBED FROM CONSTRUCTION.
6. SEED MIXES SHALL BE INSTALLED AT THE RATES SPECIFIED BELOW:

State Seed MIX	LBS. PURE LIVE SEED/ACRE
35-241 (Mesic Prairie General)	11.5
34-181 (Emergent Wetland)	5

7. SUBSTITUTIONS OF SIMILAR SPECIES OR MIXES MUST BE APPROVED BY THE ENVIRONMENTAL SCIENTIST.

SEEDING METHODS

8. SEED MIXES SHALL BE INSTALLED IN ACCORDANCE WITH:
   - *RESTORING & MANAGING NATIVE WETLAND & UPLAND VEGETATION* (JACOBSON, 2006, MINNESOTA BOARD OF WATER & SOIL RESOURCES (BWSR) AND MINNESOTA DEPARTMENT OF TRANSPORTATION [see http://www.bwsr.state.mn.us/wetlands/publications/nativewetveg.pdf]),
   - *2014 SEEDING MANUAL* (MINNESOTA DEPARTMENT OF TRANSPORTATION OFFICE OF ENVIRONMENTAL STEWARDSHIP, 2014 [see http://www.dot.state.mn.us/environment/erosion/pdf/seedingmanual.pdf]), AND
   - *STANDARD SPECIFICATIONS FOR CONSTRUCTION, 2014 EDITION* (MINNESOTA DEPARTMENT OF TRANSPORTATION, 2014).
   - *MINNESOTA WETLAND RESTORATION GUIDE, 2012. http://bwsr.state.mn.us/restoration/index.html*

9. SEED MIXES SHALL BE BROADCAST EVENLY OVER THE SEEDBED BY HAND, BY USE OF A MECHANICAL "CYCLONE" SEEDER, OR SEEDED WITH A NATIVE GRASS DRILL.
10. SEEDED AREAS SHALL BE FIRMED WITH A ROLLING-TYPE PACKER WITHIN TWO DAYS AFTER SEEDING.
11. SEEDED AREAS SHALL BE MULCHED WITH MN/DOT TYPE 3 (MCIA CERTIFIED WEED FREE GRAIN STRAW) MULCH AT A RATE OF 2 TONS PER ACRE AND THE MULCH SHALL BE ANCHORED WITH A DISC OR TACKIFIER.

BUFFER CONSTRUCTION, SEEDING, AND VEGETATION MANAGEMENT PLAN

Friendship Village, Bloomington, Minnesota

VEGETATION MANAGEMENT PLAN

Vegetation within the designated buffer be managed for a period of two years to establish native seeding and control invasive species. Vegetation within disturbed buffer areas will include the following components:

1. Designated buffer areas will be seeded with Mesic Prairie General native seed mix (or comparable mix) as shown on **Exhibit 12**. Wetland seeding areas are also noted in Exhibit 12.
2. The seedbed preparation, seed mix application rates, and seeding methods to be used are detailed in the Construction and Seeding Notes included in Appendix D
3. A temporary cover crop of oats or winter wheat (depending on seeding dates) will be incorporated into the specified seed mixes to stabilize soils until native species establish.
4. If noxious weeds and invasive non-native species are identified within the buffers during the two-year period, reasonable efforts will be made to control these species using appropriately timed herbicide applications or other methods. While reasonable steps are proposed, it should be recognized that buckthorn and garlic mustard control remains experimental and that effective control of these species cannot be guaranteed. The following steps will be considered for treatment of non-native species during the first two years after seeding.

Year 1 Maintenance

1. The seeded buffer areas shall be mowed to a height of 4 to 6 inches a minimum of two times during the first growing season and before September 30.
2. Purple loosestrife shall be pulled by hand if it comprises less than 5% of the wetland cover, and spot sprayed with Rodeo herbicide during late August or September if it covers 5% or more of the replacement wetland.
3. Invasive and non-native species in designated buffer shall be spot sprayed twice annually at times that are particularly effective given the problem species.
4. All herbicide treatments shall be applied according to label instructions.

Year 2 Maintenance

1. Areas of invasive species shall be treated with herbicide early in spring prior to the emergence of desirable species.
2. The seeded buffer shall be mowed to a height of 6 to 8 inches between June 1 and July 15 to allow for light penetration to seeded species and prevent seed set on weedy species.
3. Other invasive and non-native species in designated buffer shall be spot sprayed twice annually at times that are particularly effective for problem species.
4. All herbicide treatments shall be applied according to label instructions.

Proposed

Wetland Functional Assessment Summary

Wetland Name	Hydrogeomorphology	Maintenance of Hydrologic Regime	Flood/ Stormwater/ Attenuation	Downstream Water Quality	Maintenance of Wetland Water Quality	Shoreline Protection
Wetland 1	Depressional/Flow-through (apparent inlet and outlet), Depressional/Flow-through (apparent inlet and outlet)	0.55	0.56	0.47	0.51	0.00
		Moderate	Moderate	Moderate	Moderate	Not Applicable

	Additional Information								
Wetland Name	Maintenance of Characteristic Wildlife Habitat Structure	Maintenance of Characteristic Fish Habitat	Maintenance of Characteristic Amphibian Habitat	Aesthetics/ Recreation/ Education/ Cultural	Commercial Uses	Ground-Water Interaction	Wetland Restoration Potential	Wetland Sensitivity to Stormwater and Urban Development	Additional Stormwater Treatment Needs
Wetland 1	0.45	0.65	0.32	0.64	0.00	Combination Discharge, Recharge	0.00	0.10	0.51
	Moderate	Moderate	Low	Moderate	Not Applicable		Not Applicable	Moderate	Moderate

Wetland Community Summary

		Vegetative Diversity/Integrity							
		Community							
Wetland Name	Location	Cowardin Classification	Circular 39	Plant Community	Wetland Proportion	Individual Community Rating	Highest Wetland Rating	Average Wetland Rating	Weighted Average Wetland Rating
Wetland 1	27-116-21-18-001	PUBG	Type 5	Shallow, Open Water Communities	0	0.1	0.10	0.10	0.00
							Low	Low	Not Applicable
							0.10	0.10	0.00 ☐

☑ *Denotes incomplete calculation data.*

Existing Conditions

Wetland Functional Assessment Summary

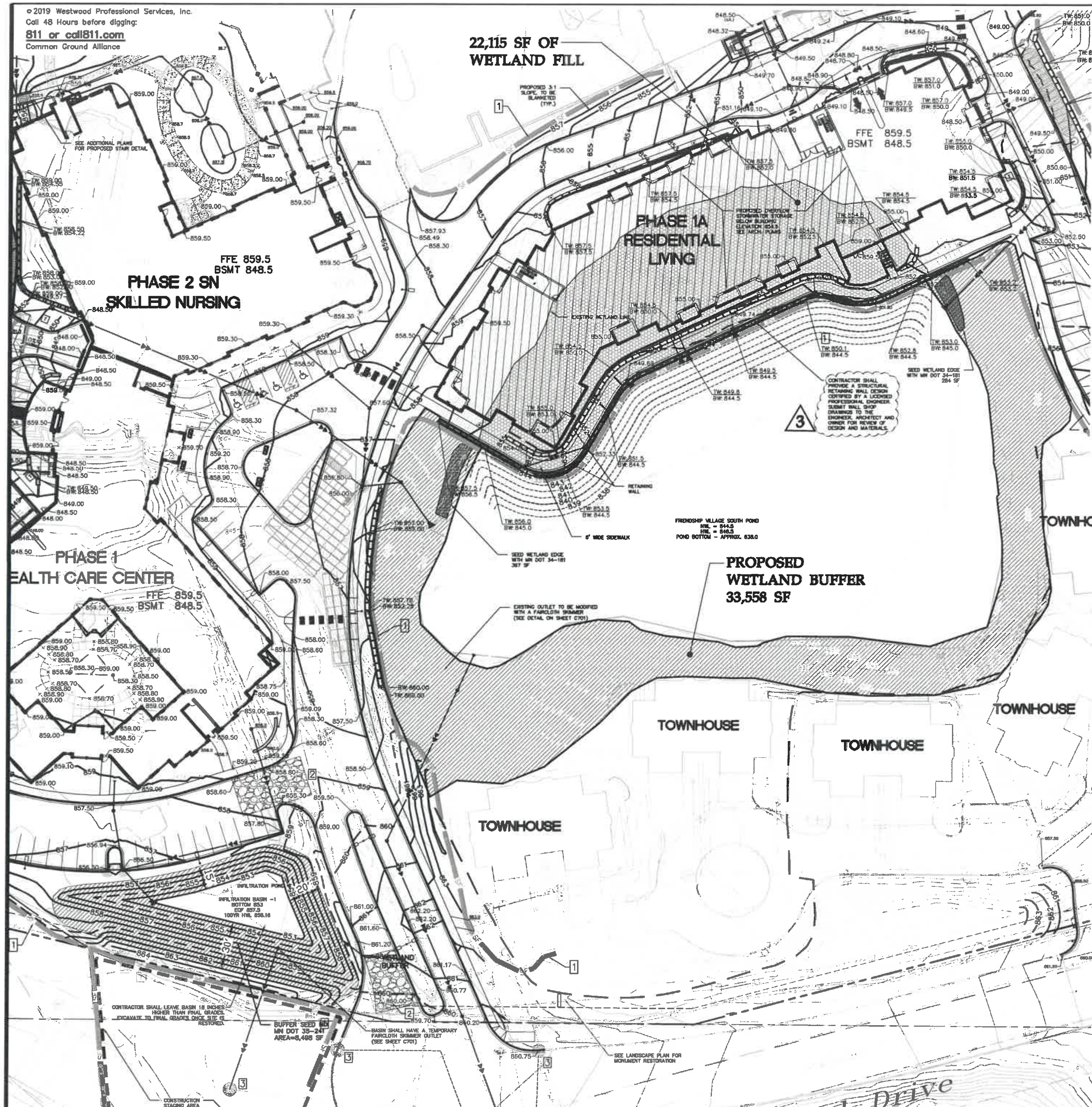
Wetland Name	Hydrogeomorphology	Maintenance of Hydrologic Regime	Flood/ Stormwater/ Attenuation	Downstream Water Quality	Maintenance of Wetland Water Quality	Shoreline Protection
FV Wetland 1-B	Depressional/Tributary (outlet but no perennial inlet or drainage entering from upstream subwatershed), excavated wetland currently serving as stormpond	0.20	0.50	0.46	0.21	0.00
		Low	Moderate	Moderate	Low	Not Applicable

	Additional Information								
Wetland Name	Maintenance of Characteristic Wildlife Habitat Structure	Maintenance of Characteristic Fish Habitat	Maintenance of Characteristic Amphibian Habitat	Aesthetics/ Recreation/ Education/ Cultural	Commercial Uses	Ground-Water Interaction	Wetland Restoration Potential	Wetland Sensitivity to Stormwater and Urban Development	Additional Stormwater Treatment Needs
FV Wetland 1-B	0.30	0.26	0.08	0.31	0.00	Combination Discharge, Recharge	0.00	0.10	0.21
	Low	Low	Low	Low	Not Applicable		Not Applicable	Moderate	Low

Wetland Community Summary

		Vegetative Diversity/Integrity							
		Community							
Wetland Name	Location	Cowardin Classification	Circular 39	Plant Community	Wetland Proportion	Individual Community Rating	Highest Wetland Rating	Average Wetland Rating	Weighted Average Wetland Rating
FV Wetland 1-B		PUBG	Type 5	Shallow, Open Water Communities	100	0.1	0.10	0.10	0.10
							Low	Low	Low
					100		0.10	0.10	0.10 ☐

☑ *Denotes incomplete calculation data.*



Buffer Seeding Notes:

1. SILT FENCE SHALL BE INSTALLED PRIOR TO CONSTRUCTION AND MAINTAINED UNTIL VIABLE COVER HAS ESTABLISHED. SILT FENCE SHALL BE REMOVED UPON FINAL ACCEPTANCE BY THE ENGINEER.

SEEDBED PREPARATION

1. PRIOR TO SEEDING, THE CONTRACTOR SHALL KILL AND PLOW OR DISC UNDESIRABLE VEGETATION THAT COVERS MORE THAN 25 PERCENT OF THE GROUND IN THE AREA TO BE SEEDED.
2. THE SEEDBED SHALL BE PREPARED BY LOOSENING TOPSOIL TO A MINIMUM DEPTH OF 3 INCHES.
3. THE CONTRACTOR SHALL CONTACT WESTWOOD PRIOR TO THE START OF SEEDING.
4. SEEDING SHALL NOT BE CONDUCTED BETWEEN JULY 10 AND AUGUST 20.

SEED MIXTURES AND RATES

5. THE CONTRACTOR SHALL SEED: STATE SEED MIX 35-241 (MESIC PRAIRIE GENERAL) (or similar) SHALL BE SEEDED WITHIN DESIGNATED DISTURBED BUFFERS AROUND WETLAND 1.
6. SEED MIXES SHALL BE INSTALLED AT THE RATES SPECIFIED BELOW:

State Seed Mix	LBS. Pure Live Seed/Acre
35-241 (Mesic Prairie General)	11.5
34-181 (Emergent Wetland)	5.0

3

7. SUBSTITUTIONS OF SIMILAR SPECIES OR MIXES MUST BE APPROVED BY WESTWOOD.

SEEDING METHODS

8. SEED MIXES SHALL BE INSTALLED IN ACCORDANCE WITH:
   - RESTORING & MANAGING NATIVE WETLAND & UPLAND VEGETATION (JACOBSON, 2006, MINNESOTA BOARD OF WATER & SOIL RESOURCES (BWSR) AND MINNESOTA DEPARTMENT OF TRANSPORTATION [see http://www.bwsr.state.mn.us/wetlands/publications/nativewetveg.pdf°).
   - 2014 SEEDING MANUAL (MINNESOTA DEPARTMENT OF TRANSPORTATION OFFICE OF ENVIRONMENTAL STEWARDSHIP, 2014 [see http://www.dot.state.mn.us/environment/erosion/pdf/seedingmanual.pdf°), AND
   - STANDARD SPECIFICATIONS FOR CONSTRUCTION, 2014 EDITION (MINNESOTA DEPARTMENT OF TRANSPORTATION, 2014).
   - MINNESOTA WETLAND RESTORATION GUIDE, 2012. http://bwsr.state.mn.us/restoration/index.html
9. SEED MIXES SHALL BE BROADCAST EVENLY OVER THE SEEDBED BY HAND, BY USE OF A MECHANICAL 'CYCLONE' SEEDER, OR SEEDED WITH A NATIVE GRASS DRILL.
10. SEEDED AREAS SHALL BE FIRMED WITH A ROLLING-TYPE PACKER WITHIN TWO DAYS AFTER SEEDING.
11. SEEDED AREAS SHALL BE MULCHED WITH MN/DOT TYPE 3 (MCIA CERTIFIED WEED FREE GRAIN STRAW) MULCH AT A RATE OF 2 TONS PER ACRE AND THE MULCH SHALL BE ANCHORED WITH A DISC OR TACKIFIER.

NOTE: Remaining buffer areas will be managed for invasive species

NOTE: Buffer areas disturbed during construction will be seeded with state seed mix 35-241 (or similar)

WETLAND IMPACT

WETLAND FILL = 22,115 SQ FT

BUFFER IMPACT

EXISTING BUFFER = 44,342 SQ FT
REVISED POND BUFFER = 33,558 SQ FT
INFILTRATION BASIN BUFFER = 8,498 SQ SF
TOTAL PROPOSED BUFFER = 42,056 SQ SF

LEGEND:

DENOTES SOIL BORING
DENOTES SILT FENCE
DENOTES HEAVY DUTY SILT FENCE
DENOTES EXISTING CONTOURS
DENOTES PROPOSED CONTOURS
DENOTES PROPOSED STORM SEWER
DENOTES EXISTING SPOT ELEVATION
DENOTES PROPOSED SPOT ELEVATION
DENOTES BIO-ROLL EROSION CHECKS
E.O.F. DENOTES EMERGENCY OVERFLOW ELEVATION

WETLAND IMPACT

WETLAND BUFFER
TOTAL AREA=48,502 SF

MN DOT 34-181 SEED

Exhibit #12

0' 30' 60' 90'

Westwood

Westwood Professional Services, Inc.
7699 Anagram Drive
Eden Prairie, MN 55344

Phone (952) 937-5150
Fax (952) 937-5822
Toll Free (888) 937-5150

westwoodps.com

Designed:
Checked:
Drawn:
Record Drawing by/date:

Revisions:

06/08/2017 Per City Comments
11/15/2017 DRC Submittal
02/01/2018 100% DD Submittal
03/02/2018 Watershed Comments
04/18/2018 Construction Drawings
06/26/2018 Construction Drawings
07/19/2018 Revisions Per MN DOLI
02/13/19 DRC Submittal
3 02/27/19 100% DD RL Building

I hereby certify that this plan was prepared by me or under my direct supervision and that I am a duly certified PROFESSIONAL ENGINEER under the laws of the State of Minnesota.

Ryan M. [illegible]
Date: 02/27/19 License No. 41257

Prepared for:

Lifespace Communities

100 East Grand Avenue, Suite 200
Des Moines, IA 50309

Friendship Village

Bloomington, Minnesota

WETLAND FILL AND BUFFER PLAN

Date: 05/10/17
Sheet: C507 OF 45

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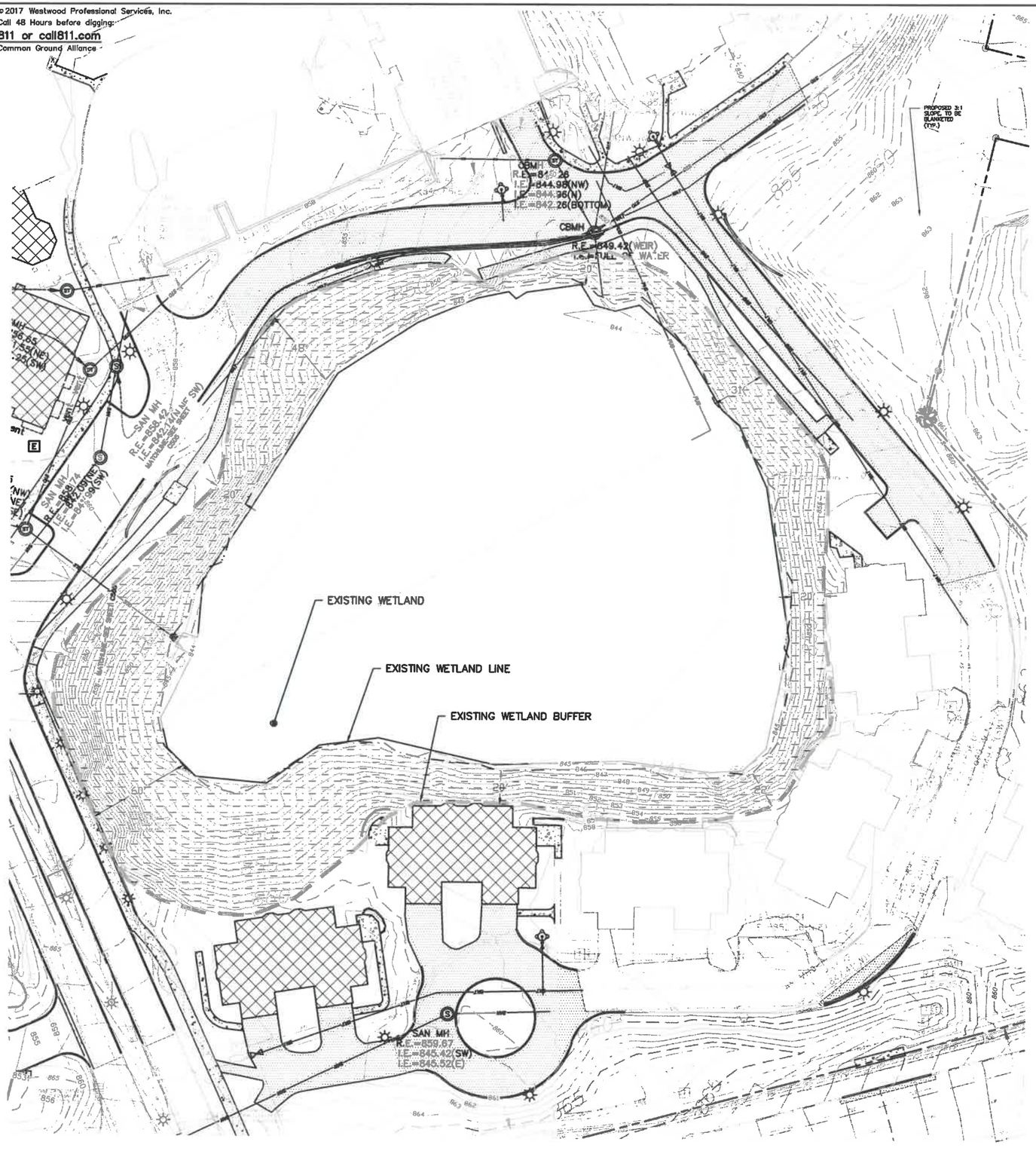
Call 48 Hours before digging:
811 or call811.com
Common Ground Alliance



DENOTES WETLAND BUFFER AREA

Total Existing Buffer = 44,342 SF (1.02 ac) (Estimated)
Current Length of Buffer Perimeter = 1,150'
Current Average Buffer Width = 38.6'

EXHIBIT 13

0' 30' 60' 90'

Westwood

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7699 Anagram Drive
Eden Prairie, MN 55344

Phone (952) 937-5150
Fax (952) 937-5822
Toll Free (888) 937-5150

westwoodps.com

Designed:
Checked:
Drawn:
Record Drawing by/date:

Revisions

I hereby certify that this plan was prepared by me or under my direct supervision and that I am a duly certified PROFESSIONAL ENGINEER under the laws of the State of Minnesota.

Ryan M. Blahna
Date 01/26/18 License No. 41237

Prepared for:

Lifespace Communities

100 East Grand Avenue, Suite 200
Des Moines, IA 50309

Friendship Village

Bloomington, Minnesota

EXISTING BUFFER

Date: 01/26/18
Sheet: 1 OF 1

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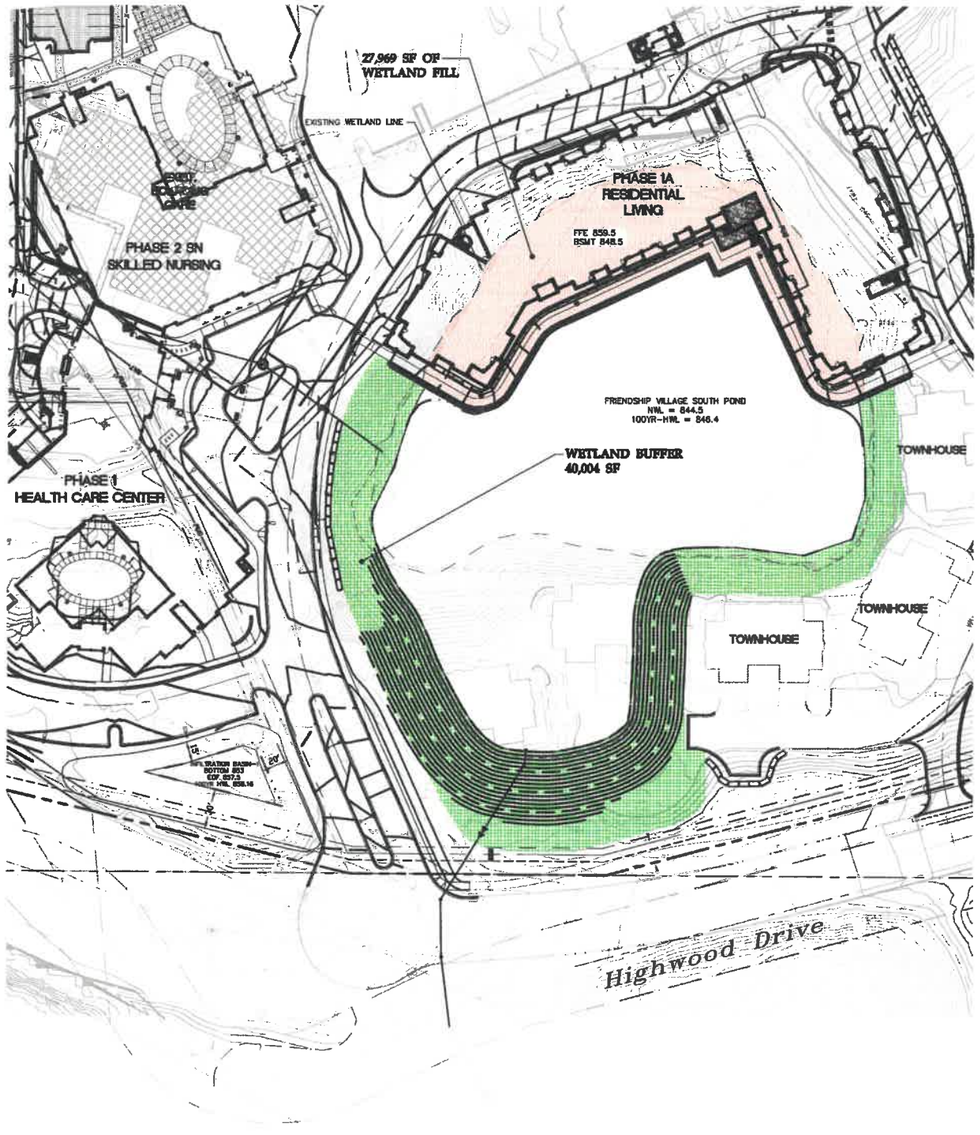
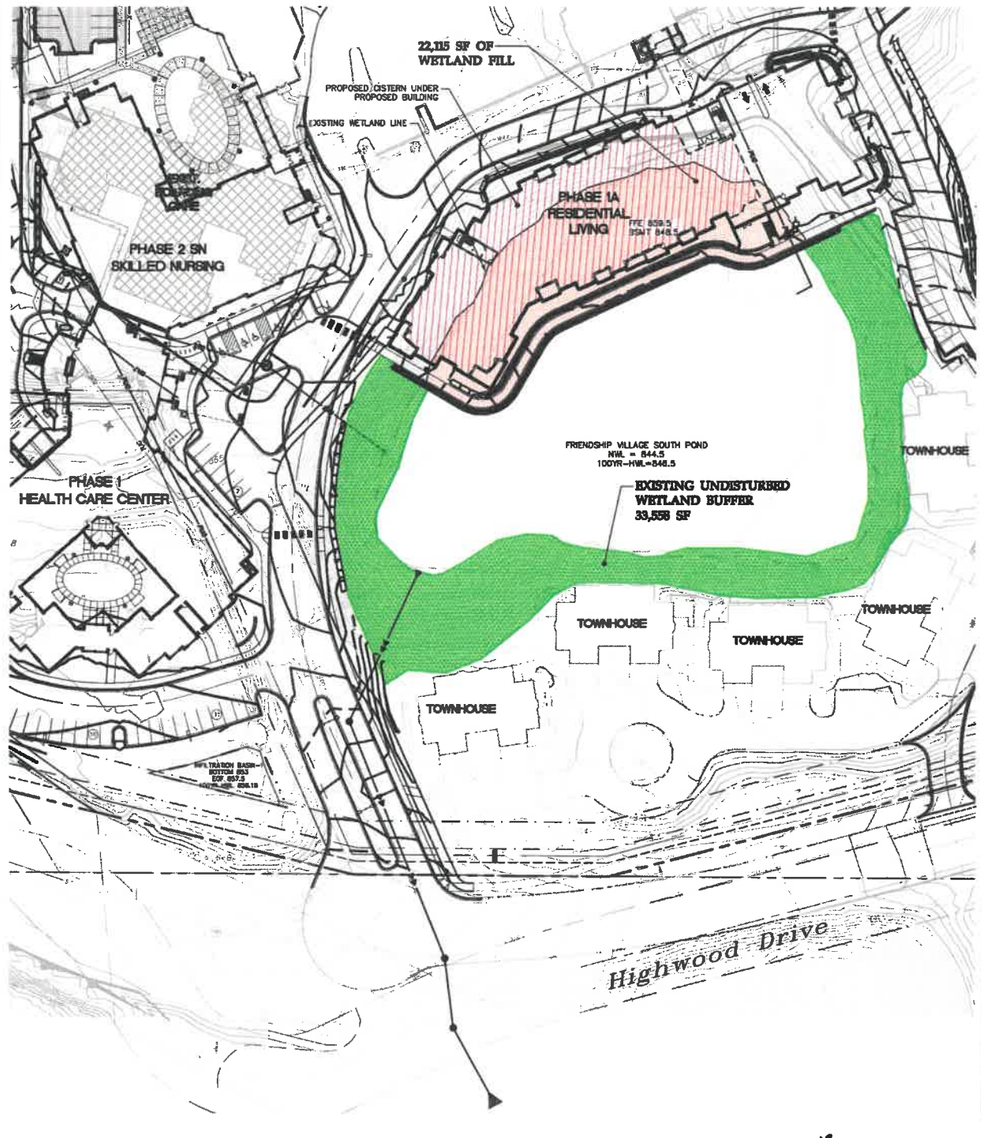
Call 48 Hours before digging:
811 or call811.com
Common Ground Alliance

APPROVED POND GRADING & WETLAND BUFFER/ FILL/MITIGATION

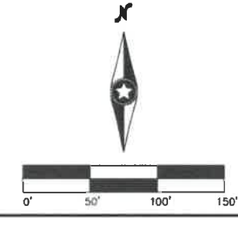


LEGEND:
- WETLAND IMPACT
- PROPOSED WETLAND BUFFER

PROPOSED RL BUILDING WITH RETAINING WALL - OPTION A



LEGEND:
- WETLAND IMPACT
- PROPOSED WETLAND BUFFER



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westwoodps.com

Designed:
Checked:
Drawn:
Record Drawing by/date

Revisions:
-

I hereby certify that this plan was prepared by me or under my direct supervision and that I am a duly certified PROFESSIONAL ENGINEER under the laws of the State of Minnesota.

Ryan M. Bluhm
Date 03/29/19 License No. 41257

-

Prepared for:

Lifespace Communities

100 East Grand Avenue, Suite 200
Des Moines, IA 50309

Friendship Village

Bloomington, Minnesota

PROPOSED RL BUILDING WITH RETAINING WALL - OPTION A

Date: 03/29/19
Sheet: 1 OF 1

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