

ANN ARBOR PLANNING DEPARTMENT STAFF REPORT

For Planning Commission Meeting of December 16, 2014

**SUBJECT: Nixon Farm North – Zoning, Site Plan for City Council Approval, Landscape Modification Request, and Wetland Use Permit
(3381 Nixon Road)
Project Nos. Z14-023, SP14-042, WUP14-002**

PROPOSED CITY PLANNING COMMISSION MOTION

The Ann Arbor City Planning Commission hereby recommend that the Mayor and City Council approve the request for R4A (Multiple-Family Dwelling District) zoning designation for the Nixon Farm North site.

PROPOSED CITY PLANNING COMMISSION MOTION

The Ann Arbor City Planning Commission hereby recommends that the Mayor and City Council approve the Nixon Farm North Site Plan and Development Agreement.

PROPOSED CITY PLANNING COMMISSION MOTION

The Ann Arbor City Planning Commission hereby recommends that the Mayor and City Council approve the proposed modifications to the interior landscaping requirements for Nixon Farm North, in accordance with Chapter 62 (Landscape and Screening Ordinance), Section 5:608(2)(c).

PROPOSED CITY PLANNING COMMISSION MOTION

The Ann Arbor City Planning Commission hereby recommends that the Mayor and City Council approve the Wetland Use Permit for the Nixon Farm North development.

PROPOSED CITY PLANNING COMMISSION MOTION

The Ann Arbor City Planning Commission hereby authorizes activity in the natural features open space for the Nixon Farm North development.

STAFF RECOMMENDATION

Staff recommends that the **zoning** petition be **approved** because it is consistent with the recommendation of the Master Plan: Land Use Element and the adjacent zoning east of the site, and is compatible with surrounding and land uses.

Staff recommends that the **site plan** petition, including modifications to Chapter 62 Landscaping and Screening, be **approved** because it complies with all applicable local, state, and federal ordinances, standards and regulations; it will not cause a public or private nuisance; and it will not have a detrimental effect on public health, safety or welfare, the development would limit disturbance of natural features to the minimum necessary to allow a reasonable use of the land; and the modifications meet the required conditions.

Staff recommends that the **wetland use permit** be **approved** because issuance of the permit is in the public interest, the permit is necessary to realize the benefits from the development, and the activity is otherwise lawful.

Staff recommends **authorization for activity** in the natural features open space be **approved** because it is in the public interest and the benefits of the development are greater than the detriments of the activity.

STAFF REPORT

On October 21, 2014, the Planning Commission recommended approval of the Nixon Farms North annexation petition and postponed the zoning and site plan petitions to allow staff to complete their review of then-recently received plans.

The revised plans have been reviewed by staff, and the only changes proposed from that originally presented to the Planning Commission are a reduced dwelling unit count and a revision to the interior landscaping modification request. A revised traffic impact statement, the executive summary of which is attached, was submitted in response to comments from the Traffic Engineer.

PETITION SUMMARY

- R4A Multiple-Family Dwelling District zoning requested, consistent with the future land use recommendation for the site. The R4A district is intended for attached or stacked dwelling units in a low-density, multiple-family fashion in perimeter areas of the city. Single, two-family, multiple-family and assisted living uses, up to ten dwelling units per acre, are permitted in the R4A district. (No change)
- Site plan for 208 attached dwelling units, one less than previously proposed, each with a two-car garage incorporated into the front of the unit, is proposed on a private drive network. The units are grouped into 51 buildings, most having four or five units each. The density of the proposed development is approximately 3 dwelling units per acre. Seventy-five percent of the site, 48 of the 64.5 total acres, is proposed as open space. (Slight change, one less dwelling unit)

- A combined wetland use permit for Nixon Farm North and Nixon Farm South, has been submitted to place 1,945 cubic yards of fill in 0.31 acres of wetland; excavate 14 cubic yards from 0.142 acres of wetland; enclose 100 linear feet of an unnamed Traver Creek tributary within a 42-inch diameter concrete pipe; construct of 10 storm water detention basins; and install 10 storm water outfall structures with riprap in wetlands. The permit has been submitted to both the City of Ann Arbor and the Michigan Department of Environmental Quality for approval. (No change)
- The proposed development includes nine areas of activity in the Natural Features Open Space, due to grading work for the dwelling units, retaining walls or detention ponds, the proposed crossing of the Traver Creek tributary, and a proposed wetland mitigation area immediately adjacent to the existing wetland in the south of the site. The petitioner's application is attached and discussed below. (No change)
- A Chapter 62 Landscape Modification has been requested for flexibility concerning the conflicting land use buffer and vehicular use area landscaping requirements. The petitioner's application is attached and discussed below. (Slight change; the modifications now include vehicular use area landscaping)

MODIFICATION AND AUTHORIZATION REQUESTS

Chapter 62 Landscape Modifications - Two forms of landscaping are required for the proposed development, (1) a conflicting land use buffer, and (2) interior landscape islands for the vehicular use areas. The petitioner's application requesting flexibility for both requirements is attached. The Urban Forest and Natural Resources Planning Coordinator supports the requested modifications because they will serve to preserve existing natural features (woodlands and wetlands) and will result in more trees planted than would be required if the vehicular use area standards of Chapter 62 were applied to the site.

Natural Feature Open Space Activity – The Zoning Ordinance requires a 25-foot natural feature open space (NFOS) extending from the edge of a wetland or watercourse. The Nixon Farm South site plan proposes activity in the NFOS in nine locations on the site. There are nine criteria that the Planning Commission must consider when authorizing activity within a NFOS. The petitioner's application addressing these criteria is attached. The request has been reviewed by the Urban Forest and Natural Resources Planning Coordinator, and found to be acceptable.

OTHER QUESTIONS AND CONCERNS

Nixon/Dhu Varren/Green Road Intersection – Two design options for improving this intersection were presented at a public meeting on December 11, 2014. Both design options involved aligning Dhu Varren and Green Roads; one with a traffic signal-controlled intersection, and one with a roundabout with an eastbound Dhu Varren/southbound Nixon bypass lane. Preliminary design and construction cost estimates for both potential designs are virtually equal, ranging from \$800,000 to \$1.3 million. Additional right-of-way will need to be acquired from the Nixon Farm South site to achieve either of the potential designs.

The City's Land Development Regulations call for plans to be in place for necessary streets or traffic improvements where developments will contribute traffic that will result in Levels of Service (LOS) D, E or F in order for the site plans to be approved. The petitioners have

acknowledged the traffic their development will contribute to the Nixon/Dhu Varren/Green Road intersection will reduce the LOS below acceptable levels, and have agreed to act as project managers for an intersection improvement project, so they can coordinate the timing of it with construction of their proposed development.

The draft development agreement requires the petitioner to enter into a separate agreement identifying the specific improvement design, timing of construction, and the financing methods for the intersection improvements. The City will work with the petitioner to ensure that other pending or proposed developments in the area contribute their fair share to the project, including Woodbury Club, Nixon Farms South, and NorthSky on Pontiac Trail. The development agreement also indicates that no certificates of occupancy will be issued until the intersection improvements have been constructed to the City's satisfaction.

In the situation where the petitioner does not proceed with the Nixon Farm projects, the City would undertake the intersection improvements in a future year, once funding is identified. The intersection project is included in the 2016-2021 Capital Improvements Plan, with design and construction targeted for 2018. Until the intersection improvements are constructed, new developments that reduce the LOS of the intersection would be delayed until the improvements are completed.

Parkland Contribution – The petitioner is committed to providing a public parkland contribution, as recommended by the Parks and Recreation Open Space Plan to maintain the current ratio of parkland per household in the City. Based on the proposed number of dwelling units in the Nixon Farm North development, 2.6 acres of parkland is desired. Staff has requested any land dedications align with the area identified by Natural Areas Preservation (NAP) as most desirable for natural area preservation. NAP has identified the high quality natural features on the Nixon Farm North site as being the most appropriate for donation.

Public School Impacts – Officials from the Ann Arbor School District have confirmed there is capacity at the elementary, middle, and high schools for all school-age residents of the proposed developments.

UNIT COMMENTS

Engineering – Adjustments may have to be made to the utility plan to align the utility phasing with the building construction phasing. Otherwise, all previous comments have been addressed.

Planning – The proposed development is keeping with the City's Master Plan, including Sustainability Framework, Land Use Element, Transportation Plan Update, Non-Motorized Plan, Parks and Recreation Open Space Plan and Natural Features Master Plan. It achieves and furthers many of the stated goals, recommendations, and best management practices of these adopted documents. For these reasons, staff recommends approval.

Prepared by Alexis DiLeo
Reviewed by Wendy Rampson
12/12/14

Attachments: Revised Traffic Impact Study – Executive Summary
Criteria for Authorization of Natural Feature Open Space Activity
Modifications to Chapter 62 Landscaping and Screening Analysis
December 12, 2014 Draft Development Agreement
Environmentally Friendly Homes and Communities Handout
Natural Features Overlay Plan
Site Plan
Landscape Plan
October 21, 2014 Planning Staff Report

c: Petitioner: Toll Brothers, Inc.
Attn: Jeff Brainard
29665 William K. Smith Drive, Suite B
New Hudson, MI 48165

Petitioner's Engineer: Atwell, LLC
Attn: Todd Pascoe
123 N. Ashley Street, Suite 105
Ann Arbor, MI 48104

Owner: Betty N. Spurway Trust
1200 Earhart Road, Apt 559
Ann Arbor, MI 48105

Parks & Recreation
Project Management
Systems Planning
Project Nos. A 14-006, Z14-023, SP12-042, WUP14-002



TRAFFIC IMPACT STUDY

For the Proposed

Nixon Property Condominiums

City of Ann Arbor, Washtenaw County, MI

**November, 2014
(Revised)**

Prepared by:

**Traffic Engineering
Associates, Inc.**

PO Box 100 • Saranac, Michigan 48881
517/627-6028 FAX: 517/627-6040

EXECUTIVE SUMMARY

Traffic Engineering Associates, Inc. (TEA) conducted a traffic impact study to determine the distribution of the new traffic generated by the proposed Nixon Property Condominiums development in the City of Ann Arbor, Washtenaw County, Michigan. The project site is located on the west side of Nixon Road from the M-14/US-23 highway to a point south of Dhu Varren Road. The proposed development will consist of 473 condominiums on 108.97 acres. The property is currently vacant. The new development is anticipated to be constructed in phases, with completion and occupation in eight (8) years.

Access to the proposed Nixon Property Condominiums development will be provided via two (2) new access roads located on Nixon Road, one (1) north of Dhu Varren Road and one (1) south of Dhu Varren Road. In addition, there will be two (2) new access roads located on Dhu Varren Road, one (1) on the south side and one (1) on the north side.

TEA, Inc. conducted vehicle counts during the week of June 2, 2014, as well as additional counts the week of November 3, 2014. The 2014 traffic counts for this study were taken prior to the dismissal of the K-12 school system in the City of Ann Arbor. It was requested by the City that the intersection of Plymouth Road and Huron Parkway be added to the traffic study after school dismissal for the summer; therefore, the City of Ann Arbor provided the traffic volumes at this intersection from a previous study, and the traffic counts were adjusted for 2014. The weekday AM and PM peak hours of existing traffic on the adjoining road system are 8:00 – 9:00 AM and 5:00 – 6:00 PM, respectively.

The intersections for this study were analyzed according to the methodologies published in the most recent edition of the *Highway Capacity Manual*. The analysis determines the “Level of Service” (LOS) of the intersections and is defined by average vehicle delay in seconds created by a traffic control device for a given traffic movement, or intersection approach. Level of Service is expressed in a range from “A” to “F,” with “A” being the highest LOS and “F” representing the lowest LOS. Level of service “D” is considered the minimum acceptable LOS in most urban areas.

The existing intersections analyzed in the study consisted of the following;

- Nixon Road and Barclays Way
- Nixon Road and Dhu Varren Road
- Nixon Road and Green Road
- Nixon Road and Haverhill Court
- Nixon Road and Meade Court/Bluett Drive
- Nixon Road and Huron Parkway
- Nixon Road and Plymouth Road
- Huron Parkway and Plymouth Road

All existing turning movements at the studied intersections operate at an acceptable level of service (LOS D or better) during the AM and PM peak hours except movements at the Nixon Road and Meade Court/Bluett Drive intersection, Nixon Road and Plymouth Road intersection



and Huron Parkway and Plymouth Road intersection which had level of service values from “E” to “F.”

Background traffic represents future volumes without the traffic generated by the proposed Nixon Property Condominiums development. The new development is anticipated to be constructed in phases, with completion and occupation in eight (8) years.

Population growth is the driving force behind area-wide traffic growth. According to the most recent Quick Facts sheet from the US Census Bureau (July 2010), from 2000-2010 the City of Ann Arbor had a total growth of negative zero point six seven percent (-0.67%). However, the census data also shows that from 2010 to 2013 there was a two point seven percent (2.7%) growth rate. For this study, the two point seven percent (2.7%) growth rate from 2010 to 2013 was used for the eight (8) year background growth rate to project traffic to the build out date of 2022.

The City of Ann Arbor provided information for two (2) new developments, Traverwood Apartments and Woodbury Club Apartments, which might influence the background traffic on Nixon Road and Plymouth Road. The Traverwood Apartments development will be located on the west side of Traverwood Road, between Huron Parkway and Plymouth Road, which is approximately one-quarter mile west of Nixon Road. The Woodbury Club Apartments development will be located in the southeast corner of Nixon Road and M-14/US-23, and directly across from the proposed Nixon Property Condominiums development.

Using the traffic impact study developed by Midwestern Consulting, LLC in May, 2013, and the traffic impact study also developed by Midwestern Consulting, LLC in August, 2013, the site generated traffic from the proposed Traverwood Apartments and the Woodbury Club Apartments developments were used as background development traffic. Traffic was distributed based on existing traffic volume patterns.

Under background conditions, all of the studied intersections had turning movements with level of service values from “E” to “F.” With the increase in vehicle demands, background mitigation recommendations were made to reduce vehicle delays, which included the possible installation of a 4-way stop at the intersection of Nixon Road and Meade Court/Bluett Drive and changing the protected left turn phasing to a permissive/protected, lagging left turn phase for all left turn approaches at the intersections of Nixon Road at Plymouth Road, and Huron Parkway at Plymouth Road.

With the recommended mitigation improvements, there was a significant drop in vehicle delay for background mitigated conditions at the studied intersections. While several movements still operate poorly, the recommended improvements significantly reduced the number of movements at the studied intersections with levels of service “E” or “F.”

The trip generation rates for the Nixon Property Condominiums development were derived from the ITE TRIP GENERATION MANUAL (9th edition). The ITE trip generation rates for Luxury Condominium/ Townhouse (Land Use Code 233) were selected as representing the proposed 473 Units. It is projected that the proposed Nixon Property Condominiums development will



generate 265 vehicle trips in the AM peak hour, 260 vehicle trips in the PM peak hour and 2,486 vehicle trips daily.

For future traffic conditions, all existing geometrics and traffic control were used, with the exception of one location. The intersection of Nixon Road and Dhu Varren/Green Road was aligned so that Dhu Varren Road and Green Road were directly opposite each other, with an eastbound center left turn lane added to Dhu Varren Road to match the existing westbound center left turn lane on Green Road, per the proposed site plans. The proposed four (4) site driveways were modeled as one (1) entering lane and one (1) exiting lane.

Under future conditions, as was seen with background conditions, there are movements at each studied intersection with level of service values from “E” to “F.” The proposed site driveways, however, are expected to operate at a good level of service (LOS C or better).

The future mitigated level of service conditions determines the impact that can be expected from the addition of traffic generated from the Nixon Property Condominiums development, with changes to the roadway geometrics and traffic control devices to mitigate vehicle delay.

At the intersection of Nixon Road and Dhu Varren/Green Road, several recommendations were made to reduce vehicle delay. The intersection was aligned as detailed on the site plan with a center left turn lane added to Dhu Varren Road to match the existing center left turn lane on Green Road. In addition, center left turn lanes were added to the northbound and southbound Nixon Road approaches, along with exclusive right turn lanes for the northbound, eastbound and westbound approaches. This intersection will need a new traffic control method, which is discussed in detail in the report.

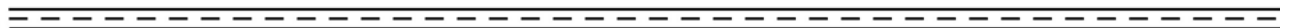
The intersection of Nixon Road and Meade Court/Bluett Drive was changed from the existing 2-way to a 4-way stop control, which was recommended under background mitigated conditions.

The traffic signal phasing at the intersections of Nixon Road at Plymouth Road and Huron Parkway at Plymouth Road was changed from the existing protected leading left turns to permissive/protected lagging left turns for all four (4) approaches. This recommendation was made under background mitigated conditions to alleviate background delays as well.

At the north and south proposed site driveways on Nixon Road, new head-up northbound center left turn lanes were added.

With the driveway and intersection improvements, the future mitigated turning movements will see improvement during the AM and PM peak hours to vehicle delay and a significant reduction in the number of movements at the studied intersections with levels of service “E” or “F.”

The findings of the study recommend aligning Dhu Varren Road with Green Road as shown on the site plan. A new traffic control should be provided for the newly aligned intersection with a 4-way stop, roundabout or a traffic signal, whichever the City of Ann Arbor deems appropriate for this intersection. In addition, a new eastbound center left turn lane on Dhu Varren Road should be constructed, opposite the existing center left turn lane on Green Road. New head up



northbound and southbound center left turn lanes should also be provided on Nixon Road at the Dhu Varren Road/Green Road intersection. New exclusive right turn lanes should be added on eastbound Dhu Varren Road, westbound Green Road and northbound Nixon Road.

At the intersection of Nixon Road and Meade Court/Bluett Drive, the City of Ann Arbor should evaluate potentially replacing the 2-way stop with a 4-way stop.

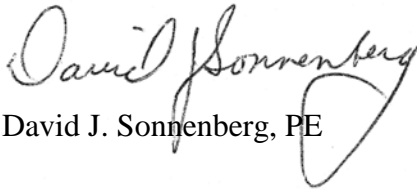
New head up northbound and southbound center left turn lanes should be provided on Nixon Road at the North Site Driveway/Barclays Way intersection.

New head up northbound and southbound center left turn lanes should be provided on Nixon Road at the South Site Driveway/Haverhill Court intersection.

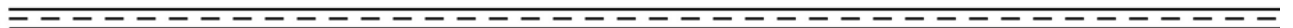
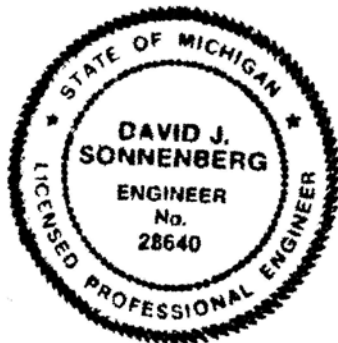
The City of Ann Arbor should review the traffic signal timing and phasing at the intersections of Nixon Road and Plymouth Road, and Huron Parkway and Plymouth Road to determine if the existing leading protected green arrow phase could be replaced with a new permissive/protected lagging left turn phase at each intersection and determine if this would fit into their traffic control system to improve the level of service and reduce the vehicle delays at both of these intersections.

It is further recommended that if the developer would like some type of landscaping or development signing in a boulevard design, that an island be constructed back away from the crossroad a sufficient distance to provide for head up center left turn lanes.

Respectfully Submitted,



David J. Sonnenberg, PE



CRITERIA FOR AUTHORIZATION OF NATURAL FEATURE OPEN SPACE ACTIVITY NIXON FARM NORTH

The Planning Commission, upon review and public hearing, may grant authorization for an activity within the natural feature open space upon the determination that the proposed activity is in the public interest, and that the benefit which would reasonably be expected to accrue from the proposal shall be greater than the reasonably foreseeable detriments of the activity, per Section 5:51(6) of the Zoning Ordinance.

The following general criteria, shown in bold, shall be applied by the Planning Commission in making this determination (Section 5:51(6)(a) – (i)). The petitioner's responses are provided below:

a) The relative extent of the public and private need for the proposed activity.

The open space activities allow for utilization of the site in conformance to the City Master Plan. The activity and related development of the site allows for park donation, connectivity of existing natural systems in this part of the City, a development density that is appropriate for public and/or non-motorized transportation and contributions (financial and property) to the necessary Nixon/Dhu Varren Road intersection improvements.

b) The availability of feasible and prudent alternative locations and methods to accomplish the expected benefits from the activity.

Toll Brothers has conducted numerous site studies, to identify potential properties which could support the proposed housing product and economically viable scale of development within the City of Ann Arbor. Based on these studies the subject properties (Nixon Farm North and Nixon Farm South) were considered the only feasible locations. Alternative plans have been presented to the City of Ann Arbor and subsequent plan changes made, including the extensive use of retaining walls and the use of directional boring for utility installations. The current plan avoids, minimizes, and mitigates impacts to the Natural Features while allowing the site to be used in conformance with the City Master Plan. The proposed activities are limited to the following

1. Wetland Mitigation activities are the largest impact to the open space areas, but the result of the activity is the creation of larger wetlands and larger open space. The mitigations are located in areas where wetland hydrology can be created.
2. Storm water management activities are located in areas where disturbance is minimized. By location storm water management in natural low areas the design minimized the development area required for storm water management systems. Infiltration on the Nixon Farm North property in accordance with the new WCWRC rules, also serves to minimize the hydraulic impacts on site.
3. Road crossing activities (2) as required to access the site without additional connections to Dhu Varren or Nixon Roads are placed in locations where natural features are narrow, thereby minimizing the extent of impacts.
4. Utility crossing activities are placed along the proposed road crossings to minimize impacts. The westerly sanitary sewer connection on Nixon South is not along a road crossing, but it does eliminate the impacts of two additional Nixon North connections thru woodlands to the westerly properties.

c) The extent and permanence of the beneficial or detrimental effect which the proposed activity may have on the public and private use to which the area is suited, including the benefits the natural feature and/or natural feature open space provides.

A) Permanent public use benefits which do not currently exist include public access to the natural features on site, public sidewalks along public street frontages and additional access walks to Logan School for the site and surrounding residents. B) Current private use of the properties is primarily related to on-going agricultural activity. This activity will be ended, which will affect both the agrarian appearance of the property as well as the related soil erosion and use of agricultural pesticides and fertilizers.

d) The probable impact of the activity in relation to the cumulative effect created by other existing and anticipated activities in or near the natural feature to be protected.

A) The subject properties are bordered by existing public roads and/or developed land. Much of the existing adjoining developed land as a lower percentage of Natural Features open space than the proposed development. Use of current storm water management methods will reduce the cumulative effect relative to existing development. Preservation of the majority of the Natural Features on the subject properties and their connectivity to Natural Features on adjoining properties also minimizes cumulative impacts. B) The impact of the proposed activities should be largely associated with the construction. After construction, areas will be restored and, along with the areas proposed for preservation, will be maintained as per the condominium master deed.

e) The probable impact on recognized historic, cultural, scenic, ecological, or recreational values, and on fish, wildlife and public health.

No known historic or cultural resources are proposed to be impacted. The current scenic value from public roads is that of open space including agricultural land, young woods/scrub, mature woods and wetlands. Existing woodland and wetland along public roads is proposed to be maintained (as possible given the necessary Nixon/Dhu Varren Roads intersection improvements) as are many of the existing trees but the rural appearance of the property will be impacted. Natural Features adjoining existing developed properties to the west and south are proposed to be preserved. Ecological impacts are minimized by the preservation of the majority of the Natural Features. Recreation values will be increased by the provision of new publically accessible open spaces in the areas of the preserved Natural Features. Fish (minnows) has been observed in the Nixon Farm North Traver Creek tributary and will likely continue to exist post-development given the proximity of the property to the upstream headquarters limit, the preservation of the majority of wetlands on the property, and the use of WCWRC storm water management practices. Wildlife uses will be diminished from the removal of agricultural land and presence of future resident activities though Natural Features preservation will likely continue to accommodate the avian and terrestrial species common to the area. The proposed use of the property is consistent with the City's Master Plan and is consequently not expected to impact public health.

f) The size and quantity of the natural feature open space being considered.

See table below.

g) The amount and quantity of the remaining natural feature open space.

See table below.

h) Proximity of the proposed activity in relation to the natural feature, taking into consideration of the degree of slope, soil type and the nature of the natural feature to be protected.

See table below.

i) Economic value, both public and private, of the proposed activity and economic value, both public and private, if the proposed activity were not permitted.

A) Economic value is enhanced publicly with increased tax base and development in line with the City of Ann Arbor Master Plan. Additionally, economic value is enhanced both publically and privately with the availability of additional housing types, available parkland and trail connections, and benefits from additional transit opportunities (walk, bike, bus). B) If the activities were not permitted the site could remain undeveloped eliminating the availability of additional housing types, available parkland, trail connections, and benefits from additional transit opportunities (walk, bike, bus). Also, improvements to the Nixon/Dhu Varren intersection would be delayed until a new funding and construction mechanism is determined.

BUFFER IMPACT TABLE

NIXON NORTH					
NATURAL FEATURE	OVERALL OPEN SPACE BUFFER (SF)	OPEN SPACE BUFFER IMPACT AREA (SF)	PURPOSE	SLOPE	SOIL TYPE
Wetland B/C	61,500	84	Basin Storm Outlet	0-10%	Miami Loam
Wetland B/C	114,800	543	Basin Storm Outlet	0-10%	Miami Loam
Wetland B/C	176,300	5,408	Road/Utility crossing	0-10%	Brookston Loam
Wetland B/C	61,500	435	Basin Storm Outlet	0-10%	Miami Loam
Wetland F	36,200	372	Basin Storm Outlet	0-10%	Miami Loam
Wetland F	36,200	7,193	Wetland Expansion	0-10%	Miami Loam
Wetland B/C	114,800	4,998	Wetland Expansion	0-10%	Miami Loam
Wetland M/N	33,000	723	Wetland Expansion	0-10%	Conover Loam
		19,756	total		

**MODIFICATIONS TO CHAPTER 62 LANDSCAPING AND SCREENING ANALYSIS
NIXON FARM NORTH**

Flexibility in the application of the landscaping or screening requirements may be allowed if certain conditions are met, per Section 5:608(2) of Chapter 62, which include approval by Planning Commission or City Council and being associated with at least one of seven specific situations (Section 5:608(2)(c)(i) – (vii)).

The petitioner requests approval to modify the normal landscaping and/or screening requirements in the following ways:

Conflicting Land Use Buffer, Section 5:603(1) – (5)

1. What are the specific site conditions that necessitate this request and how do they warrant the modifications of Chapter 62 requirements? Explain how and to what extent the modifications are justified.

A conflicting land use buffer (CLUB) is required along the western property line. The site is proposed to be R4A zoning and abuts R1C and R3. The Code requirements are as follows:

Use Length	2,269 ft
Natural Buffer to Remain	2,269 ft
Trees Required	151 trees
Buffer Width	15 ft

Due to the presence of existing vegetation, we are requesting a modification of 2,269 linear feet of conflicting land use buffer. The entire western boundary is heavily wooded. The western property line is 198 feet away from the closest building.

The requested modification is as follows:

Use Length	2,269 ft
Natural Buffer to Remain Undisturbed	2,269 ft
Required Buffer Width	15 ft
Trees Provided	Existing Vegetation
Proposed Buffer Width	136 ft minimum

2. How does the proposal meet the spirit and intent of Chapter 62?

The combination of the mature woods and large development setback fulfills the intent of the buffering.

The site is eligible for a modification based upon:

- Section 5:608(1)(a) allows for the preservation of existing vegetation “when development activity would damage existing natural systems or processes”.
- Section 5:608(2)(a) states the modification is consistent with the intent of this chapter. Section 5:600(f) and (g), Intent, state the following:
 - (f) Protect and preserve the appearance, character and value of the surrounding neighborhoods and parks.
 - (g) Promote preservation of existing significant vegetation, the use of non-invasive plant species and the selection of plant species based on site

conditions including soil type, light exposure, presence of utilities, and salt tolerance.

- Section 5:608(2)(b) states the modification is included on the site plan
- Section 5:608(2)(c)(iv) allows for “existing vegetation and landscaping are located or spaced in such a manner that the addition of required landscaping would be detrimental to the plant material or create undesirable conditions”.

Vehicular Use Area, Section 5:602(2)

1. What are the specific site conditions that necessitate this request and how do they warrant the modifications of Chapter 62 requirements? Explain how and to what extent the modifications are justified.

This section requires all vehicular use areas over 3,300 square feet to include landscaped islands. Required landscape over 750 square feet requires 50% of said open space to be bio-swales. This Code section requires the following:

Vehicular Use Area	316,114 sq ft
Open Space Required	31,611 sq ft
Island Areas	15,085 sq ft
Bio-Swale Areas	15,085 sq ft
Trees Required	126 trees

The VUA appears to apply more to a commercial parking lot with drive aisles than it does to the condominium streets and driveways as included in the proposed development. We are proposing treating this as a residential street in lieu of a VUA. The plan provides street trees at a rate of 1 tree per 40 linear feet of street frontage. This equates to the public street requirements. We attempted to use the private street standards outlined in Section 5:602(1.b), 1 tree per 30 linear feet, but the trees would have been planted too close together affecting long term health.

The requested modification is as follows:

Street Frontage	12,920 ft
Trees Required	323 trees (1 per 40 ft)
Trees Provided	323 trees

2. How does the proposal meet the spirit and intent of Chapter 62?

The amount of landscaped islands and proposed trees is roughly 2.5 times greater than what is required by the VUA. The intent of the VUA is to provide shade, reduce the heat island effect and provide landscape areas to visually break up the pavement. The proposed layout and additional 197 trees meets the intent of the VUA.

This site is eligible for a modification based upon:

- Section 5:608(2)(a) states the modification is consistent with the intent of this chapter. Section 5:600(c), Intent, states the following:
 - (c) Promote the public health, safety and general welfare by reducing noise and air pollution, light glare, soil erosion, and thermal heating of the environment.

- Section 5:608(2)(c)(iii), the topographic features of the site create conditions so that the strict application of this chapter will result in less effective screening and landscaping than alternative designs.
- Section 5:608(2)(c)(iv), existing vegetation and landscaping are located or spaced in such a manner that the addition of required landscaping would be detrimental to the plant material or create undesirable conditions.

NIXON FARM NORTH DEVELOPMENT AGREEMENT

THIS AGREEMENT, made this _____ day of _____, 2015, by and between the City of Ann Arbor, a Michigan municipal corporation, with principal address at 301 East Huron Street, Ann Arbor, Michigan 48107, hereinafter called the CITY; and _____, a _____, with principal address at _____, hereinafter called the DEVELOPER, witnesses that:

WHEREAS, the DEVELOPER owns certain land in the City of Ann Arbor, described below and site planned as Nixon Farm North, and

WHEREAS, the DEVELOPER has caused certain land in the City of Ann Arbor, described below to be surveyed, mapped and site planned as Nixon Farm North, and desires site plan and development agreement approval thereof, and

WHEREAS, the DEVELOPER desires to build or use certain improvements with and without the necessity of special assessments by the CITY, and

WHEREAS, the CITY desires to insure that all of the improvements required by pertinent CITY ordinances and regulations be properly made, and that the DEVELOPER will install these improvements prior to any permits being issued.

THE DEVELOPER HEREBY AGREES:

(P-1) To prepare and submit to the CITY for approval plans and specifications ("the Plans") prepared by a registered professional engineer for construction of public water and sanitary sewer mains, public and private storm water management systems, public streets, sidewalks and streetlights ("the Improvements") provided that no work on said Improvements shall be commenced until the Plans have been approved by the City Administrator or designee, and until such other relevant information to CITY service areas as shall be reasonably required has been provided.

(P-2) To construct all Improvements set forth in Paragraph P-1 of this Agreement in accordance with the approved Plans and to repair all defects in the improvements that occur within one year from the date of acceptance of the Improvements by the CITY, commencing on the latest date of the acceptance of any Improvements by the CITY. If the DEVELOPER fails to construct the Improvements, the CITY may send notice via first class mail to the DEVELOPER at the address listed above requiring it to commence and complete the Improvements in the

notice within the time set forth in the notice. The CITY may cause the work to be completed at the expense of the DEVELOPER, if the DEVELOPER does not complete the work within the time set forth in the notice. Every owner of a portion of the property, including co-owners of condominium units, shall pay a pro-rata share of the cost of the work. That portion of the cost of the work attributable to each condominium unit shall be a lien on that Property and may be collected as a single tax parcel assessment as provided in Chapter 13 of the Ann Arbor City Code.

(P-3) To furnish, within 30 days of completion, an engineer's certificate that the construction of the public improvements set forth in Paragraph P-1 have been completed in accordance with the specifications of the CITY in accordance with the approved plans. The engineer's certificate will cover only those items the DEVELOPER'S engineer inspects.

(P-4) To grant easements to the CITY for water mains, storm water mains, sanitary sewer mains and pedestrian access to the public park, as shown on the approved site plan and the final approved construction plan, subject to City Council approval. DEVELOPER shall submit a legal description and survey drawing for the easement prior to the request for and issuance of building permits and the easement shall be granted to the CITY in a form acceptable to the CITY Attorney. The easement must be accepted by City Council prior to the request for and issuance of any temporary or final certificate of occupancy.

(P-5) To provide, prior to the issuance of building permits, a signing plan to the Fire Department and install all street name signs according to CITY specifications and to provide and install such temporary warning signs during the construction period as are appropriate to protect the health, safety and welfare of the public. At the request of the DEVELOPER, the CITY will provide and install all street name signs and invoice the DEVELOPER for actual cost of installation.

(P-6) To install all water mains, storm sewers, sanitary sewers and streets, through the first course of asphalt, pursuant to CITY approved plans and specifications, necessary to connect the site with existing CITY systems adjacent to the site prior to the issuance of any building permits for each phase of the development as shown on the approved site plan. Building permits may be issued for the construction of one building containing up to 5 model units prior to the first course of asphalt, provided that the road meets Fire Department requirements. The final course of asphalt paving shall be completed prior to the issuance of certificate of occupancy for the last dwelling unit in each phase of the development.

(P-7) To be included in a future special assessment district, along with other benefiting property, for the construction of additional improvements to Nixon and/or Dhu Varren roads such as street widening, storm sewers, curb and gutter, sidewalks, bike paths, street lights, and the planting of trees along those street frontage(s) when such improvements are determined by the CITY to be necessary. (A provision shall be included in the master deed of the project stating that if the CITY undertakes to establish a special assessment district to improve Nixon and/or Dhu Varren roads each unit shall be assessed its pro rata share of the cost of improvements allocable to the Property.)

(P-8) To indemnify, defend and hold the CITY harmless from any claims, losses, liabilities, damages or expenses (including reasonable attorney fees) suffered or incurred by the CITY based upon or resulting from any acts or omissions of the DEVELOPER, its employees, agents, subcontractors, invitees, or licensees in the design, construction, maintenance or repair of any of the Improvements required under this Agreement and the approved site plan.

(P-9) To cause to be maintained General Liability Insurance and Property Damage Insurance in the minimum amount of \$1,000,000 per occurrence and naming the CITY as additional insured to protect and indemnify the CITY against any claims for damage due to public use of the public improvement(s) in the development prior to final written acceptance of the public improvement(s) by the CITY. Evidence of such insurance shall be produced prior to any construction of improvement and a copy filed with the City Clerk's Office and shall remain in full force and effect during construction of the public improvement(s) and until notice of acceptance by the CITY of the Improvements.

(P-10) Existing woodlands and landmark trees within the woodlands shown on the site plan as trees to be saved shall be maintained by the DEVELOPER in good condition for a minimum of three years after acceptance of the public improvements by the CITY or granting of Certificate of Occupancy for the last dwelling unit. Existing woodlands and landmark trees that are determined by the CITY to be dead, dying or severely damaged due to construction activity within three years after acceptance of the public improvements or granting of Certificate of Occupancy for the last dwelling unit, shall be replaced by the DEVELOPER as provided by Chapter 57 of the Ann Arbor City Code.

(P-11) To convey to the CITY, within 90 days from the date of this agreement listed above, subject to acceptance by the Ann Arbor City Council, land of at least 2.6 acres for a public park as shown on an approved site plan. The DEVELOPER shall record the deed and its conveyance to the CITY as public parkland. A park identification sign shall be provided per CITY specifications before issuance of any certificate of occupancy.

(P-12) To deposit, prior to any building permits being issued, a street tree planting escrow account with the Parks and Recreation Services Unit in the form of a check payable to the City of Ann Arbor. The escrow amount shall be based on the CITY policy in effect at that time and is to include all on-site public streets. The City Administrator may authorize the DEVELOPER to install the street trees if planted in accordance with CITY standards and specifications. If the street trees are found to be acceptable by the CITY, the escrow amount will be returned to the DEVELOPER one year after the date of acceptance by the CITY.

(P-13) To create an association composed of all owners of the Nixon Farm North condominium, hereinafter called the "Association", in which membership shall be required by covenants and restrictions recorded as part of the master deed for the Nixon Farm North. The association(s) shall be responsible for and shall execute the appropriate documents insuring perpetual maintenance and ownership of the internal road network, driveways, sidewalks and pathways, trees shown on the approved site plan, landscape materials, exterior lighting, on-site storm water management system, and all other common elements.

(P-14) To construct, repair and/or adequately maintain on-site storm water management system. If the DEVELOPER fails to construct, repair and/or maintain the private storm water management system, the CITY may send notice via first class mail to the DEVELOPER at the address listed above, requiring it to commence and complete the items stated in the notice within the time set forth in the notice. The CITY may cause the work to be completed at the expense of the DEVELOPER if the DEVELOPER does not complete the work within the time set forth in the notice.

(P-15) After construction of the private on-site storm water management system, to maintain it until non-developer co-owners elect one or more directors to the Association's board

of directors. Thereafter, by provision in the master deed, the Association shall maintain the storm water management system. Any proposed changes to the system must be approved by the City of Ann Arbor Systems Planning and Planning and Development Services Units. If the DEVELOPER or Association, as appropriate, fails to maintain any portion of the system, the CITY may send notice via first class mail to the DEVELOPER, or Association, at the address listed above, requiring it to commence and complete the maintenance stated in the notice within the time set forth in the notice. The CITY may cause the work to be completed at the expense of the DEVELOPER or Association if the DEVELOPER or Association does not complete the work, as appropriate, within the time set forth in the notice. If the CITY completes the work, and the costs remain unpaid by the Association for 60 days after notice via first class mail, the CITY may bill each condominium unit for the pro rata share of the total cost, or assess the pro rata share of those costs to each condominium unit as a single tax parcel assessment as provided in Chapter 13 of Ann Arbor City Code. Provisions for maintenance and responsibility for the storm water management system, as well as the pro rata share of each condominium unit shall be included by the DEVELOPER in the master deed.

(P-16) After construction of the private on-site storm water management system, to commission an annual inspection of the system by a registered professional engineer evaluating its operation and stating required maintenance or repairs, and to provide a written copy of this evaluation to the CITY Public Services Area.

(P-17) Prior to the issuance of any permits, to submit to the CITY Land Development Coordinator for review and approval a Wetland Monitoring Plan, to implement the plan concurrently with construction of the site improvements, and to submit an annual report regarding implementation of the Wetland Monitoring Plan recommendations to the CITY following issuance of certificates of occupancy.

(P-18) To prepare and submit to the Planning and Development Services Unit one copy of the Master Deed, along with the required review fee, prior to issuance of building permits.

(P-19) Prior to the issuance of any permits under the Site Plan and in order to meet Ann Arbor City Code requirements for the traffic impacts of the development on the Nixon/Dhu Varren/Green roads intersection, to enter into an agreement with the CITY identifying specific public improvements to be made to improve the intersection, the timing for construction of those improvements to be complete before issuance of any certificate of occupancy, and payment of the proportional cost of the improvements. Such improvements may include aligning the intersection, relocating public utility mains, and mitigating wetland impacts.

(P-20) To design, construct, repair and maintain this development in accordance with the provisions of Chapter 119 (Noise Control) to ensure that any noise emanating from said development will not impact nearby residents or businesses. In addition, DEVELOPER shall review existing noise sources surrounding said development and incorporate necessary design and construction techniques to ensure that future tenants will not be exposed to noise sources in violation of Chapter 119.

(P-21) To remove all discarded building materials and rubbish from the development at least once each month during construction of the development improvements, and within one month after completion or abandonment of construction.

(P-22) Prior to application for and issuance of certificates of occupancy, to disconnect ___ footing drains, which is based upon the uses currently existing on the Property and those

currently contemplated by the Site Plan in accordance with the Guidelines for Completion of Footing Drain Disconnections, Table A, and adopted by City Council, August 18, 2003 and revised November 30, 2005 (the "Guidelines"), or to provide an alternative method of mitigation that results in an equivalent amount of sanitary flow removal, in accordance with the Guidelines. In the event the actual intensity of uses contemplated by the Site Plan are either increased or decreased, City and DEVELOPER agree to adjust the number of footing drains to be disconnected, or the amount of alternative mitigation to be provided, in accordance with the Guidelines. DEVELOPER may be allowed to obtain partial certificates of occupancy for the development prior to the completion of all of the required footing drain disconnects on a prorated basis at the Discretion of the CITY Public Services Area.

(P-23) DEVELOPER is the sole title holder in fee simple of the land described below except for any mortgage, easements and deed restrictions of record and that the person(s) signing below on behalf of DEVELOPER has legal authority and capacity to enter into this agreement for DEVELOPER .

(P-24) Failure to construct, repair and/or maintain the site pursuant to the approved site plan and/or failure to comply with any of this approved Agreement's terms and conditions shall constitute a material breach of the Agreement and the CITY shall have all remedies in law and/or in equity necessary to ensure that the DEVELOPER complies with the approved site plan and/or the terms and conditions of the approved development agreement. The DEVELOPER shall be responsible for all costs and expenses including reasonable attorney fees incurred by the CITY in enforcing the terms and conditions of the approved site plan and/or Agreement.

(P-25) In addition to any other remedy set forth in this Agreement or in law or equity, if DEVELOPER fails to make a timely or full payments to the CITY as set forth elsewhere in the Agreement to the CITY in the agreed upon manner, any unpaid amount(s) shall become a lien, as provided under Ann Arbor City Code and recorded with the Washtenaw County Register of Deeds, against the land described below and may be placed on the CITY tax roll as a single lot assessment, or if the development is converted to condominium ownership, every owner of a portion of the property shall pay a pro-rata share of the amount of the payments attributable to each condominium unit. If the unpaid amount(s), in whole or in part, has been recorded as a lien on the CITY'S tax roll and with the Washtenaw County Register of Deeds, upon payment of the amount in full along with any penalties and interest, the CITY, upon request, will execute an instrument in recordable form acknowledging full satisfaction of this condition.

(P-26) To pay for the cost of recording this Agreement with the Washtenaw County Register of Deeds, and to pay for the cost of recording all documents granting easements to the CITY.

THE CITY HEREBY AGREES:

(C-1) In consideration of the above undertakings, to approve the Nixon Farm North Site Plan.

(C-2) To provide timely and reasonable CITY inspections as may be required during construction.

(C-4) To record this Agreement with the Washtenaw County Register of Deeds.

GENERAL TERMS

Both the DEVELOPER and the CITY agree as follows:

(T-1) This Agreement is not intended to create a contractual right for third parties.

(T-2) This Agreement and any of its terms, conditions, or provisions cannot be modified, amended, or waived unless in writing and unless executed by both parties to this Agreement. Any representations or statements, whether oral or in writing, not contained in this Agreement shall not be binding on either party.

(T-3) This Agreement and any of its terms or conditions shall not be assigned or transferred to any other individual or entity unless prior approval of the CITY is received. Such approval shall not be withheld unreasonably.

(T-4) The obligations and conditions on the DEVELOPER, as set forth above in this Agreement and in the approved site plan, shall be binding on any successors and assigns in ownership of the following described parcel:

*City of Ann Arbor, Washtenaw County, Michigan
legal description(s) to be inserted here
parcel number to be inserted*

(T-5) In addition to any other remedy in law or in equity failure to comply with all of the above paragraphs on the part of the DEVELOPER , or any part of the approved site plan, in part or in whole, shall give the CITY adequate basis and cause to issue a stop work order for any previously-issued building permits and shall be an adequate basis and cause for the CITY to deny the issuance of any building permits, certificates of occupancy, or any other permits unless and until the CITY has notified the DEVELOPER in writing that the DEVELOPER has satisfactorily corrected the item(s) the DEVELOPER has failed to perform.

(T-6) This Agreement shall be interpreted, enforced and governed under the laws of the State of Michigan and Ann Arbor City Code.

CITY OF ANN ARBOR, MICHIGAN
301 East Huron Street
Ann Arbor, Michigan 48107

By: _____
Christopher Taylor, Mayor

By: _____
Jacqueline Beaudry, City Clerk

Approved as to Substance:

Steven D. Powers, City Administrator

Approved as to Form:

Stephen K. Postema, City Attorney

By:

Name, Title

STATE OF MICHIGAN)
) ss:
County of Washtenaw)

The foregoing instrument was acknowledged before me this _____ day of _____, 2015 by Christopher Taylor, Mayor, and Jacqueline Beaudry, Clerk of the City of Ann Arbor, a Michigan municipal corporation, on behalf of the corporation.

NOTARY PUBLIC
County of Washtenaw, State of Michigan
My Commission Expires: _____

STATE OF _____)
) ss:
County of _____)

The foregoing instrument was acknowledged before me this _____ day of _____, 2015 by _____, _____ of _____, a _____, on behalf of the _____.

NOTARY PUBLIC
County of _____, State of _____
My Commission Expires: _____
Acting in the County of _____

DRAFTED BY AND AFTER RECORDING RETURN TO:
Ann Arbor Planning & Development Services
ATTN: Wendy Rampson
Post Office Box 8647
Ann Arbor, Michigan 48107
(734) 794-6265

TOLL BROTHERS

THREE CATEGORIES OF BUILDING ENVIRONMENTALLY FRIENDLY HOMES AND COMMUNITIES

1) EFFICIENT BUILDING CRITERIA:

Toll Brothers homes are designed with the health of the homeowner and the environment in mind. In addition to being beautiful and luxurious, they are also designed to be functional and energy efficient.

Many homes include:

- High efficiency HVAC system with programmable thermostats and environmentally sound Puron
- ENERGY STAR certified appliances
- High performance windows w/low-E glass
- Air sealing of homes to increase energy efficiency and indoor air quality
- High efficiency water heaters
- Water-conserving toilets and showers
- Engineered wood products manufactured with fast growing renewable timber and recycled wood material
- Prefabricated components and trusses to reduce wasted lumber, scrap and trash
- Environmentally friendly flooring products and fiber cement siding
- Use of recycled materials and management of waste, sending recyclable materials to appropriate facilities

2) ENVIRONMENTALLY FRIENDLY COMMUNITY PLANNING

Toll Brothers communities are designed to be environmentally friendly and recognize the natural beauty of the environment.

Planning efforts include:

- Collaboration with conservation group that include the National Wildlife Federation and Audubon International in preservation planning
- Conservation of existing natural areas and restoration of disturbed areas to provide habitat and promote diversity
- Reuse and restoration of existing facilities with native and adapted vegetation and other ecologically appropriate features on-site
- Creation of open space with will be preserved in perpetuity
- Incorporation and restoration of existing slopes, trees, and ponds
- Environmentally friendly storm water design
- Pollution and soil runoff prevention through best management practices

3) PEDESTRIAN-ORIENTED NEIGHBORHOOD DESIGN

To preserve the natural beauty of the areas where Toll Brothers builds, we put as much effort into the appearance of our communities as we do to the exterior of our homes.

Typical neighborhood features include:

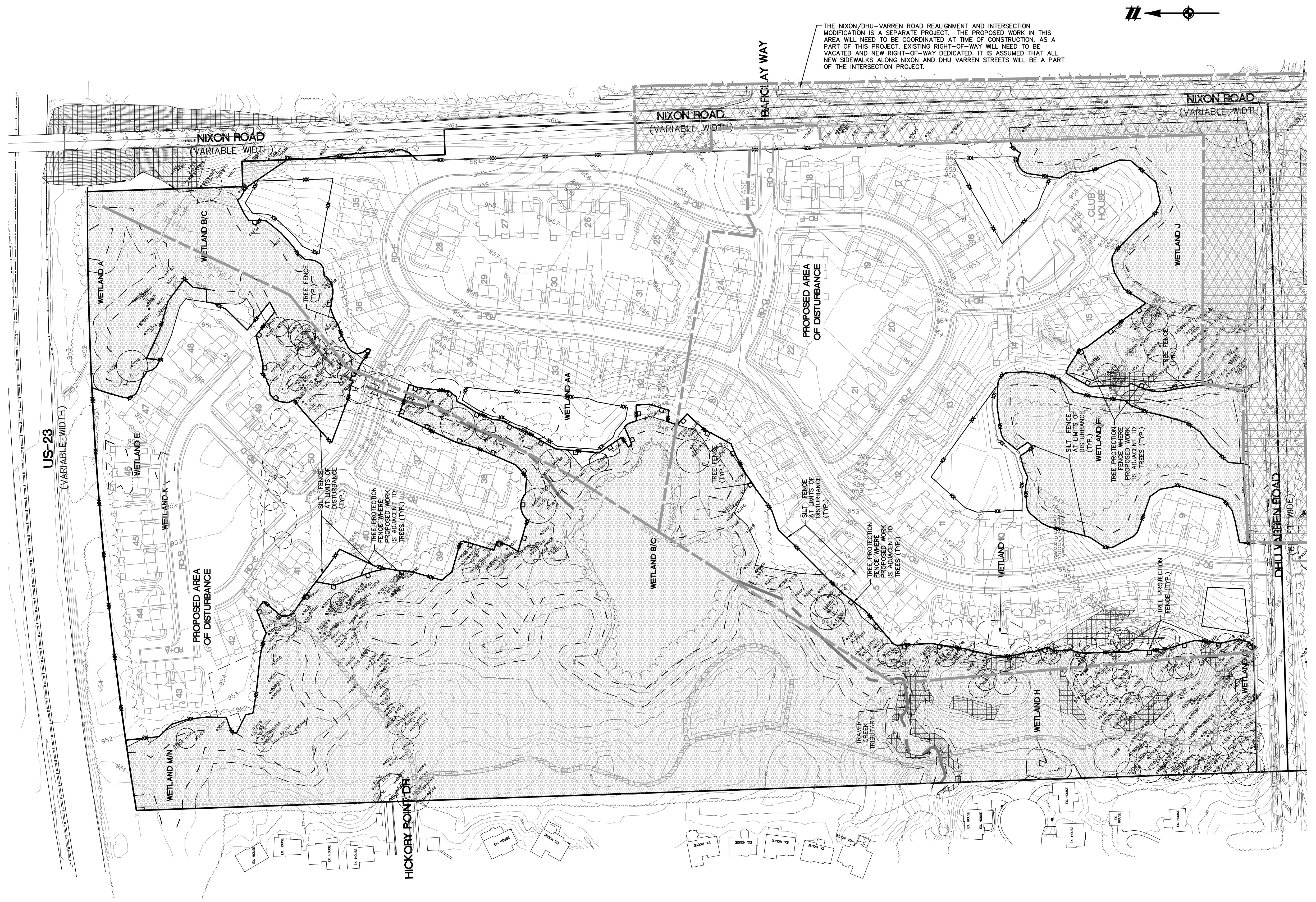
- Streetscapes that complement the surrounding natural features and link communities with pedestrian walkways and open space where appropriate
- Low-maintenance landscape plantings that are native to the area
- Durable home exteriors with low maintenance requirements for long-lasting beauty
- Preservation, restoration, and where appropriate, adaptive reuse of existing historic structures

P:\13001862-SP\DWG\PLAN SET\SITE PLAN_NORTH\13001862SP-05-MD.dwg 10/17/2014 3:30 PM MICHAEL BORDA



THE LOCATIONS OF EXISTING UNDERGROUND UTILITIES ARE SHOWN IN AN APPROXIMATE WAY ONLY AND HAVE NOT BEEN INDEPENDENTLY VERIFIED BY THE OWNER OR ITS REPRESENTATIVE. THE CONTRACTOR SHALL DETERMINE THE EXACT LOCATION OF ALL EXISTING UTILITIES BEFORE COMMENCING WORK, AND AGREES TO BE FULLY RESPONSIBLE FOR ANY AND ALL DAMAGES WHICH MIGHT BE OCCASIONED BY THE CONTRACTOR'S FAILURE TO EXACTLY LOCATE AND PRESERVE ANY AND ALL UNDERGROUND UTILITIES.

NOTICE:
CONSTRUCTION SITE SAFETY IS THE SOLE RESPONSIBILITY OF THE CONTRACTOR. NEITHER THE OWNER NOR THE ENGINEER SHALL BE EXPECTED TO ASSUME ANY RESPONSIBILITY FOR SAFETY OF THE WORK, OF PERSONS ENGAGED IN THE WORK, OF ANY NEARBY STRUCTURES, OR OF ANY OTHER PERSONS.
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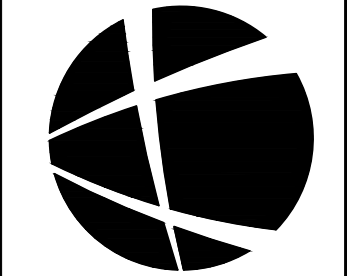
THE NIXON/DHU-VARREN ROAD REALIGNMENT AND INTERSECTION MODIFICATION IS A SEPARATE PROJECT. THE PROPOSED WORK IN THIS AREA WILL NEED TO BE COORDINATED AT TIME OF CONSTRUCTION AS A PART OF THIS PROJECT. EXISTING RIGHT-OF-WAY WILL NEED TO BE VACATED AND NEW RIGHT-OF-WAY DEDICATED. IT IS ASSUMED THAT ALL NEW SIDEWALKS ALONG NIXON AND DHU VARREN STREETS WILL BE A PART OF THE INTERSECTION PROJECT.



LEGEND			
	EXIST. CONTOUR		EXIST. TREE W/ TAG NUMBER
	EXIST. WOODS LINE		○ 3000
	EXIST. WETLAND LIMITS		○ 3000
	EXIST. CURB AND GUTTER		○ 3000
	BOUNDARY/PROPERTY LINE		○ 3000
			PROP. PHASE LINES
			PROP. WETLAND BUFFER
			REGULATED NATURAL FEATURES TO REMAIN
			PROP. TREE TO BE REMOVED
			PROP. CRITICAL ROOT ZONES

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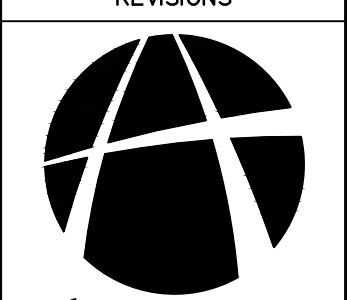


SECTION 10
TOWN 2 SOUTH, RANGE 6 EAST
ANN ARBOR TOWNSHIP
WASHTENAW COUNTY, MICHIGAN

CLIENT
TOLL BROS., INC.
NIXON FARM NORTH
NATURAL FEATURES OVERLAY
AND PROTECTION PLAN

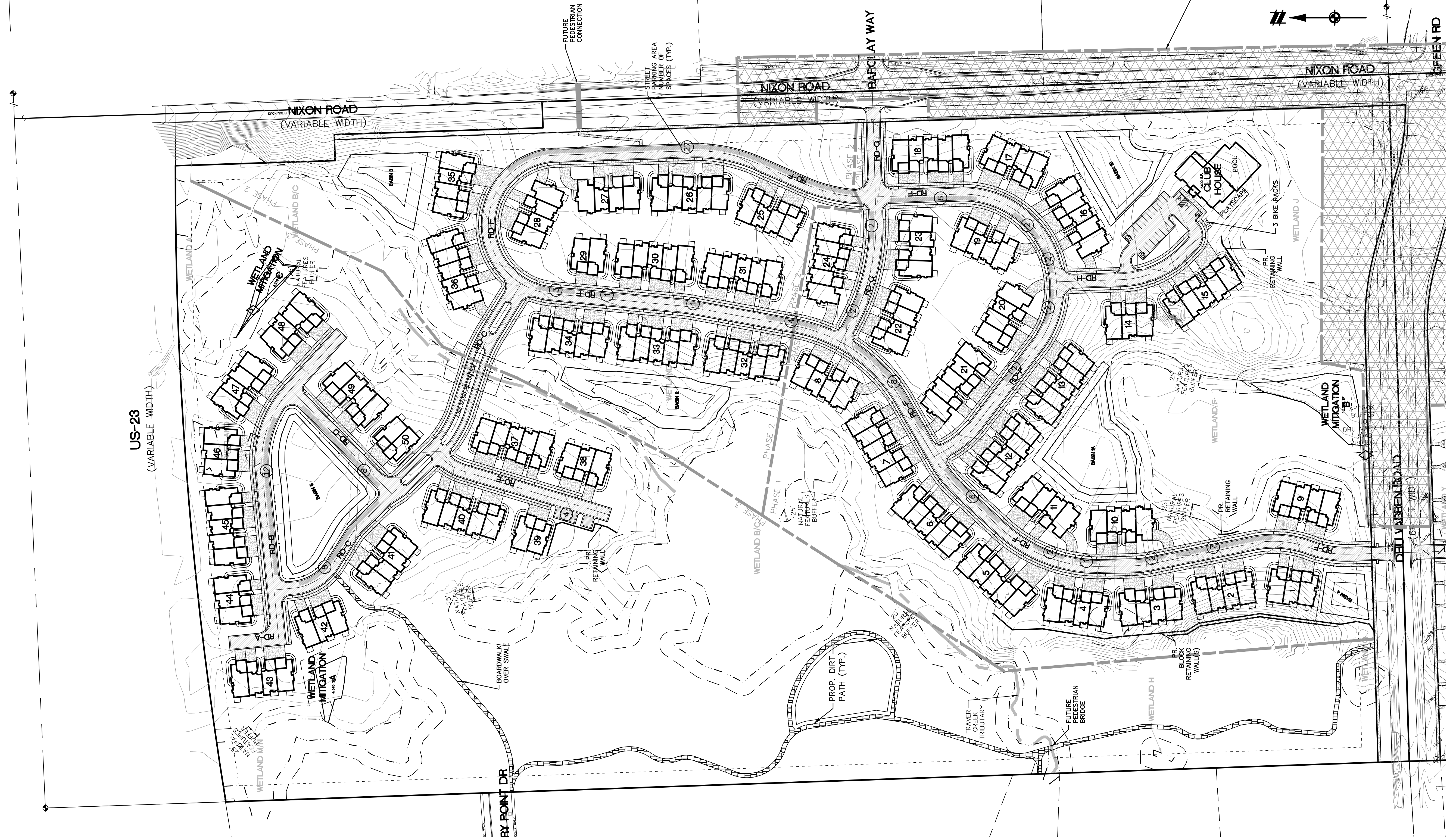
DATE
JULY 28, 2014
2014-09-10 PER CITY
2014-11-4 PER CITY

REVISIONS	



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SCALE 0 50 100
1" = 100 FEET
DR. MB CH. TP
P.M. JA
BOOK --
CAD FILE: 13001862SP-05-NFI
JOB 13001862
FILE CODE: SP
SHEET NO. 12

THE NIXON/DHU-VARREN ROAD REALIGNMENT AND INTERSECTION MODIFICATION IS A SEPARATE PROJECT - PROPOSED WORK IN THIS AREA WILL NEED TO BE COORDINATED WITH THIS PROJECT. AS A PART OF THIS PROJECT, EXISTING RIGHT-OF-WAY WILL NEED TO BE VACATED AND NEW RIGHT-OF-WAY DEDICATED. IT IS ASSUMED THAT ALL NEW SIDEWALKS ALONG NIXON AND DHU VARREN STREETS WILL BE A PART OF THE INTERSECTION PROJECT.



US-23
(VARIABLE WIDTH)

NOTE
PRIVATE DRIVEWAY AISLE WILL BE OWNED AND MAINTAINED BY THE HOMEOWNERS ASSOCIATION.

LEGEND			
	EXIST. WOODS LINE		PROP. R.O.W. LINE
	EXIST. WETLAND LIMITS		PROP. ROAD CENTERLINE
	EXIST. CURB AND GUTTER		PROP. PHASE LINES
	EXIST. EASEMENT		PROP. BACK/EDGE CURB
	BOUNDARY/PROPERTY LINE		PROP. LOT LINE
	SECTION LINE		PROP. EASEMENT
	PROP. ASPHALT		PROP. SETBACK LINE
	PROP. ROAD PARKING		EXIST. UTILITY POLE
			SECTION CORNER
			PARKING

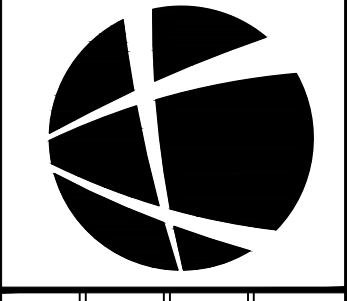
THE LOCATIONS OF EXISTING UNDERGROUND UTILITIES ARE SHOWN IN AN APPROXIMATE WAY ONLY AND HAVE NOT BEEN INDEPENDENTLY VERIFIED BY THE OWNER OR ITS REPRESENTATIVE. THE CONTRACTOR SHALL DETERMINE THE EXACT LOCATION OF ALL EXISTING UTILITIES BEFORE COMMENCING WORK, AND AGREES TO BE FULLY RESPONSIBLE FOR ANY AND ALL DAMAGES WHICH MIGHT BE OCCASIONED BY THE CONTRACTOR'S FAILURE TO EXACTLY LOCATE AND PRESERVE ANY AND ALL UNDERGROUND UTILITIES.

NOTICE:
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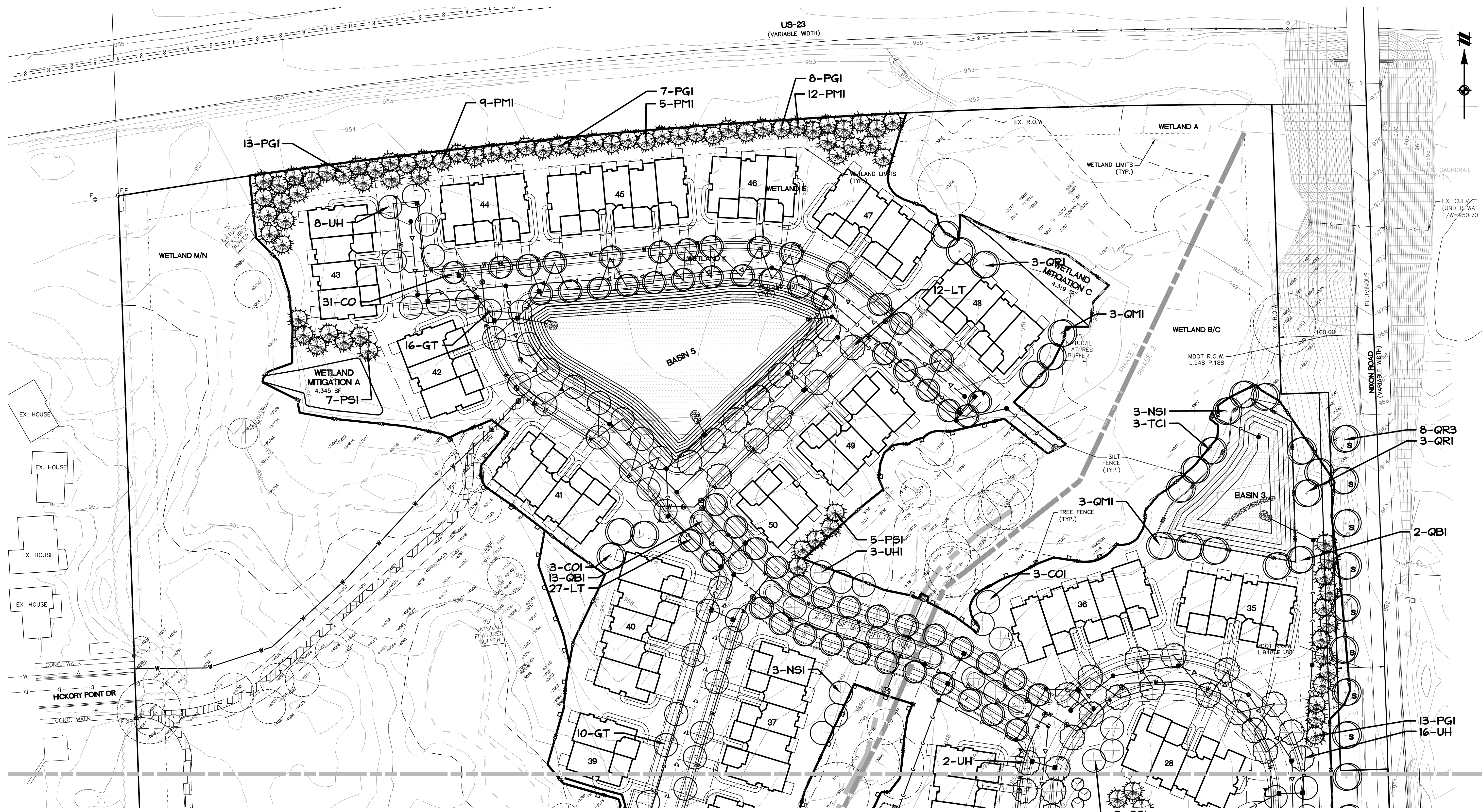
CLIENT
TOLL BROS., INC.
NIXON FARM NORTH
LAYOUT PLAN - OVERALL

DATE
JULY 28, 2014
2014-09-10 PER CITY
2014-11-4 PER CITY

REVISIONS



SCALE 0 50 100
1" = 100 FEET
DR. MB CH. TP
P.M. JA
BOOK --
CAD FILE: 13001862SP-06-0L
JOB 13001862
FILE CODE: SP
SHEET NO. 13



MATCHLINE SHEET 35

LANDSCAPE SUMMARY

CONFLICTING USE BUFFER (EAST PROPERTY LINE)		STREET TREES - PERIMETER PUBLIC STREETS	
USE LENGTH	2,269 L.F.	ROW LENGTH	3,646 L.F.
NATURAL BUFFER TO REMAIN	2,269 L.F.	FUTURE PROJECT LENGTH	2,030 L.F.
STREET TREES - INTERNAL STREETS		ROW AVAILABLE FOR PLANTING	1,616 L.F.
STREET LENGTH	12,920 S.F.	(S) STREET TREES REQUIRED	36 TREES (1,616 / 45)
TREES REQUIRED	323 TREES (12,920 / 40)	STREET TREES PROVIDED	27 TREES (Due to Nixon Overpass)
TREES PROVIDED	323 TREES	COMPLETE ROW ESCROW	\$4,739.80 (3,646 X \$1.30)
VEHICULAR USE AREA		WOODLAND MITIGATION	
OPEN SPACE REQUIRED	9,030 S.F.	TOTAL DBH REMOVAL	1,061"
OPEN SPACE PROVIDED	451 S.F. (1:20 S.F.)	(1) REPLACEMENT REQUIRED	354 TREES (1,061 L.F. / 3.0')
TREES REQUIRED	767 S.F.	REPLACEMENT PROVIDED	354 TREES
TREES PROVIDED	2 TREES (1 PER 250 S.F.)		
TREES PROVIDED	2 TREES		

PLANT LIST

sym	qty	botanical name	common name	caliper	spacing	root height
AC	3	Amelanchier canadensis	Serviceberry	2.0"	as shown	B&B
CO	18	Celtis occidentalis	Hackberry	3.0"	as shown	B&B
GD	3	Gymnocladus dioica	Kentucky Coffeetree	3.0"	as shown	B&B
GT	22	Gletitsia triacanthos var. inermis	Thornless Honeylocust	3.0"	as shown	B&B
LT	24	Liriodendron tulipifera	Tulip Tree	3.0"	as shown	B&B
NS	3	Nyssa sylvatica	Black Gum	3.0"	as shown	B&B
PG	34	Picea glauca	White Spruce	as shown	B&B	8'
PM	18	Picea mariana	Black Spruce	as shown	B&B	8'
QB	21	Quercus bicolor	Swamp White Oak	3.0"	as shown	B&B
QM	6	Quercus macrocarpa	Burr Oak	3.0"	as shown	B&B
QR	14	Quercus rubra	Red Oak	3.0"	as shown	B&B
TC	3	Tilia americana	American Linden	3.0"	as shown	B&B
UH	31	Ulmus princeton	Princeton Elm	3.0"	as shown	B&B

- UTILITY BOXES ARE UNKNOWN AT THIS TIME. ONCE THE BOX LOCATIONS ARE KNOWN THEY WILL BE SCREENING ON 3 SIDES.
- DISTURBED AREAS TO BE SOD OR SEED.
- LANDSCAPE AREAS SHALL BE IRRIGATED.
- SNOW SHALL BE STORED IN ISLANDS AND ALONG STREETS. STORAGE SHALL NOT INCLUDE DETENTION AREAS OR LANDSCAPED AREAS.
- THE STREET TREE ESCROW MUST BE PAID PRIOR TO ISSUING BUILDING PERMITS. CHECKS ARE TO BE MADE PAYABLE TO: CITY OF ANN ARBOR AND MAILED TO SYSTEMS PLANNING UNIT, 301 E. HURON ST., PO BOX 8647, ANN ARBOR, MI 48107-8647 -- ATTN: KERRY GRAY. PLEASE INCLUDE THE PROJECT NAME AND PROJECT NUMBER ON THE CHECK.
- TREES SHALL BE PLANTED 5'-8' FROM UTILITY LEADS.

Land Development & Real Estate
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Telecommunications
Infrastructure & Transportation
Environmental & Solid Waste
Water & Natural Resources

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OFFICES IN NORTH AMERICA AND ASIA

SECTION 10
TOWN 2 SOUTH, RANGE 6 EAST
ANN ARBOR TOWNSHIP
WASHTENAW COUNTY, MICHIGAN

CLIENT
TOLL BROS., INC.
NIXON FARM NORTH
LANDSCAPE PLAN - NORTH

DATE
JULY 28, 2014
2014-09-10 PER CITY
2014-11-4 PER CITY

REVISIONS

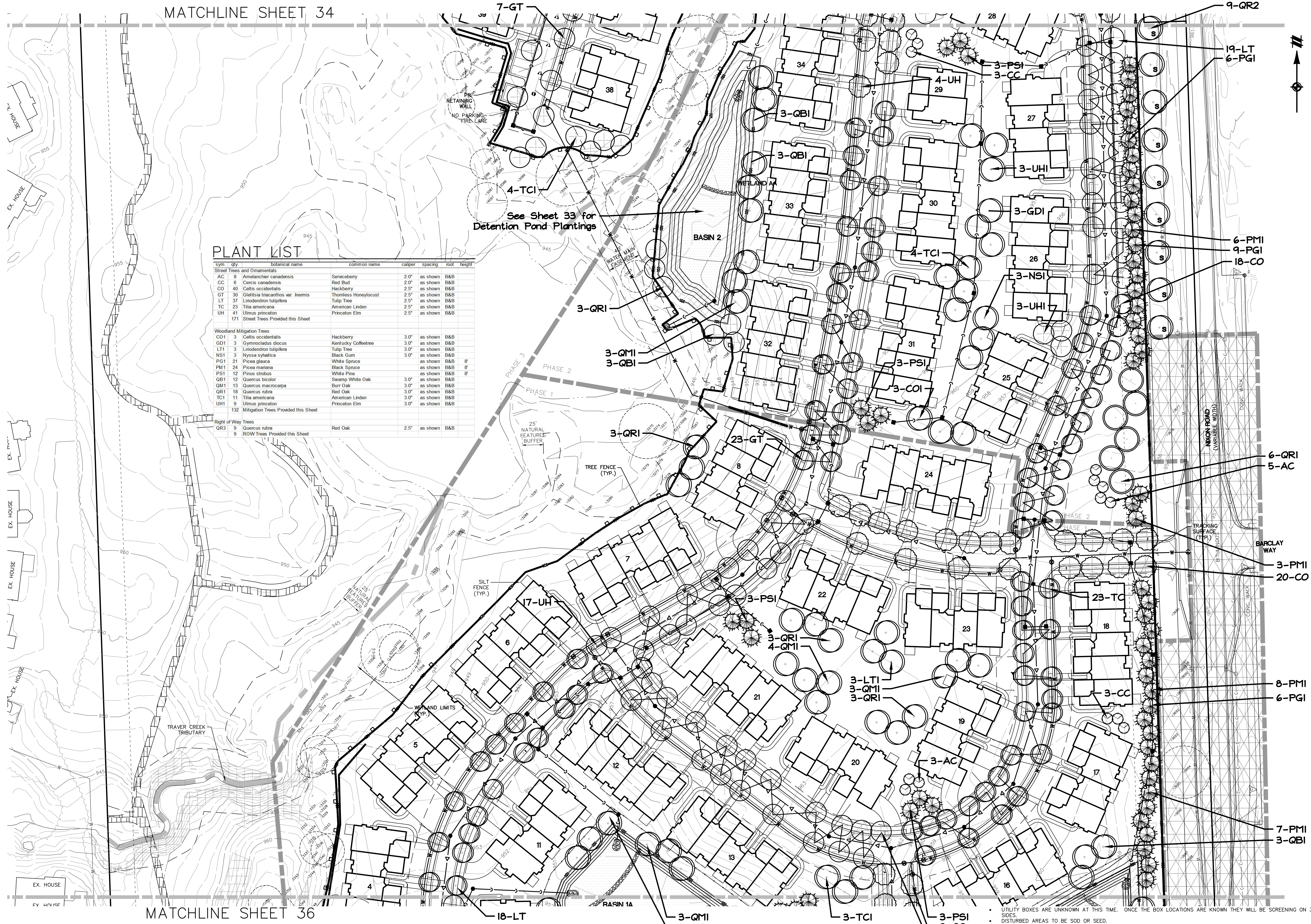
SCALE 0 25 50
1" = 50 FEET

DR. MB CH. TP
P.M. JA
BOOK --
CAD FILE:
JOB 13001862
FILE CODE: SP
SHEET NO. 34

PLANT LIST

Sym	Qty	botanical name	common name	caliper	spacing	root height
Street Trees and Ornamentals						
AC	8	Amelanchier canadensis	Serviceberry	2.0"	as shown	B&B
CC	6	Cercis canadensis	Red Bud	2.0"	as shown	B&B
CO	40	Celtis occidentalis	Hackberry	2.5"	as shown	B&B
GT	30	Gleditsia inacanthos var. Inermis	Thornless Honeylocust	2.5"	as shown	B&B
LT	37	Liriodendron tulipifera	Tulip Tree	2.5"	as shown	B&B
TC	23	Tilia americana	American Linden	2.5"	as shown	B&B
UH	41	Ulmus princeton	Princeton Elm	2.5"	as shown	B&B
171	Street Trees Provided this Sheet					
Woodland Mitigation Trees						
CD1	3	Celtis occidentalis	Hackberry	3.0"	as shown	B&B
OD1	3	Gymnocladus dioica	Kentucky Coffeetree	3.0"	as shown	B&B
LT1	3	Liriodendron tulipifera	Tulip Tree	3.0"	as shown	B&B
NS1	3	Nyssa sylvatica	Black Gum	3.0"	as shown	B&B
PG1	21	Picea glauca	White Spruce	as shown	B&B	8'
PM1	24	Picea mariana	Black Spruce	as shown	B&B	8'
PS1	12	Pinus strobus	White Pine	as shown	B&B	8'
QB1	12	Quercus bicolor	Swamp White Oak	3.0"	as shown	B&B
QM1	13	Quercus macrocarpa	Burr Oak	3.0"	as shown	B&B
QR1	18	Quercus rubra	Red Oak	3.0"	as shown	B&B
TC1	11	Tilia americana	American Linden	3.0"	as shown	B&B
UH1	9	Ulmus princeton	Princeton Elm	3.0"	as shown	B&B
132	Mitigation Trees Provided this Sheet					
Right of Way Trees						
QR3	9	Quercus rubra	Red Oak	2.5"	as shown	B&B
9	ROW Trees Provided this Sheet					

See Sheet 33 for Detention Pond Plantings



- UTILITY BOXES ARE UNKNOWN AT THIS TIME. ONCE THE BOX LOCATIONS ARE KNOWN THEY WILL BE SCREENING ON 3
- DISTURBED AREAS TO BE SO D OR SEED.
- LANDSCAPE AREAS SHALL BE IRRIGATED.
- SNOW SHALL BE STORED IN ISLANDS AND ALONG STREETS. STORAGE SHALL NOT INCLUDE DETENTION AREAS OR LANDSCAPED AREAS.
- THE STREET TREE ESCROW MUST BE PAID PRIOR TO ISSUING BUILDING PERMITS. CHECKS ARE TO BE MADE PAYABLE TO: CITY OF ANN ARBOR AND MAILED TO SYSTEMS PLANNING UNIT, 301 E. HURON ST., PO BOX 8647, ANN ARBOR, MI 48107-8647 -- ATTN: KERRY GRAY. PLEASE INCLUDE THE PROJECT NAME AND PROJECT NUMBER ON THE CHECK.

Land Development & Real Estate
 Power & Energy
 Telecommunications
 Infrastructure & Transportation
 Environmental & Solid Waste
 Water & Natural Resources

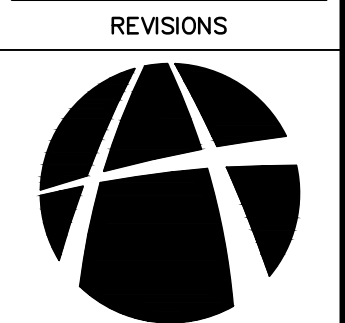
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 ANN ARBOR TOWNSHIP
 WASHTENAW COUNTY, MICHIGAN

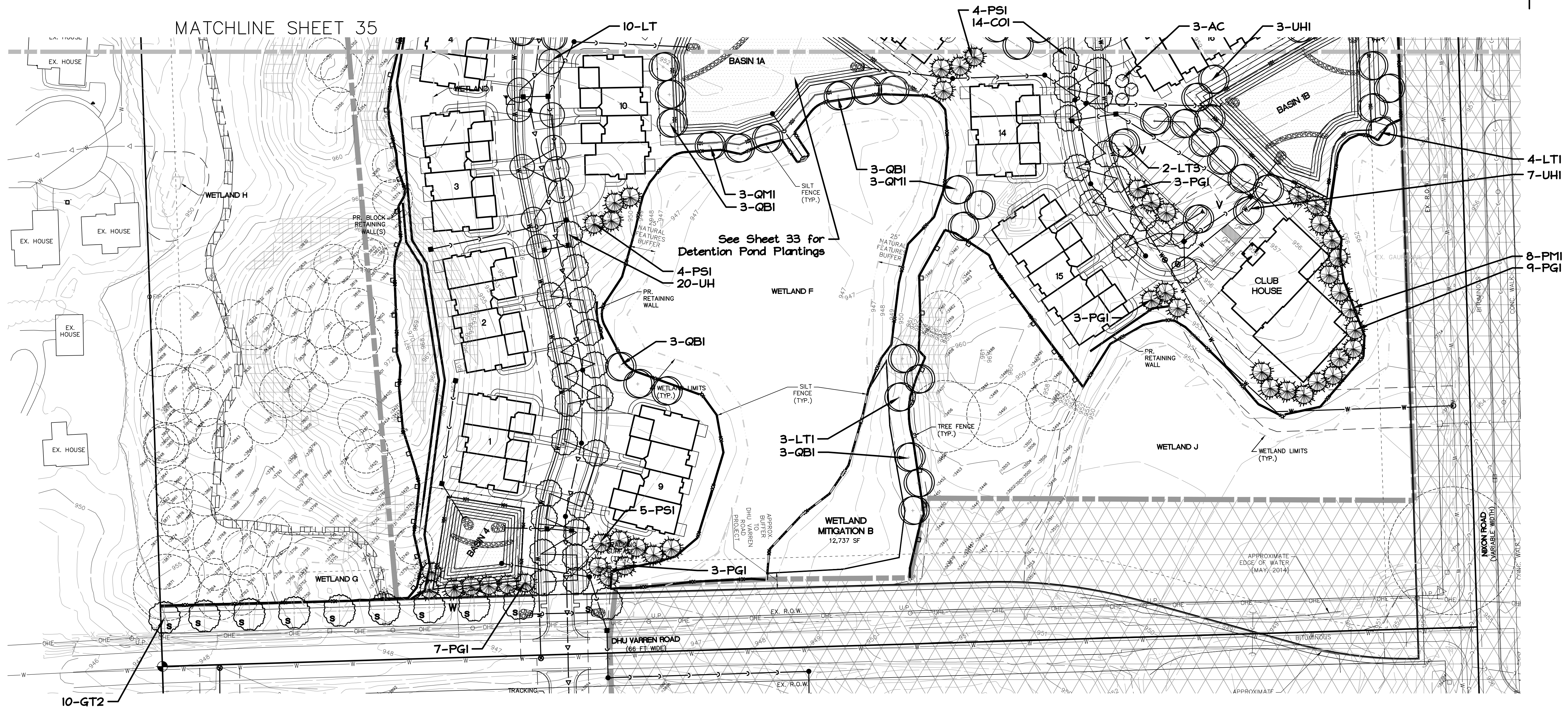
CLIENT
 TOLL BROS., INC.
 NIXON FARM NORTH
 LANDSCAPE PLAN - MIDDLE

DATE
 JULY 28, 2014
 2014-09-10 PER CITY
 2014-11-4 PER CITY



SCALE 0 25 50
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MATCHLINE SHEET 35



PLANT LIST

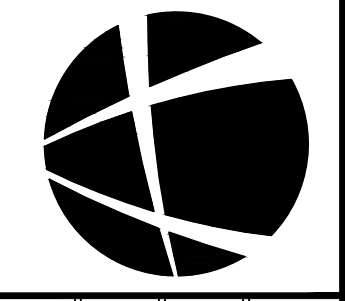
sym.	qty.	botanical name	common name	caliper	spacing	root	height
Street Trees and Ornamentals							
AC	3	Amelanchier canadensis	Serviceberry	2.0"	as shown	B&B	
LT	10	Liriodendron tulipifera	Tulip Tree	2.5"	as shown	B&B	
UH	20	Ulmus princetoni	Princeton Elm	2.5"	as shown	B&B	
30 Street Trees Provided this Sheet							
Woodland Mitigation Trees							
CO1	14	Celtis occidentalis	Hackberry	3.0"	as shown	B&B	
LT1	7	Liriodendron tulipifera	Tulip Tree	3.0"	as shown	B&B	
PG1	25	Picea glauca	White Spruce	as shown	B&B	8'	
PM1	8	Picea mariana	Black Spruce	as shown	B&B	8'	
PS1	13	Pinus strobus	White Pine	as shown	B&B	8'	
QB1	12	Quercus bicolor	Swamp White Oak	3.0"	as shown	B&B	
QM1	6	Quercus macrocarpa	Burr Oak	3.0"	as shown	B&B	
UH1	10	Ulmus princetoni	Princeton Elm	3.0"	as shown	B&B	
95 Mitigation Trees Provided this Sheet							
Right of Way Trees							
GT2	10	Gleditsia triacanthos var. inermis	Thornless Honeylocust	2.5"	as shown	B&B	
10 ROW Trees Provided this Sheet							
VUA Trees							
LT3	2	Liriodendron tulipifera	Tulip Tree	2.5"	as shown	B&B	

- UTILITY BOXES ARE UNKNOWN AT THIS TIME. ONCE THE BOX LOCATIONS ARE KNOWN THEY WILL BE SCREENING ON 3 SIDES.
- DISTURBED AREAS TO BE SOD OR SEED.
- LANDSCAPE AREAS SHALL BE IRRIGATED.
- SNOW SHALL BE STORED IN ISLANDS AND ALONG STREETS. STORAGE SHALL NOT INCLUDE DETENTION AREAS OR LANDSCAPED AREAS.
- THE STREET TREE ESCROW MUST BE PAID PRIOR TO ISSUING BUILDING PERMITS. CHECKS ARE TO MADE PAYABLE TO: CITY OF ANN ARBOR AND MAILED TO SYSTEMS PLANNING UNIT, 301 E. HURON ST., PO BOX 8647, ANN ARBOR, MI 48107-8647 -- ATTN: KERRY GRAY. PLEASE INCLUDE THE PROJECT NAME AND PROJECT NUMBER ON THE CHECK.
- TREES SHALL BE PLANTED 5'-8' FROM UTILITY LEADS.

K:\1509082-SP\DWG\PLAN SET\STATE PLAN\NIXON\1509082SP-11-LESCB 10/16/2014 3:35 PM MICHAEL WISDGA

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ANN ARBOR TOWNSHIP
WASHTENAW COUNTY, MICHIGAN

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NIXON FARM NORTH
LANDSCAPE PLAN - SOUTH

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2014-11-4 PER CITY

REVISIONS

SCALE 0 25 50
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