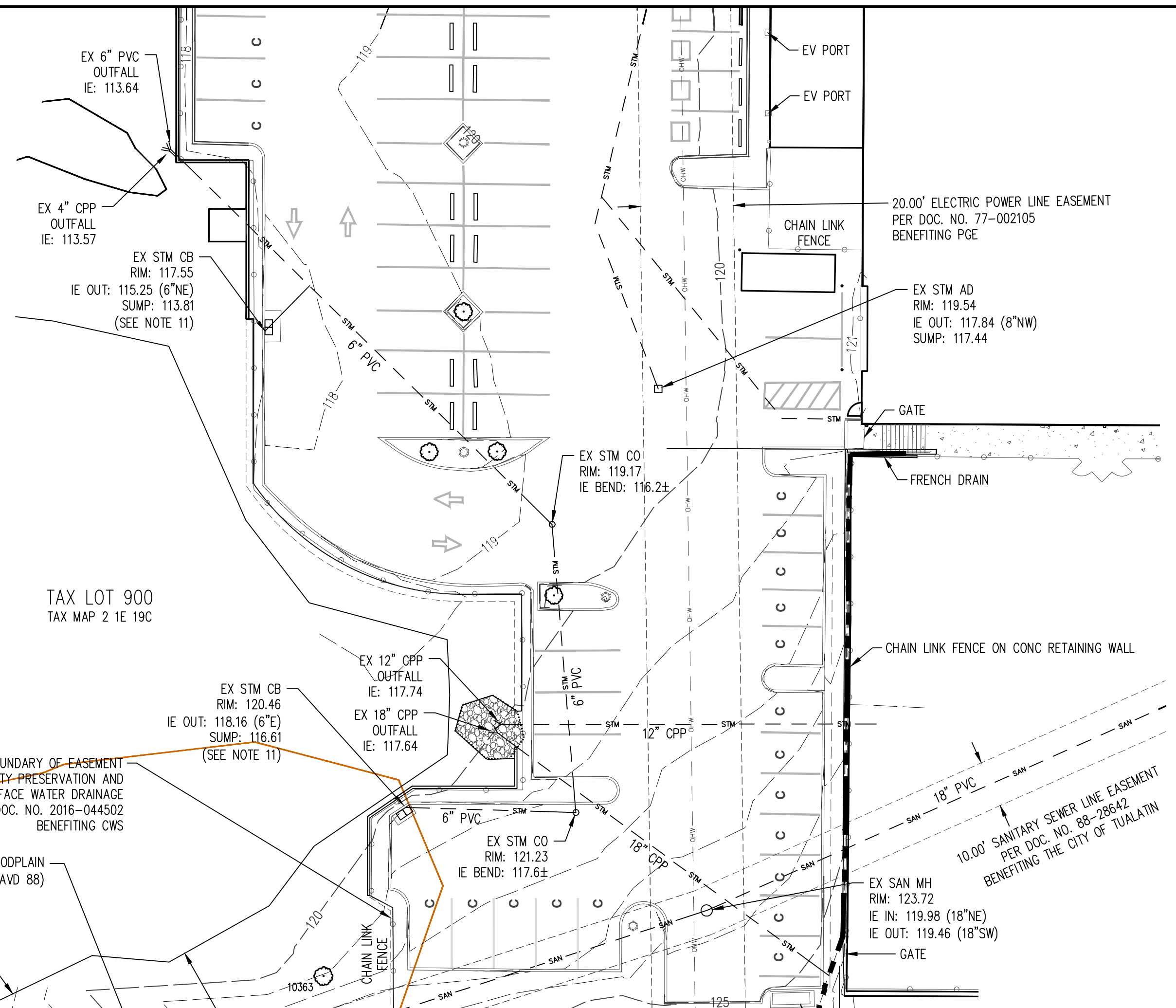


NOTES:

- NO PUBLIC OR PRIVATE LOCATES WERE UTILIZED FOR THIS SURVEY, ANY UTILITIES SHOWN ARE BASED ON RECORD CONSTRUCTION AS-BUILT INFORMATION AND/OR EXISTING STRUCTURES.
- * THE SURVEYOR MAKES NO GUARANTEE THAT THE UNDERGROUND LOCATES REPRESENT THE ONLY UTILITIES IN THE AREA. CONTRACTORS ARE RESPONSIBLE FOR VERIFYING ALL EXISTING CONDITIONS PRIOR TO BEGINNING CONSTRUCTION.
- FIELD WORK WAS CONDUCTED JUNE 17-18, AND NOVEMBER 12, 13 AND 20, 2025.
- VERTICAL DATUM: ELEVATIONS ARE BASED ON WASHINGTON COUNTY BENCHMARK NO. 469, A BRASS DISK AT THE SOUTHEAST CORNER OF THE FELLOW GUARD OF A BRIDGE ON NYBERG ROAD APPROXIMATELY 0.4 MILES EAST OF I-5. ELEVATION = 124.436 (NGVD 29) AND UTILIZING THE NGS COORDINATE CONVERSION AND TRANSFORMATION TOOL (NCAT) TO TRANSFORM THE VERTICAL DATUM +3.49 FEET TO NAVD 88. THE ELEVATIONS SHOWN ON THIS MAP ARE PER THE NAVD 88 VERTICAL DATUM.
- CONTOUR INTERVAL IS 1-FOOT.
- THIS IS NOT A PROPERTY BOUNDARY SURVEY TO BE RECORDED WITH THE COUNTY SURVEYOR. BOUNDARIES MAY BE PRELIMINARY AND SHOULD BE CONFIRMED WITH THE STAMPING SURVEYOR PRIOR TO RELYING ON FOR DETAILED DESIGN OR CONSTRUCTION.
- BUILDING FOOTPRINTS ARE MEASURED TO SIDING UNLESS NOTED OTHERWISE. CONTACT SURVEYOR WITH QUESTIONS REGARDING BUILDING TIES.
- TREES WITH DIAMETER OF 6" AND GREATER ARE SHOWN. TREE DIAMETERS WERE MEASURED UTILIZING A DIAMETER TAPE AT BREAST HEIGHT. TREE INFORMATION IS SUBJECT TO ARBORIST INSPECTION.
- THE FEMA FLOODPLAIN SHOWN IS PER FLOOD INSURANCE STUDY (FIS) VOLUME 3 OF WASHINGTON COUNTY, OREGON AND INCORPORATED AREAS, CITY OF TUALATIN, COMMUNITY NUMBER 410277, SHEET 102P, NYBERG SLOUGH. BASE FLOOD ELEVATION (BFE) = 126.00' (NAVD 88).
- EASEMENTS SHOWN ON SUBJECT PROPERTY ARE BASED ON A TITLE REPORT FROM STEWART TITLE GUARANTY COMPANY, ORDER NO. 24000201702, WITH AN EFFECTIVE DATE OF JANUARY 17, 2025. ANY OFFSITE EASEMENTS SHOWN ARE PER HISTORIC AKS JOB NO. 4490 WITH DATES SPANNING FROM 2015-2020, AND AN ALTA SURVEY PROVIDED BY OTHERS BY ANDY PARIS AND ASSOCIATES, INC. DATED AUGUST 12, 2022.
- THE WETLAND BOUNDARY AND 50-FOOT VEGETATED CORRIDOR AS SHOWN WERE DELINEATED BY AKS ON APRIL 3, 2025.
- THE INVERT ELEVATIONS (IE) OF THE OUTLETS IN THE EXISTING CATCH BASINS AS INDICATED ARE PER AS-BUILT PLAN "STAFFORD HILLS CLUB" BY AKS ENGINEERING & FORESTRY, LLC WITH A DATE OF 11/25/2019. BOTH CATCH BASINS HAVE A FILTRATION SIDE SEPERATED BY A WEIR

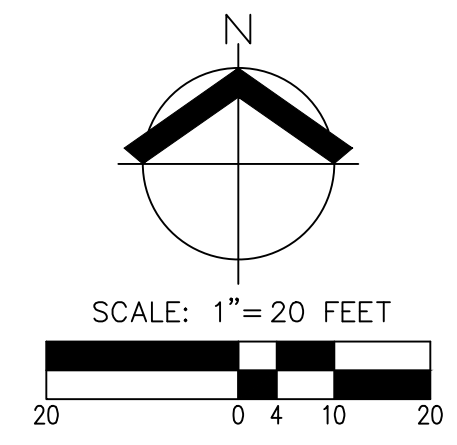
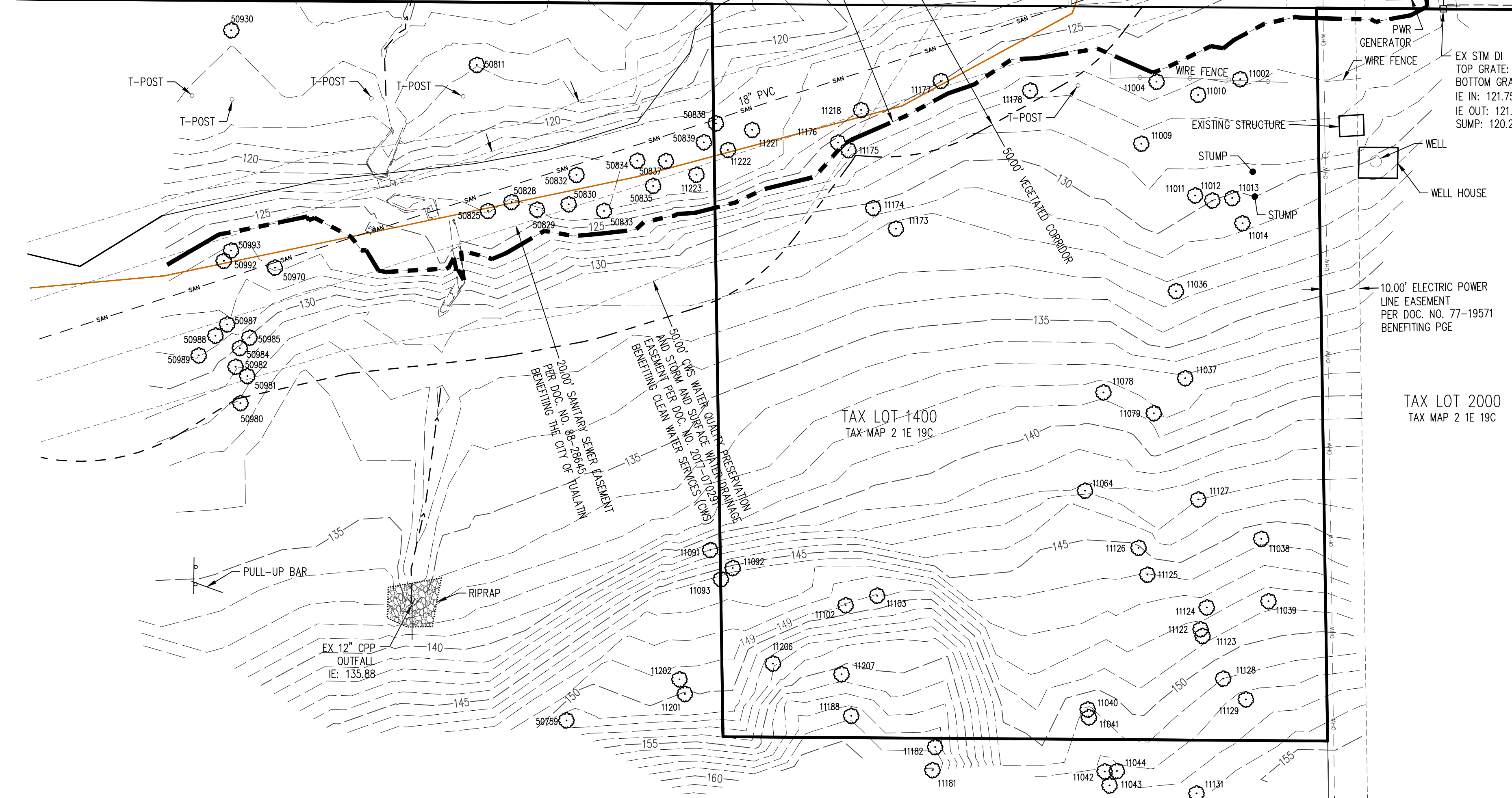


LEGEND

EXISTING		DECIDUOUS TREE	EXISTING		STORM DRAIN CLEAN OUT
EXISTING		CONIFEROUS TREE	EXISTING		STORM DRAIN CATCH BASIN
EXISTING		FIRE HYDRANT	EXISTING		STORM DRAIN AREA DRAIN
EXISTING		WATER BLOWOFF	EXISTING		STORM DRAIN MANHOLE
EXISTING		WATER METER	EXISTING		GAS METER
EXISTING		WATER VALVE	EXISTING		GAS VALVE
EXISTING		DOUBLE CHECK VALVE	EXISTING		GUY WIRE ANCHOR
EXISTING		AIR RELEASE VALVE	EXISTING		UTILITY POLE
EXISTING		SANITARY SEWER CLEAN OUT	EXISTING		POWER VAULT
EXISTING		SANITARY SEWER MANHOLE	EXISTING		POWER JUNCTION BOX
EXISTING		SIGN	EXISTING		POWER PEDESTAL
EXISTING		STREET LIGHT	EXISTING		COMMUNICATIONS VAULT
EXISTING		MAILBOX	EXISTING		COMMUNICATIONS JUNCTION BOX
			EXISTING		COMMUNICATIONS RISER

EXISTING		RIGHT-OF-WAY LINE
EXISTING		BOUNDARY LINE
EXISTING		PROPERTY LINE
EXISTING		CENTERLINE
EXISTING		DITCH
EXISTING		CURB
EXISTING		EDGE OF PAVEMENT
EXISTING		EASEMENT
EXISTING		FENCE LINE
EXISTING		GRAVEL EDGE
EXISTING		POWER LINE
EXISTING		OVERHEAD WIRE
EXISTING		COMMUNICATIONS LINE
EXISTING		FIBER OPTIC LINE
EXISTING		GAS LINE
EXISTING		STORM DRAIN LINE
EXISTING		SANITARY SEWER LINE
EXISTING		WATER LINE
EXISTING		RECLAIMED WATER LINE

SOME SYMBOLS AND LINETYPES MAY NOT BE USED ON THIS MAP



TREE TABLE			TREE TABLE			TREE TABLE			TREE TABLE		
TREE NUMBER	TYPE	DBH (IN.)	TREE NUMBER	TYPE	DBH (IN.)	TREE NUMBER	TYPE	DBH (IN.)	TREE NUMBER	TYPE	DBH (IN.)
10363	DECIDUOUS	20	11078	DECIDUOUS	7	11177	DECIDUOUS	17	50833	DECIDUOUS	10,14
11002	DECIDUOUS	6	11079	DECIDUOUS	6,9	11178	DECIDUOUS	6,13	50834	DECIDUOUS	15
11004	DECIDUOUS	7,7,9	11091	DECIDUOUS	8	11181	DECIDUOUS	6	50835	DECIDUOUS	14
11009	DECIDUOUS	6	11092	DECIDUOUS	6,7	11182	DECIDUOUS	6,7	50837	DECIDUOUS	12
11010	DECIDUOUS	6,6,7	11093	DECIDUOUS	6	11188	DECIDUOUS	6	50838	DECIDUOUS	16
11011	DECIDUOUS	8,9	11102	DECIDUOUS	16	11201	DECIDUOUS	18	50839	DECIDUOUS	15
11012	DECIDUOUS	7	11103	DECIDUOUS	21	11202	DECIDUOUS	15	50970	DECIDUOUS	16
11013	DECIDUOUS	10	11122	DECIDUOUS	9	11206	DECIDUOUS	6	50980	DECIDUOUS	6,6
11014	DECIDUOUS	6	11123	DECIDUOUS	8,9	11207	DECIDUOUS	6	50981	DECIDUOUS	6
11036	DECIDUOUS	6	11124	DECIDUOUS	8	11218	DECIDUOUS	10,12	50982	DECIDUOUS	8
11037	DECIDUOUS	10	11125	DECIDUOUS	9	11221	DECIDUOUS	14,19	50984	DECIDUOUS	7
11038	DECIDUOUS	6,8,9,11,12	11126	DECIDUOUS	7	11222	DECIDUOUS	12	50985	DECIDUOUS	6
11039	DECIDUOUS	11	11127	DECIDUOUS	6,7	11223	DECIDUOUS	15	50987	DECIDUOUS	8
11040	DECIDUOUS	6	11128	DECIDUOUS	11	11225	DECIDUOUS	13	50988	DECIDUOUS	10
11041	DECIDUOUS	7	11129	DECIDUOUS	11	50759	DECIDUOUS	7	50989	DECIDUOUS	7
11042	DECIDUOUS	7	11131	DECIDUOUS	19	50825	DECIDUOUS	20	50992	DECIDUOUS	10
11043	DECIDUOUS	7	11173	DECIDUOUS	47	50828	DECIDUOUS	14	50993	DECIDUOUS	9
11044	DECIDUOUS	6	11174	DECIDUOUS	9	50829	DECIDUOUS	16			
11048	DECIDUOUS	19	11175	DECIDUOUS	10	50830	DECIDUOUS	16			
11064	DECIDUOUS	6	11176	DECIDUOUS	13	50832	DECIDUOUS	16			

AKS ENGINEERING & FORESTRY, LLC
12065 SW HERMAN RD, STE 100
TUALATIN, OR 97062
503.563.6151
WWW.AKS-ENG.COM

ENGINEERING - SURVEYING - NATURAL RESOURCES
FORESTRY - PLANNING - LANDSCAPE ARCHITECTURE

STAFFORD HILLS CLUB
PARKING EXPANSION

TUALATIN
TAX LOT 1400

EXISTING CONDITIONS
PLAN

OREGON
CLACKAMAS COUNTY TAX MAP 2 1E 19C

DESIGNED BY:
DRAWN BY: MRL/HDS
MANAGED BY: MSK
CHECKED BY: MRL/MSK
DATE: 12/02/2025

REGISTERED
PROFESSIONAL
LAND SURVEYOR

OREGON
JULY 9, 2024
MARC R. LINDSEY
95992PLS
RENEWS: 12/31/2026

REVISIONS

JOB NUMBER
4490-02

SHEET
P01

AKS DRAWING FILE: 4490-02_P01_EXISTING.DWG | LAYOUT: 1

**PRELIMINARY TREE PRESERVATION AND REMOVAL PLAN
 PARKING EXPANSION
 STAFFORD HILLS CLUB
 TUALATIN, OR**

**PRELIMINARY
 NOT FOR
 CONSTRUCTION**

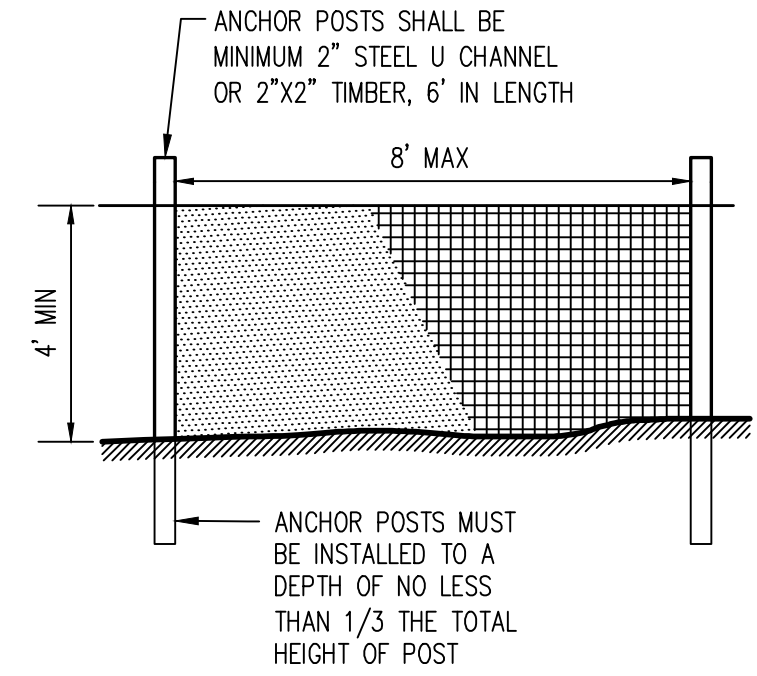
JOB NUMBER: 4490-02
 DATE: 04/22/2026
 DESIGNED BY: TMI
 DRAWN BY: AMJ
 CHECKED BY: CEG

P02

LEGEND

EXISTING GROUND CONTOUR (1 FT)	---	149
EXISTING GROUND CONTOUR (5 FT)	---	150
FINISHED GRADE CONTOUR (1 FT)	---	149
FINISHED GRADE CONTOUR (5 FT)	---	150
EXISTING CONIFEROUS TREE		
EXISTING DECIDUOUS TREE		
TREE REMOVAL		
TREE PROTECTION/CONSTRUCTION FENCE (TREE PROTECTION AREA)		
ORANGE SEDIMENT FENCE		
STRAW WATTLE		
ASSUMED TREE ROOT ZONE (1-FT RADIUS PER 1-IN OF DBH)		

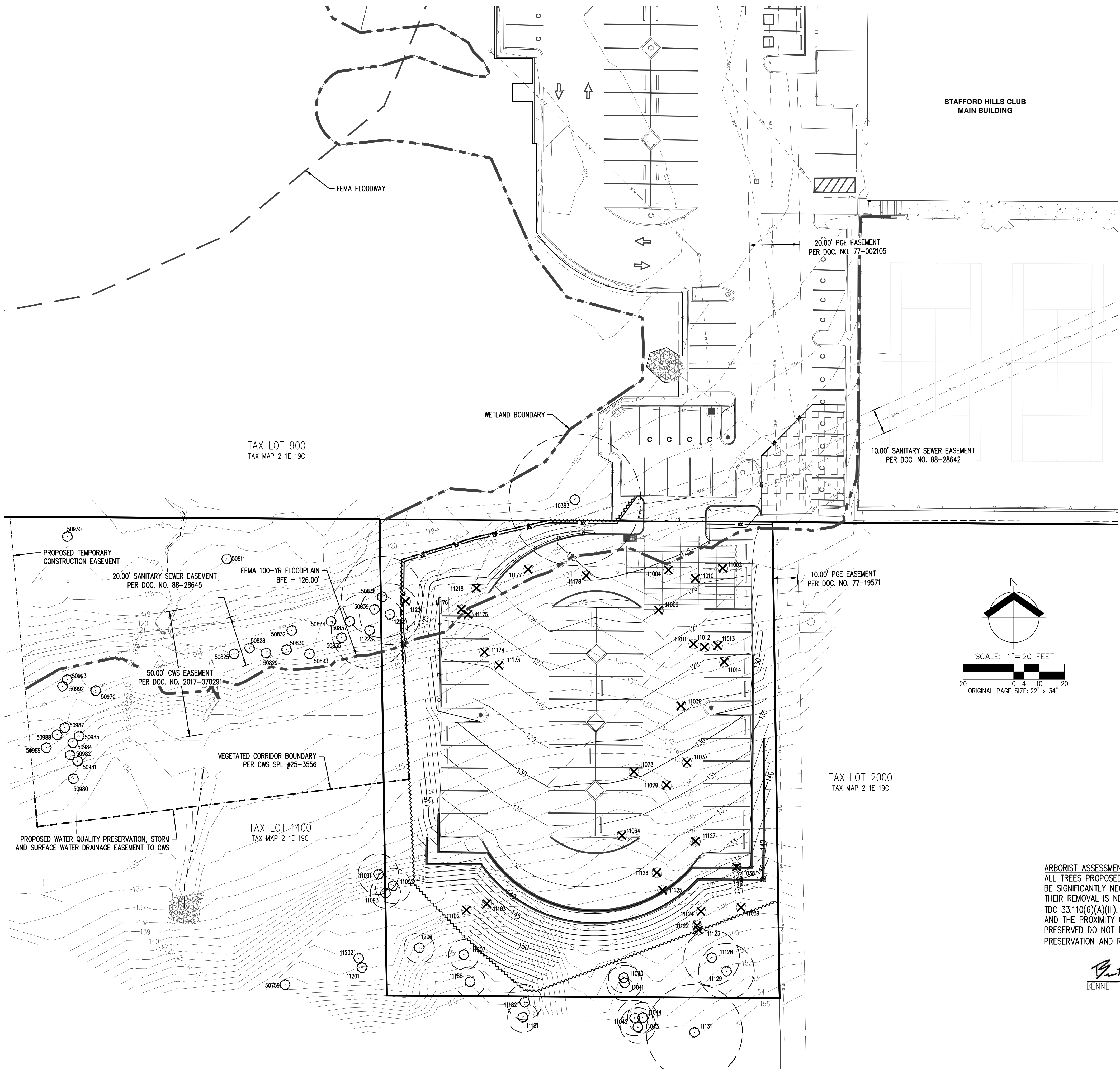
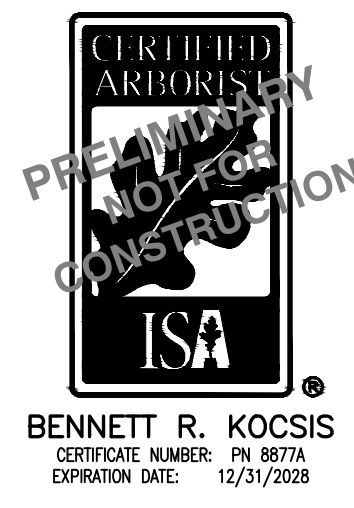
NOTE:
 SURVEY INCLUDES TREES 6" DBH AND ABOVE. PER TUALATIN DEVELOPMENT CODE CHAPTER 31, TREES UNDER 8" DBH ARE UNREGULATED. SEE THE DETAILED TREE INVENTORY ON SHEET P03 FOR TREE SIZES AND DETAILS ON REGULATED TREE REMOVAL.



- NOTES:**
1. BLAZE ORANGE PLASTIC MESH FENCE FOR TREE PROTECTION DEVICE OR APPROVED EQUAL.
 2. AVOID DAMAGE TO TREE ROOT ZONE. DO NOT DAMAGE OR SEVER LARGE ROOTS WHEN INSTALLING POSTS.
 3. DEVICE SHALL BE MAINTAINED THROUGHOUT CONSTRUCTION.
- TREE PROTECTION / CONSTRUCTION FENCE**

ARBORIST ASSESSMENT NOTE:
 ALL TREES PROPOSED FOR REMOVAL ARE IN DIRECT CONFLICT WITH, OR WILL BE SIGNIFICANTLY NEGATIVELY IMPACTED BY, THE PROPOSED IMPROVEMENTS. THEIR REMOVAL IS NECESSARY TO CONSTRUCT PROPOSED IMPROVEMENTS PER TDC 33.110(6)(A)(III). BASED ON THE CONDITION/LOCATION OF THE TREES AND THE PROXIMITY OF THE PROPOSED IMPROVEMENTS, TREES TO BE PRESERVED DO NOT PRESENT AN IMMINENT HAZARD. THIS PRELIMINARY TREE PRESERVATION AND REMOVAL PLAN MEETS THE CRITERIA OF TDC 33.110(5).

B.H.K.
 BENNETT KOCSIS, CERTIFIED ARBORIST
 PN-8877A



Detailed Tree Inventory for Stafford Hills Club Parking Expansion

AKS Job No. [4490-02] - Evaluation Date: 12/16/2025 - Evaluated by: BRK

Tree #	DBH (in.)	Avg. Crown Radius (ft)	Tree Species Common Name (Scientific name)	Comments	Health Rating**	Structure Rating***	Remove/ Preserve
10363	26	35	Oregon Ash (Fraxinus latifolia)	Some broken limbs; Some epicormic sprouting	1	2	Preserve
11004	7,7,9	9	English Hawthorn (Crataegus monogyna)	100% ivy coverage; Broken limbs; Low vigor	2	2	Remove
11011	8,9	15	Sweet Cherry (Prunus avium)	Codominant base; 50% ivy coverage	2	2	Remove
11013	10	13	Sweet Cherry (Prunus avium)	100% ivy coverage; Asymmetrical canopy (N)	2	2	Remove
11037	10	13	Sweet Cherry (Prunus avium)	Good condition	1	1	Remove
11038	6,8,9,11,12	13	Sweet Cherry (Prunus avium)	100% ivy coverage; Very sparse canopy; In decline	3	2	Remove
11039	11	11	Sweet Cherry (Prunus avium)	Previously removed codominant stem; Sluffing bark; Decay; In decline	3	3	Remove
11079	6,9	10	Sweet Cherry (Prunus avium)	Codominant base with included bark	1	2	Remove
11091	8	12	Black Cottonwood (Populus trichocarpa)	OFFSITE; Good condition	1	1	Preserve
11102	16	19	Black Cottonwood (Populus trichocarpa)	Good condition	1	1	Remove
11103	21	18	Black Cottonwood (Populus trichocarpa)	Good condition	1	1	Remove
11122	9	16	Sweet Cherry (Prunus avium)	Top lean (S)	1	2	Remove
11123	8,9	14	Sweet Cherry (Prunus avium)	Trunks lean (E & W)	1	2	Remove
11124	8	8	Sweet Cherry (Prunus avium)	Good condition	1	1	Remove
11125	9	7	Sweet Cherry (Prunus avium)	Good condition	1	1	Remove
11128	11	10	Sweet Cherry (Prunus avium)	Large cavity with decay in base; Broken top	2	3	Preserve
11129	11	14	Sweet Cherry (Prunus avium)	Lean (S)	1	2	Preserve
11131	19	14	Sweet Cherry (Prunus avium)	OFFSITE; Good condition	1	1	Preserve
11173	26,21,19	21	Bigleaf Maple (Acer macrophyllum)	Codominant base with included bark 19" trunk has many dead limbs	2	2	Remove
11174	9	15	English Hawthorn (Crataegus monogyna)	Some dead and broken limbs	2	2	Remove
11175	10	15	Red Alder (Alnus rubra)	Good condition	1	1	Remove
11176	13	14	Red Alder (Alnus rubra)	Good condition	1	1	Remove
11177	17	12	Red Alder (Alnus rubra)	Some broken tops; Large crack along one leader	1	2	Remove
11178	6,13	10	English Hawthorn (Crataegus monogyna)	Embedded fence wire; Some sapsucker bore holes	1	2	Remove
11201	18	15	Black Cottonwood (Populus trichocarpa)	OFFSITE; Good condition	1	1	Preserve
11202	15	16	Black Cottonwood (Populus trichocarpa)	OFFSITE; Good condition	1	1	Preserve
11218	10,12	16	Red Alder (Alnus rubra)	Codominant base with included bark; 10" trunk broken top; 10" trunk lean (N)	2	2	Remove
11221	14,19	25	Red Alder (Alnus rubra)	Codominant base; 14" stem lean (N); Broken limbs; Dead limbs	2	2	Remove
11222	12	20	Red Alder (Alnus rubra)	Some dead and broken limbs	2	2	Preserve
11223	15	14	Red Alder (Alnus rubra)	OFFSITE; Sparse canopy; Many dead limbs; In decline	3	2	Preserve
50811	7,9,12	15	Willow (Salix spp.)	OFFSITE; Broken limbs	1	2	Preserve
50825	20	21	Red Alder (Alnus rubra)	OFFSITE; Half dead; In decline	3	3	Preserve
50828	14	15	Red Alder (Alnus rubra)	OFFSITE; Some dead limbs; Low vigor	2	1	Preserve
50829	16	15	Red Alder (Alnus rubra)	OFFSITE; Some dead limbs; Low vigor	2	1	Preserve
50830	16	18	Red Alder (Alnus rubra)	OFFSITE; Sweep (N); Many dead branches; Low vigor; In decline	3	2	Preserve
50832	16	25	Red Alder (Alnus rubra)	OFFSITE; Lean (N)	1	2	Preserve
50833	10,14	12	Red Alder (Alnus rubra)	OFFSITE; Codominant base with included bark; Sweep (N); Some dead branches	2	2	Preserve
50834	15	35	Red Alder (Alnus rubra)	OFFSITE; Lean (N); Asymmetrical canopy (N)	1	2	Preserve
50835	14	16	Red Alder (Alnus rubra)	OFFSITE; Dead limbs; broken limbs; Low vigor	2	2	Preserve
50837	12	14	Red Alder (Alnus rubra)	OFFSITE; Sweep (N)	1	2	Preserve
50838	16	19	Red Alder (Alnus rubra)	Sweep (N); Asymmetrical canopy (N); Some broken limbs	1	2	Preserve
50839	15	0	Red Alder (Alnus rubra)	OFFSITE; Dead (~80"); Lean (N)	3	3	Preserve
50930	15	13	Willow (Salix spp.)	OFFSITE; Codominant top; One stem dead and broken	2	2	Preserve
50970	16	0	Red Alder (Alnus rubra)	OFFSITE; Dead (~60")	3	3	Preserve
50982	8	6	Sweet Cherry (Prunus avium)	OFFSITE; Dead branches	2	1	Preserve
50987	8	6	Red Alder (Alnus rubra)	OFFSITE; Broken top; Dad branches; Low vigor	2	2	Preserve
50988	10	11	European White Birch (Betula pendula)	OFFSITE; Lean (W)	1	2	Preserve
50992	10	10	Red Alder (Alnus rubra)	OFFSITE; Top half dead; Lean (W); In decline	3	2	Preserve
50993	9	7	Red Alder (Alnus rubra)	OFFSITE; Low vigor; Dead branches	2	1	Preserve
11002*	6	10	Sweet Cherry (Prunus avium)	Good condition	1	1	Remove
11009*	6	9	Beaked Hazelnut (Corylus cornuta)	100% ivy coverage; Broken limbs; Dead limbs	2	2	Remove
11010*	6,6,7	10	Beaked Hazelnut (Corylus cornuta)	Most leaders dead; Broken tops; 100% ivy coverage; In decline	3	3	Remove
11012*	7	10	Sweet Cherry (Prunus avium)	50% ivy coverage; Good condition	1	1	Remove
11014*	6	10	Sweet Cherry (Prunus avium)	Good condition	1	1	Remove
11036*	6	11	Sweet Cherry (Prunus avium)	Crooked bole	1	2	Remove
11040*	6	7	Sweet Cherry (Prunus avium)	Good condition	1	1	Preserve
11041*	7	7	Sweet Cherry (Prunus avium)	Good condition	1	1	Preserve
11042*	7	6	Sweet Cherry (Prunus avium)	OFFSITE; Good condition	1	1	Preserve
11043*	7	6	Sweet Cherry (Prunus avium)	OFFSITE; Good condition	1	1	Preserve
11044*	6	6	Sweet Cherry (Prunus avium)	OFFSITE; Good condition	1	1	Preserve
11064*	6	6	Sweet Cherry (Prunus avium)	Good condition	1	1	Remove
11078*	7	10	Sweet Cherry (Prunus avium)	Good condition	1	1	Remove
11092*	6,7	13	Black Cottonwood (Populus trichocarpa)	Good condition	1	1	Preserve
11093*	6	7	Sweet Cherry (Prunus avium)	Broken limbs	1	2	Preserve
11126*	7	9	Sweet Cherry (Prunus avium)	Good condition	1	1	Remove
11127*	6,7	8	Sweet Cherry (Prunus avium)	Good condition	1	1	Remove
11181*	6	8	Bigleaf Maple (Acer macrophyllum)	OFFSITE; Good condition	1	1	Preserve
11182*	6,7	8	Hawthorn (Crataegus spp.)	OFFSITE; Codominant base with included bark	1	2	Preserve
11188*	6	5	Bigleaf Maple (Acer macrophyllum)	Good condition	1	1	Preserve
11206*	6	6	Bigleaf Maple (Acer macrophyllum)	Good condition	1	1	Preserve
11207*	6	5	Bigleaf Maple (Acer macrophyllum)	Good condition	1	1	Preserve
50759*	7	7	Black Cottonwood (Populus trichocarpa)	OFFSITE; Good condition	1	1	Preserve
50980*	6,6	13	Black Cottonwood (Populus trichocarpa)	OFFSITE; Codominant base with included bark; Lean (S)	1	2	Preserve
50981*	6	8	Sweet Cherry (Prunus avium)	OFFSITE; Lean (S)	1	2	Preserve
50984*	7	5	Sweet Cherry (Prunus avium)	OFFSITE; Dead branches	2	1	Preserve
50985*	6	0	Sweet Cherry (Prunus avium)	OFFSITE; Dead; Lean (W)	3	3	Preserve
50989*	7	10	Black Cottonwood (Populus trichocarpa)	OFFSITE; Uprooting (S)	3	3	Preserve

Total # of Existing Trees Inventoried = 77

Total # of Existing Onsite Trees = 43

Total # of Existing Onsite Trees to be Preserved = 12

Total # of Existing Onsite Trees to be Removed = 31

Total # of Existing Onsite Regulated Trees to be Removed = 21

Total # of Existing Onsite Unregulated Trees to be Removed = 10

Total # of Existing Offsite Trees = 34

Total # of Existing Offsite Trees to be Preserved = 34

Total # of Existing Offsite Trees to be Removed = 0

***Tree #:**

Tree is under 8" DBH and is not considered a regulated tree per Tualatin Development Code Chapter 31.

****Health Rating:**

1 = Good Health - A tree that exhibits typical foliage, bark, and root characteristics, for its respective species, shows no signs of infection or infestation, and has a high level of vigor and vitality.

2 = Fair Health - A tree that exhibits some abnormal health characteristics and/or shows some signs of infection or infestation, but may be reversed or abated with supplemental treatment.

3 = Poor Health - A tree that is in significant decline, to the extent that supplemental treatment would not likely result in reversing or abating its decline.

*****Structure Rating:**

1 = Good Structure - A tree that exhibits typical physical form characteristics, for its respective species, shows no signs of structural defects of the canopy, trunk, and/or root system.

2 = Fair Structure - A tree that exhibits some abnormal physical form characteristics and/or some signs of structural defects, which reduce the structural integrity of the tree, but are not indicative of imminent physical failure, and may be corrected using arboricultural abatement methods.

3 = Poor Structure - A tree that exhibits extensively abnormal physical form characteristics and/or significant structural defects that substantially reduces the structural viability of the tree, cannot feasibly be abated, and are indicative of imminent physical failure.

Arborist Disclosure Statement:

Arborists are tree specialists who use their education, knowledge, training, and experience to examine trees, recommend measures to enhance the health of trees, and attempt to reduce the risk of living near trees. The Client and Jurisdiction may choose to accept or disregard the recommendations of the arborist, or seek additional advice. Arborists cannot detect every condition that could possibly lead to the structural failure of a tree. Trees are living organisms that fall in ways we do not fully understand. Conditions are often hidden within trees and below ground. Arborists cannot guarantee that a tree will be healthy or safe under all circumstances, or for a specified period of time. Likewise, remedial treatments, like medicine, cannot be guaranteed. Trees can be managed, but they cannot be controlled. To live near trees is to accept some degree of risk. The only way to eliminate all risk associated with trees is to eliminate all trees. Neither this author nor AKS Engineering & Forestry, LLC have assumed any responsibility for liability associated with the trees on or adjacent to this site.

At the completion of construction, all trees should once again be reviewed. Land clearing and removal of adjacent trees can expose previously unseen defects and otherwise healthy trees can be damaged during construction.

TREE PRESERVATION NOTES:

PLACING MATERIALS NEAR TREES:

- NO PERSON MAY CONDUCT ANY ACTIVITY WITHIN THE TREE PROTECTION AREA OF ANY TREE DESIGNATED TO REMAIN, INCLUDING, BUT NOT LIMITED TO, PARKING EQUIPMENT, PLACING SOLVENTS, STORING BUILDING MATERIAL AND SOIL DEPOSITS, DUMPING CONCRETE WASHOUT.

ATTACHMENTS TO TREES:

- DURING CONSTRUCTION, NO PERSON SHALL ATTACH ANY OBJECT TO ANY TREE DESIGNATED FOR PROTECTION.

GRADING NEAR TREES:

- THE GRADE SHALL NOT BE ELEVATED OR REDUCED WITHIN THE TREE PROTECTION AREA OF TREES TO BE PRESERVED WITHOUT THE PROJECT ARBORIST'S AUTHORIZATION.
- IF THE GRADE ADJACENT TO A PRESERVED TREE IS RAISED SUCH THAT IT COULD SLOUGH OR ERODE INTO THE TREE PROTECTION AREA, IT SHALL BE PERMANENTLY STABILIZED TO PREVENT SUFFOCATION OF THE ROOTS.
- THE APPLICANT SHALL NOT INSTALL AN IMPERVIOUS SURFACE WITHIN THE TREE PROTECTION AREA WITHOUT THE AUTHORIZATION OF THE PROJECT ARBORIST.
- TO THE GREATEST EXTENT PRACTICAL, UTILITY TRENCHES SHALL BE LOCATED OUTSIDE OF THE TREE PROTECTION AREA. THE PROJECT ARBORIST MAY REQUIRE THAT UTILITIES BE TUNNELED UNDER THE ROOTS OF TREES TO BE RETAINED IF THE PROJECT ARBORIST DETERMINES THAT TRENCHING WOULD SIGNIFICANTLY REDUCE THE CHANCES OF THE TREE'S SURVIVAL.
- TREES AND OTHER VEGETATION TO BE RETAINED SHALL BE PROTECTED FROM EROSION AND SEDIMENTATION. CLEARING OPERATIONS SHALL BE CONDUCTED SO AS TO EXPOSE THE SMALLEST PRACTICAL AREA OF SOIL FOR THE LEAST POSSIBLE AMOUNT OF TIME. SHRUBS, GROUND COVER, AND STUMPS SHALL BE MAINTAINED TO CONTROL EROSION, WHERE FEASIBLE. WHERE NOT FEASIBLE, APPROPRIATE EROSION CONTROL PRACTICES SHALL BE IMPLEMENTED.

ADDITIONAL REQUIREMENTS:

- THE PROJECT ARBORIST MAY REQUIRE ADDITIONAL TREE PROTECTION MEASURES WHICH ARE CONSISTENT WITH ACCEPTED URBAN FORESTRY PRACTICES.
- AT THE COMPLETION OF CONSTRUCTION, ALL TREES SHOULD ONCE AGAIN BE REVIEWED. LAND CLEARING AND REMOVAL OF ADJACENT TREES CAN EXPOSE PREVIOUSLY UNSEEN DEFECTS AND OTHERWISE HEALTHY TREES CAN BE DAMAGED DURING CONSTRUCTION. AT THE COMPLETION OF CONSTRUCTION, THE CONTRACTOR SHOULD COORDINATE WITH THE PROJECT ARBORIST FOR A FINAL INSPECTION.
- EXCAVATION WITHIN ASSUMED TREE ROOT ZONES:
 - EXCAVATION IN THE TOP 24 INCHES OF SOIL IN THE ASSUMED TREE ROOT ZONE SHOULD BEGIN AT THE EXCAVATION LINE THAT IS CLOSEST TO THE TREE.
 - THE EXCAVATION SHOULD BE DONE BY HAND/SHOVEL OR WITH AN EXCAVATOR AND A PERSON WITH A SHOVEL, PRUNING SHEARS, AND A PRUNING SAW.
 - IF DONE BY HAND, ALL ROOTS 1-INCH DIAMETER OR LARGER SHOULD BE PRUNED AT THE EXCAVATION LINE.
 - IF DONE WITH AN EXCAVATOR (MOST LIKELY SCENARIO), THEN THE OPERATOR SHALL START THE CUT AT THE EXCAVATION LINE AND CAREFULLY "FEEL" FOR ROOTS/RESISTANCE. WHEN THERE IS RESISTANCE, THE PERSON WITH THE SHOVEL HAND DIGS AROUND THE ROOTS AND PRUNES THE ROOTS 1-INCH DIAMETER OR LARGER.
 - THE EXCAVATOR IS TO REMAIN OFF OF THE TREE ROOTS TO BE PRESERVED AT ALL TIMES.
 - ALL ROOTS SHALL BE CUT CLEANLY WITH PRUNING SHEARS OR A PRUNING SAW.
 - THE PROJECT ARBORIST MUST BE ON SITE DURING ANY WORK WITHIN THE TREE PROTECTION AREA.

PRUNING/TREE REMOVAL NOTES:

- THE CONTRACTOR SHALL PROVIDE AN ADEQUATE CREW OF PERSONNEL, EQUIPMENT, AND MATERIALS TO SAFELY AND EFFICIENTLY COMPLETE THE ASSIGNED WORK. EACH SUCH CREW SHALL INCLUDE AN INDIVIDUAL WHO SHALL BE DESIGNATED AS THE CREW SUPERVISOR, BE RESPONSIBLE FOR THE CREWS ACTIVITIES, RECEIVE INSTRUCTION FROM THE OWNER OR THE OWNER'S REPRESENTATIVE, AND DIRECT THE CREW TO ACCOMPLISH SUCH WORK.
- THE CONTRACTOR SHOULD PRUNE ANY DEAD LIMBS FROM ALL TREES TO BE PRESERVED ON-SITE.
- WHENEVER A TREE, WHICH IS NOT SCHEDULED TO BE REMOVED, MUST BE TRIMMED OR PRUNED, THE CONTRACTOR SHALL ENSURE THAT SUCH TRIMMING AND PRUNING IS CARRIED OUT UNDER THE DIRECT SUPERVISION OF A CERTIFIED ARBORIST. ALL PRUNING AND TRIMMING SHALL BE PERFORMED IN ACCORDANCE WITH THE PROVISIONS OF ANSI A300 "STANDARD PRACTICES FOR TREE, SHRUB AND OTHER WOODY PLANT MAINTENANCE".
- UNLESS AS OTHERWISE DIRECTED BY THE OWNER, ROOT BALLS FROM TREES BEING REMOVED SHALL BE COMPLETELY REMOVED UNLESS THE ROOT REMOVAL CROSSES ONTO ADJACENT PROPERTIES OR WOULD COMPROMISE TREES BEING PRESERVED. IN THOSE CASES, THE STUMPS SHALL BE GROUND AS NECESSARY SO AS NOT TO CAUSE DAMAGE TO THE ROOT ZONES OF ADJACENT TREES TO BE PRESERVED ON THE SUBJECT PARCEL OR ABUTTING PARCELS. STUMPS NEAR PROPERTY LINES SHALL ALSO BE GROUND AS NECESSARY SO AS NOT TO CAUSE DISTURBANCE TO ADJACENT PARCELS.
- THE CONTRACTOR SHALL PERFORM ALL WORK IN ACCORDANCE WITH THE LATEST GOVERNMENTAL SAFETY REGULATIONS. ALL WORK SHALL BE PERFORMED IN STRICT ACCORDANCE WITH ANSI Z133.1 "PRUNING, TRIMMING, REPAIRING, MAINTAINING AND REMOVING TREES AND CUTTING BRUSH-SAFETY REQUIREMENTS" WITH SPECIAL EMPHASIS GIVEN TO THE REQUIREMENT THAT ONLY QUALIFIED LINE-CLEARANCE TREE TRIMMERS BE ASSIGNED TO WORK WHERE A POTENTIAL ELECTRICAL HAZARD EXISTS.
- THE CONTRACTOR SHALL MAKE ALL THE NECESSARY ARRANGEMENTS WITH ANY UTILITY THAT MUST BE PROTECTED OR RELOCATED IN ORDER TO ACCOMPLISH THE WORK. THE CONTRACTOR SHALL BE SOLELY RESPONSIBLE FOR THE PROTECTION OF THE OPERATING CONDITION OF ALL ACTIVE UTILITIES WITHIN THE AREA OF CONSTRUCTION AND SHALL TAKE ALL NECESSARY PRECAUTIONS TO AVOID DAMAGE TO EXISTING UTILITIES.
- ANY MATERIAL RESULTING FROM THE TRIMMING OR REMOVAL OF ANY TREES SHALL BECOME THE RESPONSIBILITY OF THE CONTRACTOR TO DISPOSE OF.
- HAZARDOUS TREE REPORTING: ANY PERSON ENGAGED IN TRIMMING OR PRUNING WHO BECOMES AWARE OF A TREE OF DOUBTFUL STRENGTH, THAT COULD BE DANGEROUS TO PERSONS AND PROPERTY, SHALL REPORT SUCH TREE(S) TO THE OWNER OR THE OWNER'S REPRESENTATIVE. SUCH TREES SHALL INCLUDE THOSE THAT ARE OVER MATURE, DISEASED, OR SHOWING SIGNS OF DECAY OR OTHER STRUCTURAL WEAKNESS.
- TREES DETERMINED TO BE A HAZARD SHALL BE REMOVED AS SOON AS POSSIBLE.
- DAMAGES: ANY DAMAGE CAUSED BY THE CONTRACTOR, INCLUDING, BUT NOT LIMITED TO, BROKEN SIDEWALK, CURB, RUTTED LAWN, BROKEN WATER SHUT-OFFS, WIRE DAMAGE, BUILDING DAMAGE, STREET DAMAGE, ETC., WILL BE REPAIRED OR REPLACED IN A TIMELY MANNER, TO THE OWNER'S SATISFACTION, AND ALL COSTS PAID BY THE CONTRACTOR.
- ANY BRUSH CLEARING REQUIRED WITHIN THE TREE PROTECTION AREA SHALL BE ACCOMPLISHED WITH HAND OPERATED EQUIPMENT.
- TREES TO BE REMOVED SHALL BE FELLED SO AS TO FALL AWAY FROM ASSUMED TREE ROOT ZONES AND TO AVOID PULLING AND BREAKING OF ROOTS TO REMAIN. DIRECTIONAL FELLING OF TREES SHALL BE USED TO AVOID DAMAGE TO TREES DESIGNATED FOR RETENTION.
- ALL DOWNED BRUSH AND TREES SHALL BE REMOVED FROM THE TREE PROTECTION AREA EITHER BY HAND OR WITH EQUIPMENT STAGED OUTSIDE OF THE TREE PROTECTION AREA. EXTRACTION SHALL OCCUR BY LIFTING THE MATERIAL OUT, NOT BY SKIDDING IT ACROSS THE GROUND.
- IF TEMPORARY HAUL OR ACCESS ROADS MUST PASS OVER TREE PROTECTION AREA, A ROADBED OF STEEL PLATES, OR 6 INCHES OF MULCH, OR 6 INCHES OF GRAVEL SHALL BE PLACED TO PREVENT SOIL COMPACTION IF DETERMINED NECESSARY BY THE PROJECT ARBORIST. THE ROADBED MATERIAL SHALL BE REPLENISHED AS NECESSARY TO MAINTAIN A 6-INCH DEPTH.
- PRUNING: THE CONTRACTOR SHALL CONSULT WITH THE PROJECT ARBORIST PRIOR TO ANY PRUNING ACTIVITIES NECESSARY FOR CONSTRUCTION ACTIVITIES. ALL PRUNING ACTIVITIES SHALL BE PERFORMED IN ACCORDANCE WITH ANSI A300 PRUNING STANDARDS. PRUNING SHALL BE COMPLETED PRIOR TO THE START OF CONSTRUCTION ACTIVITIES.
- CUT BRANCHES AND ROOTS WITH SHARP PRUNING INSTRUMENTS THAT DO NOT CHOP OR TEAR.
- FENCING SHALL BE INSTALLED PRIOR TO ANY CONSTRUCTION ACTIVITIES, INCLUDING, BUT NOT LIMITED TO CLEARING, GRADING, EXCAVATION, OR DEMOLITION WORK, AND SHALL BE REMOVED ONLY AFTER THE COMPLETION OF ALL CONSTRUCTION ACTIVITIES, INCLUDING LANDSCAPING AND IRRIGATION INSTALLATION.
- TREE PROTECTION FENCING SHALL BE FLUSH WITH THE INITIAL UNDISTURBED GRADE.

**PRELIMINARY DETAILED TREE INVENTORY & PROTECTION NOTES
PARKING EXPANSION
STAFFORD HILLS CLUB
TUALATIN, OR**

**PRELIMINARY
NOT FOR
CONSTRUCTION**

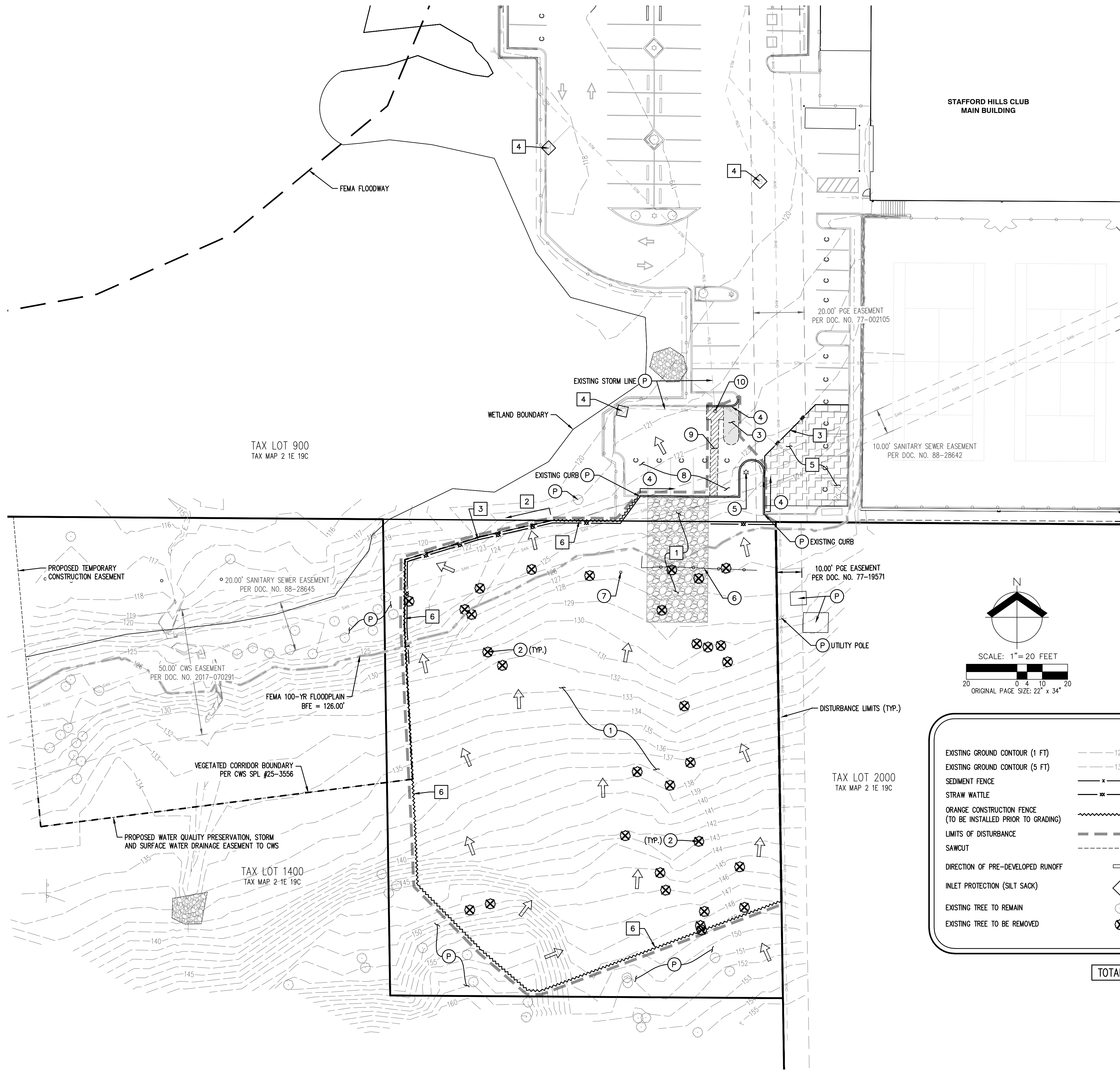


BENNETT R. KOCSIS
CERTIFICATE NUMBER: PN 8877A
EXPIRATION DATE: 12/31/2028

JOB NUMBER: 4490-02
DATE: 04/22/2026
DESIGNED BY: TMI
DRAWN BY: AMJ
CHECKED BY: CEG



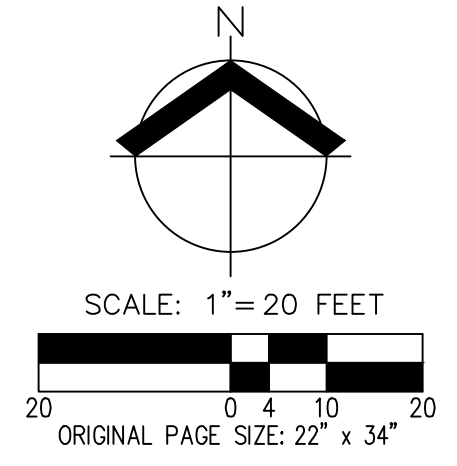
AKS
ENGINEERING & FORESTRY, LLC
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- # KEYED DEMOLITION NOTES**
- CLEAR EXISTING GROUND AND STRIP TO A DEPTH OF 12" OR AS INSTRUCTED BY GEOTECH. REMOVE ALL ORGANICS, TOPSOIL, ROOTS AND EXCESS MATERIAL AS REQUIRED FOR THE PROPOSED IMPROVEMENTS.
 - REMOVE EXISTING TREE
 - SAWCUT AND REMOVE EXISTING ASPHALT PAVEMENT
 - SAWCUT AND REMOVE EXISTING CURB
 - PROTECT EXISTING POLE AND LIGHT FIXTURE AND SALVAGE FOR FUTURE REINSTALLATION
 - REMOVE EXISTING FENCE
 - REMOVE EXISTING T-POST
 - REMOVE EXISTING PARKING STRIPES AND MARKINGS
 - ASPHALT UTILITY TRENCHING
 - REMOVE EXISTING STORM CLEANOUT. CUT AND CAP EXISTING STORM LINES FOR FUTURE RECONNECTION.
- (P) PROTECT AT ALL TIMES DURING CONSTRUCTION**

- # KEYED EROSION AND SEDIMENT CONTROL NOTES**
- INSTALL GRAVEL CONSTRUCTION ENTRANCE
 - INSTALL SEDIMENT FENCE
 - INSTALL STRAW WATTLE
 - INSTALL SILT SACK INLET PROTECTION
 - STOCKPILE AND STAGING AREA
 - INSTALL TREE PROTECTION/ CONSTRUCTION FENCING

- GENERAL NOTES**
- ALL EROSION AND SEDIMENT CONTROL BMP'S SHALL BE IN PLACE PRIOR TO DEMOLITION AND GROUND DISTURBING ACTIVITIES.
 - EXISTING UTILITIES TO REMAIN SHALL BE PROTECTED AT ALL TIMES DURING CONSTRUCTION. ANY DAMAGE SHALL BE REPAIRED AT CONTRACTOR'S EXPENSE.



LEGEND

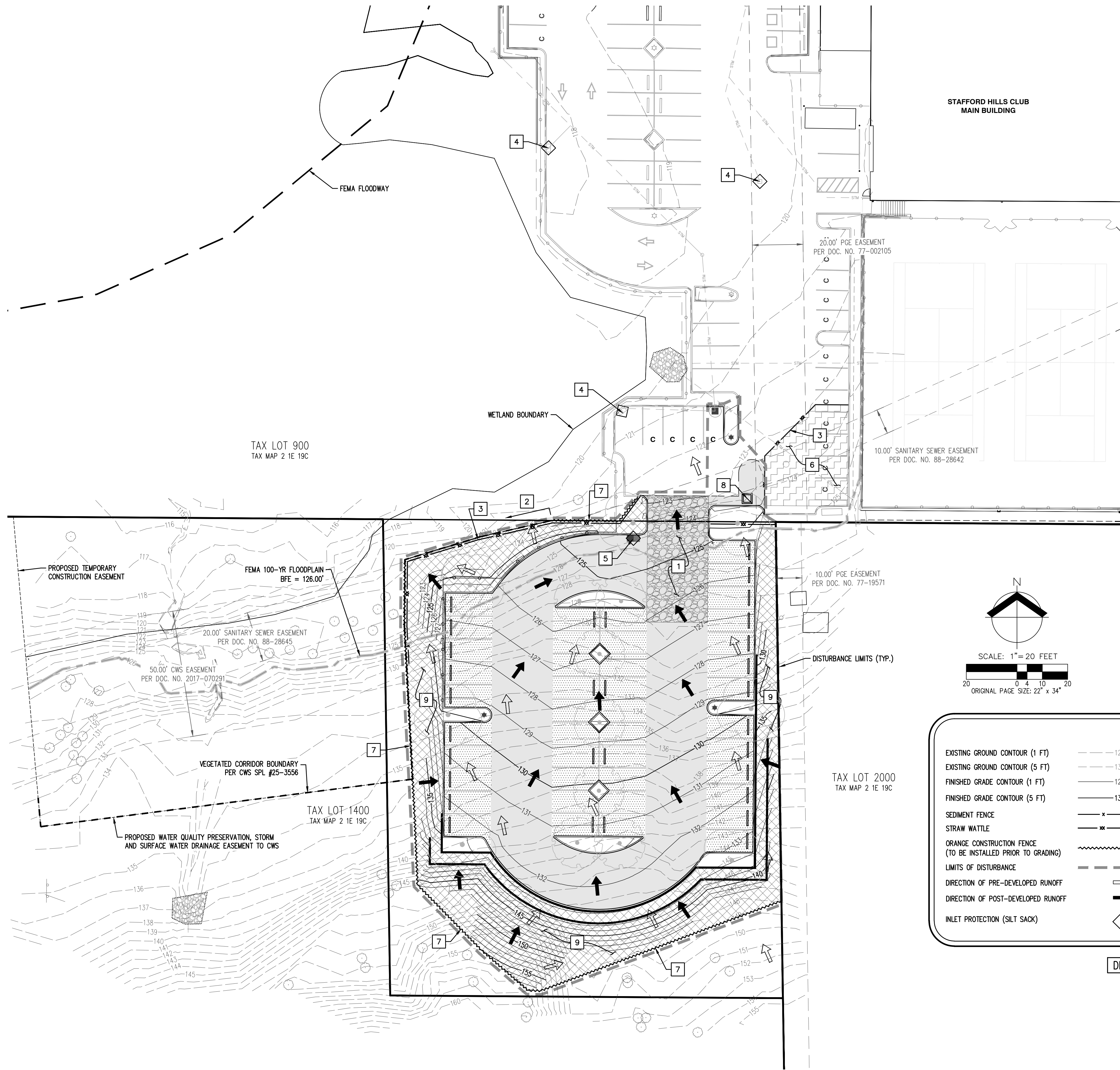
EXISTING GROUND CONTOUR (1 FT)	- - - - - 129 - - - - -	EXISTING PAVEMENT TO BE REMOVED	[Dashed Box]
EXISTING GROUND CONTOUR (5 FT)	- - - - - 130 - - - - -	ASPHALT UTILITY TRENCHING	[Hatched Box]
SEDIMENT FENCE	- x - x -	STOCKPILE AND STAGING AREA	[Stippled Box]
STRAW WATTLE	- x x - x -	GRAVEL CONSTRUCTION ENTRANCE	[Gravel Pattern Box]
ORANGE CONSTRUCTION FENCE (TO BE INSTALLED PRIOR TO GRADING)	- - - - -		
LIMITS OF DISTURBANCE	- - - - -		
SAWCUT	- - - - -		
DIRECTION OF PRE-DEVELOPED RUNOFF	→		
INLET PROTECTION (SILT SACK)	◇		
EXISTING TREE TO REMAIN	○		
EXISTING TREE TO BE REMOVED	⊗		

TOTAL DISTURBANCE AREA = ±0.6 AC

**PRELIMINARY DEMOLITION AND ESC PLAN
 PARKING EXPANSION
 STAFFORD HILLS CLUB
 TUALATIN, OR**

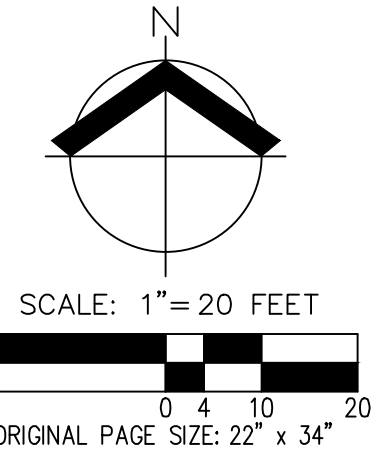
**PRELIMINARY
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 CONSTRUCTION**

JOB NUMBER: 4490-02
 DATE: 04/22/2026
 DESIGNED BY: TMI
 DRAWN BY: AMJ
 CHECKED BY: CEG



KEYED EROSION AND SEDIMENT CONTROL NOTES

1. MAINTAIN GRAVEL CONSTRUCTION ENTRANCE
2. MAINTAIN SEDIMENT FENCE
3. MAINTAIN STRAW WATTLE
4. MAINTAIN SILT SACK INLET PROTECTION
5. INSTALL AND MAINTAIN SILT SACK INLET PROTECTION
6. MAINTAIN STOCKPILE AND STAGING AREA
7. MAINTAIN TREE PROTECTION/ CONSTRUCTION FENCING
8. INSTALL CONCRETE WASHOUT
9. CAT TRACK AND INSTALL SLOPE MATTING AND PERMANENT SEEDING



LEGEND

EXISTING GROUND CONTOUR (1 FT)	---	129	GRAVEL CONSTRUCTION ENTRANCE	
EXISTING GROUND CONTOUR (5 FT)	---	130		
FINISHED GRADE CONTOUR (1 FT)	---	129	STOCKPILE AND STAGING AREA	
FINISHED GRADE CONTOUR (5 FT)	---	130		
SEDIMENT FENCE	-x-x-			
STRAW WATTLE	-xx-xx-			
ORANGE CONSTRUCTION FENCE (TO BE INSTALLED PRIOR TO GRADING)	~~~~~		NEW IMPERVIOUS SURFACE	
LIMITS OF DISTURBANCE	- - - - -			
DIRECTION OF PRE-DEVELOPED RUNOFF	→		HYDROMULCH OR SLOPE MATTING AND PERMANENT SEEDING	
DIRECTION OF POST-DEVELOPED RUNOFF	→			
INLET PROTECTION (SILT SACK)	◇		CONCRETE WASHOUT	

DISTURBANCE AREA = ±0.6 AC

**PRELIMINARY GRADING AND ESC PLAN
 PARKING EXPANSION
 STAFFORD HILLS CLUB
 TUALATIN, OR**

**PRELIMINARY
 NOT FOR
 CONSTRUCTION**

JOB NUMBER:	4490-02
DATE:	04/22/2026
DESIGNED BY:	TMI
DRAWN BY:	AMJ
CHECKED BY:	CEG

GRADING ESC LEGEND

EXISTING GROUND CONTOUR (1 FT)	---129---	GRAVEL CONSTRUCTION ENTRANCE	
EXISTING GROUND CONTOUR (5 FT)	---130---	STOCKPILE AND STAGING AREA	
FINISHED GRADE CONTOUR (1 FT)	---129---	NEW IMPERVIOUS SURFACE	
FINISHED GRADE CONTOUR (5 FT)	---130---	HYDROMULCH OR SLOPE MATTING AND PERMANENT SEEDING	
SEDIMENT FENCE	x x x x	CONCRETE WASHOUT	
STRAW WATTLE	---x---x---		
ORANGE CONSTRUCTION FENCE (TO BE INSTALLED WITH GRADING)	~~~~~		
LIMITS OF DISTURBANCE	-----		
PROPOSED EASEMENT	-----		
DIRECTION OF PRE-DEVELOPED RUNOFF	➔		
DIRECTION OF POST-DEVELOPED RUNOFF	➔		
INLET PROTECTION (SILT SACK)	◇		

TOTAL DISTURBANCE AREA = ±0.6 AC

MITIGATION LEGEND

OFF-SITE VC ENHANCEMENT AREA FOR PUBLIC BENEFIT - 7,393 SF±		ON-SITE VC ENHANCEMENT AREA - 1,042 SF±	
REPLACEMENT VC MITIGATION AREA - 3,145 SF±			

KEYED MITIGATION NOTES

1. GRADING IMPACT AREA
2. VEGETATED CORRIDOR ENHANCEMENT PLANTINGS
3. VEGETATED CORRIDOR REPLACEMENT PLANTINGS

GENERAL NOTES

1. SEE SHEET P05 FOR EROSION AND SEDIMENT CONTROL BMP INSTALLATION DETAILS
2. MAINTAIN 2' MINIMUM COVER ABOVE EXISTING SANITARY MAIN PER 1988 NYBERG INTERCEPTOR EXTENSION AS-BUILT SECTION DESIGN. CONTRACTOR TO POTHOLE AND VERIFY ADEQUATE COVER EXISTS PRIOR TO GRADING.

SITE EARTHWORK SUMMARY

SITE EARTHWORK SUMMARY QUANTIFIES TOTAL CUT/FILL VOLUMES REQUIRED FOR THE PROPOSED PARKING LOT DEVELOPMENT.

HAUL OFF (12" STRIP) = ±817 CY

CUT = ±3,219 CY
 FILL = ±151 CY
 NET = ±3,068 CY (CUT)***

***EARTHWORK VOLUMES DO NOT ACCOUNT FOR UNDERGROUND DETENTION SYSTEMS, PAVEMENT SECTIONS, OR RETAINING WALL EMBEDMENT DEPTHS.

FLOODPLAIN EARTHWORK SUMMARY

FLOODPLAIN EARTHWORK SUMMARY QUANTIFIES CUT/FILL VOLUMES AT OR BELOW THE BFE OF 126.00'

CUT = ±67 CY
 FILL = ±43 CY
 NET = ±24 CY (CUT)

VEGETATED CORRIDOR MITIGATION SUMMARY

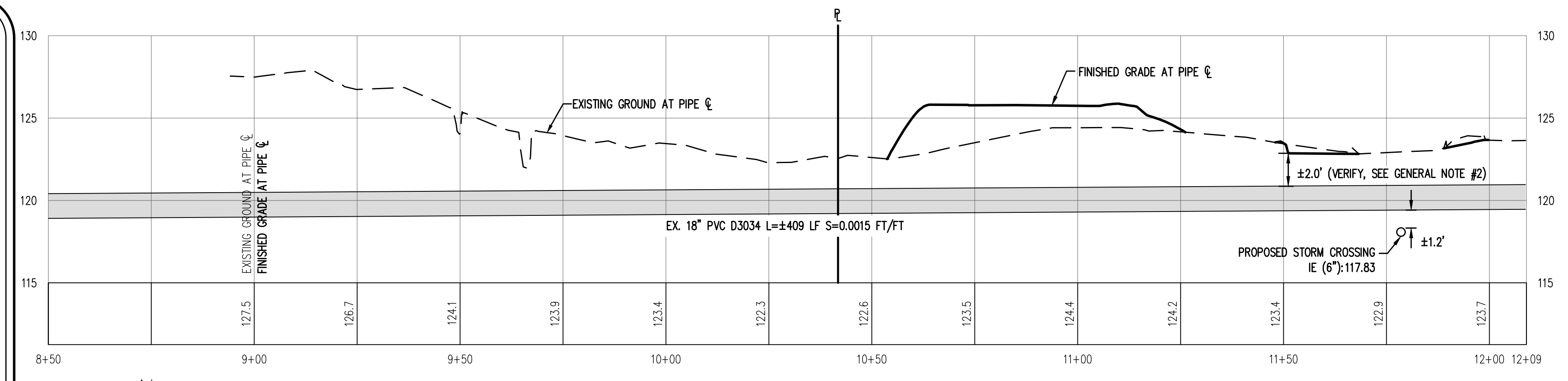
VEGETATED CORRIDOR (VC) MITIGATION SUMMARY QUANTIFIES REPLACEMENT AND ENHANCEMENT MITIGATION AREAS FOR IMPACTS WITHIN 50' OF THE DELINEATED WETLAND BOUNDARY.

VC REPLACEMENT AREA = ±3,145 SF
 ON-SITE VC ENHANCEMENT AREA = ±1,042 SF
 OFF-SITE VC ENHANCEMENT AREA = ±7,393 SF
 TOTAL VEGETATED CORRIDOR PLANTING AREA = ±11,580 SF (0.27 AC)

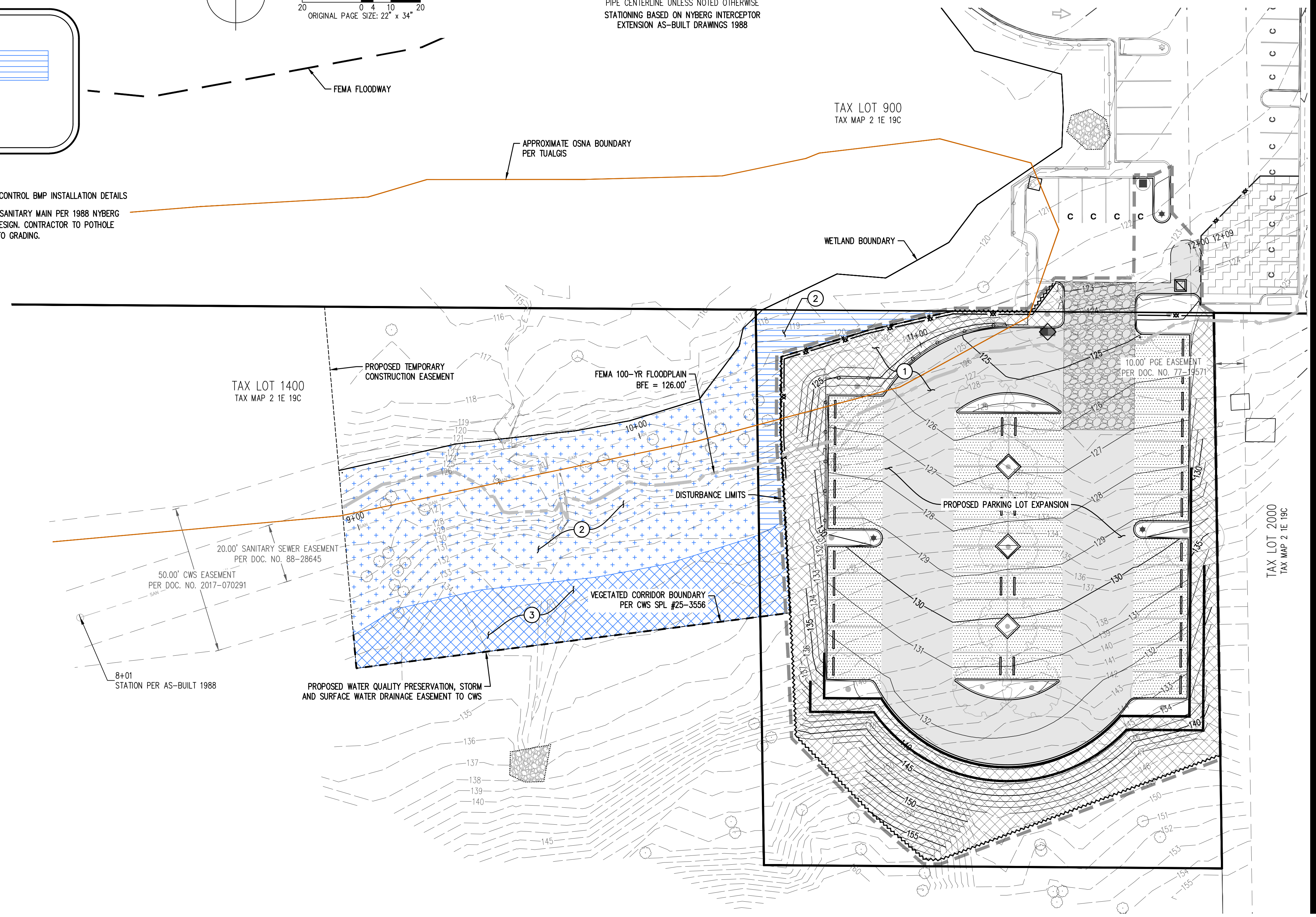
SITE AREA SUMMARY

SITE AREA SUMMARY QUANTIFIES DEVELOPMENT AREAS WITHIN THE PROPERTY BOUNDARY.

PARKING LOT = ±16,589 SF
 LANDSCAPING = ±13,728 SF
 TOTAL DEVELOPMENT AREA = ±30,317 SF (0.7 AC)



EX SANITARY MAIN PROFILE
 HORIZ: 1"=20'
 VERT: 1"=5'
 ALL PROFILE ELEVATIONS BASED ON PIPE CENTERLINE UNLESS NOTED OTHERWISE
 STATIONING BASED ON NYBERG INTERCEPTOR EXTENSION AS-BUILT DRAWINGS 1988



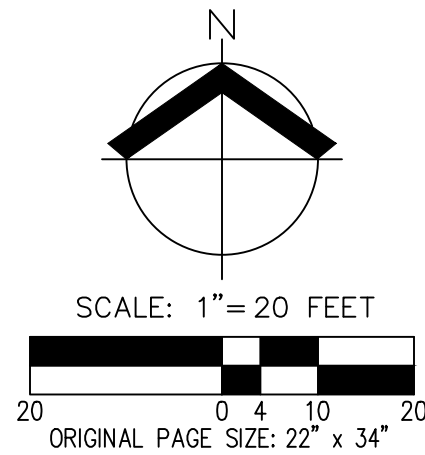
**PRELIMINARY GRADING, MITIGATION, AND ESC PLAN
 PARKING EXPANSION
 STAFFORD HILLS CLUB
 TUALATIN, OR**

**PRELIMINARY
 NOT FOR
 CONSTRUCTION**

JOB NUMBER:	4490-02
DATE:	04/22/2026
DESIGNED BY:	TMI
DRAWN BY:	AMJ
CHECKED BY:	CEG

LEGEND	
EXISTING GROUND CONTOUR (1 FT)	---129---
EXISTING GROUND CONTOUR (5 FT)	---130---
FINISHED GRADE CONTOUR (1 FT)	---129---
FINISHED GRADE CONTOUR (5 FT)	---130---

DISTURBANCE AREA = ±0.6 AC



ABBREVIATIONS

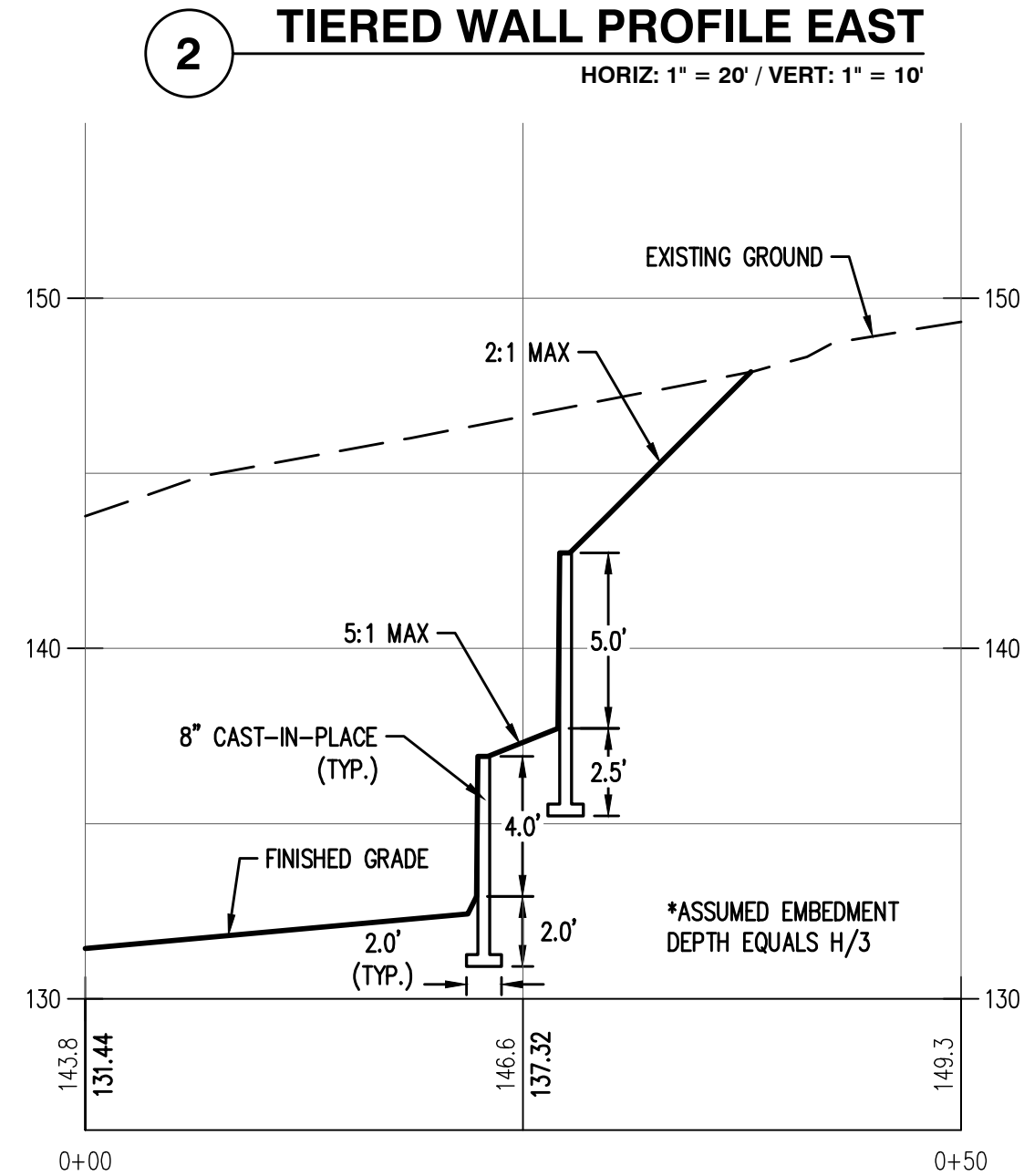
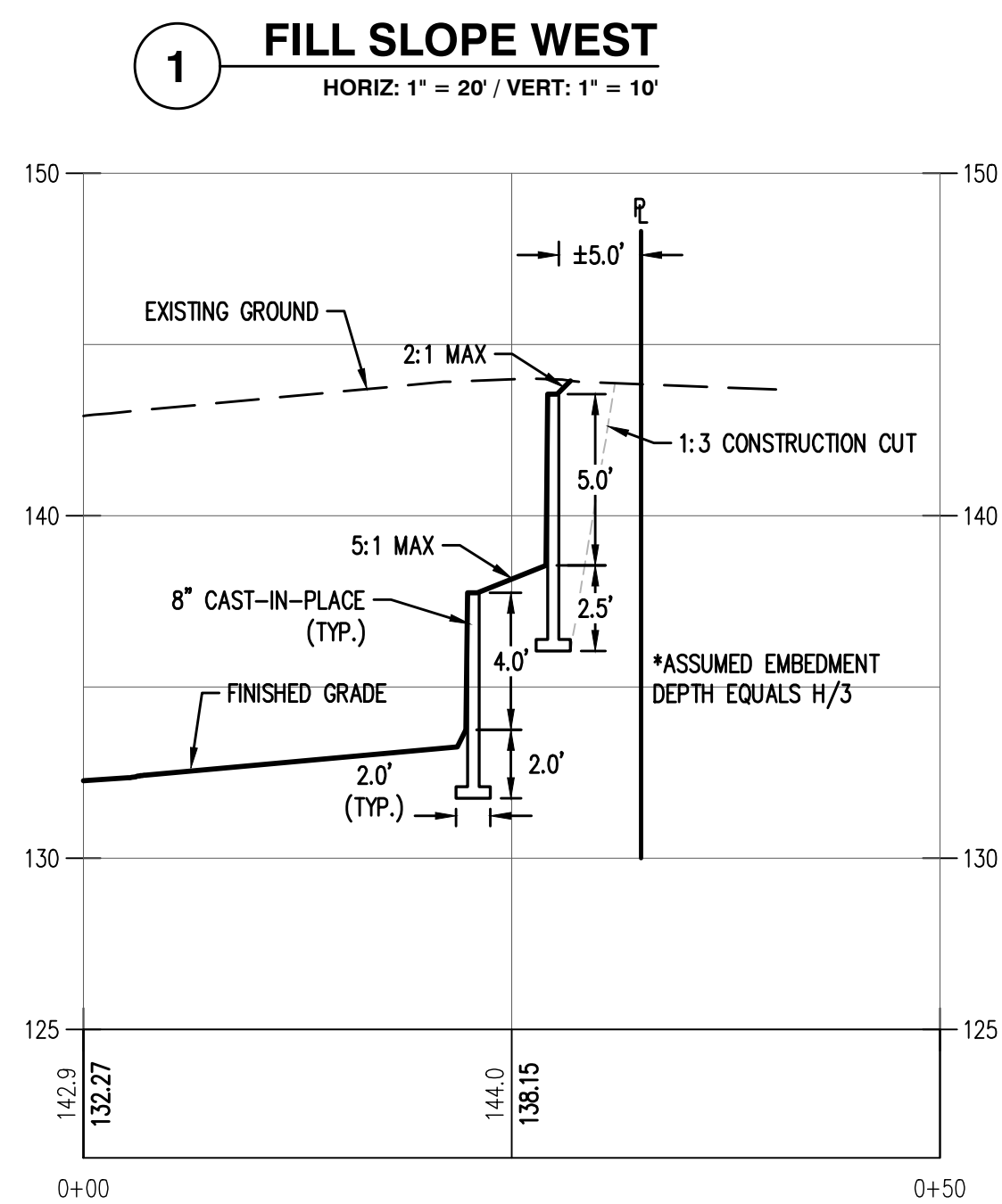
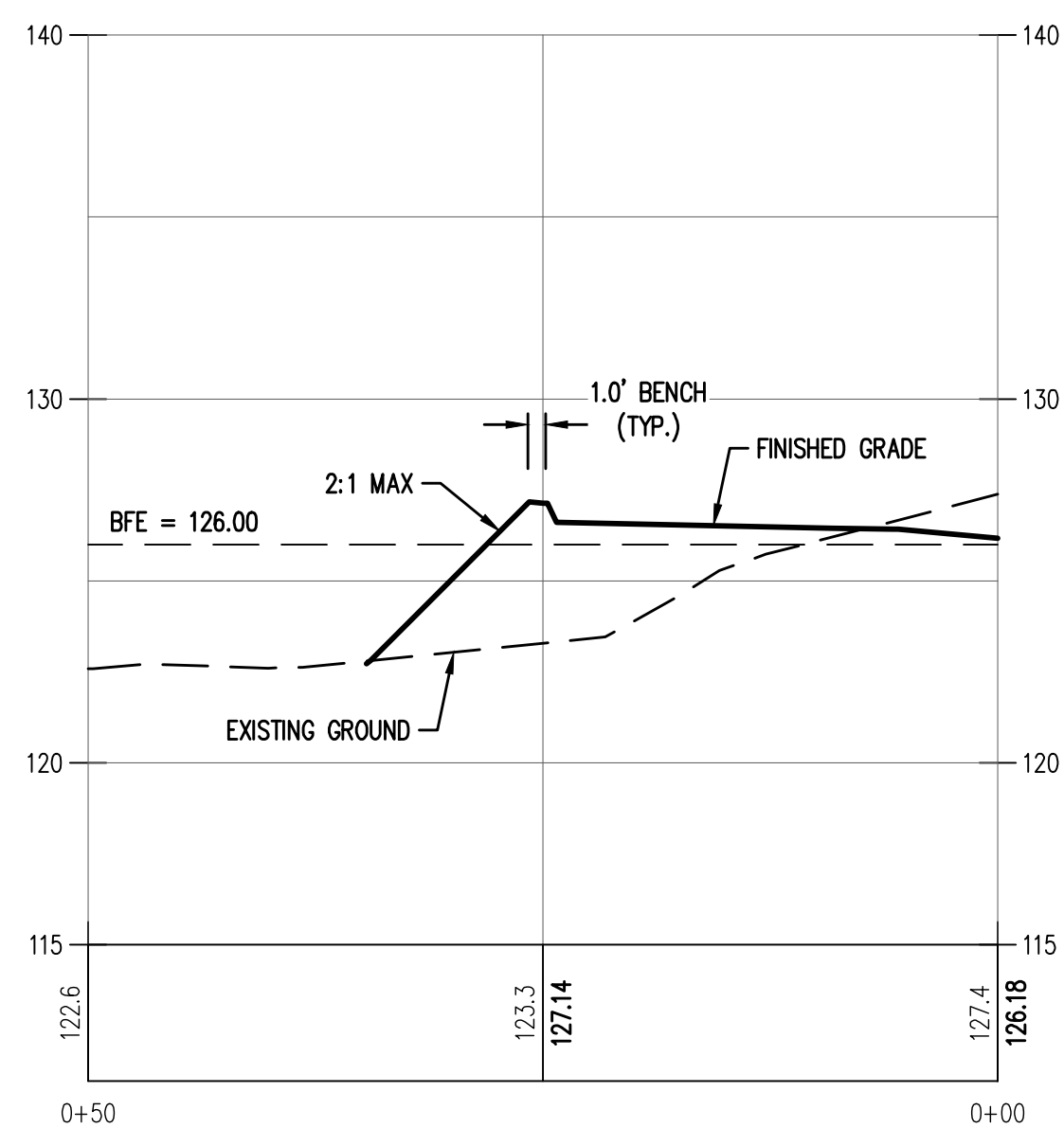
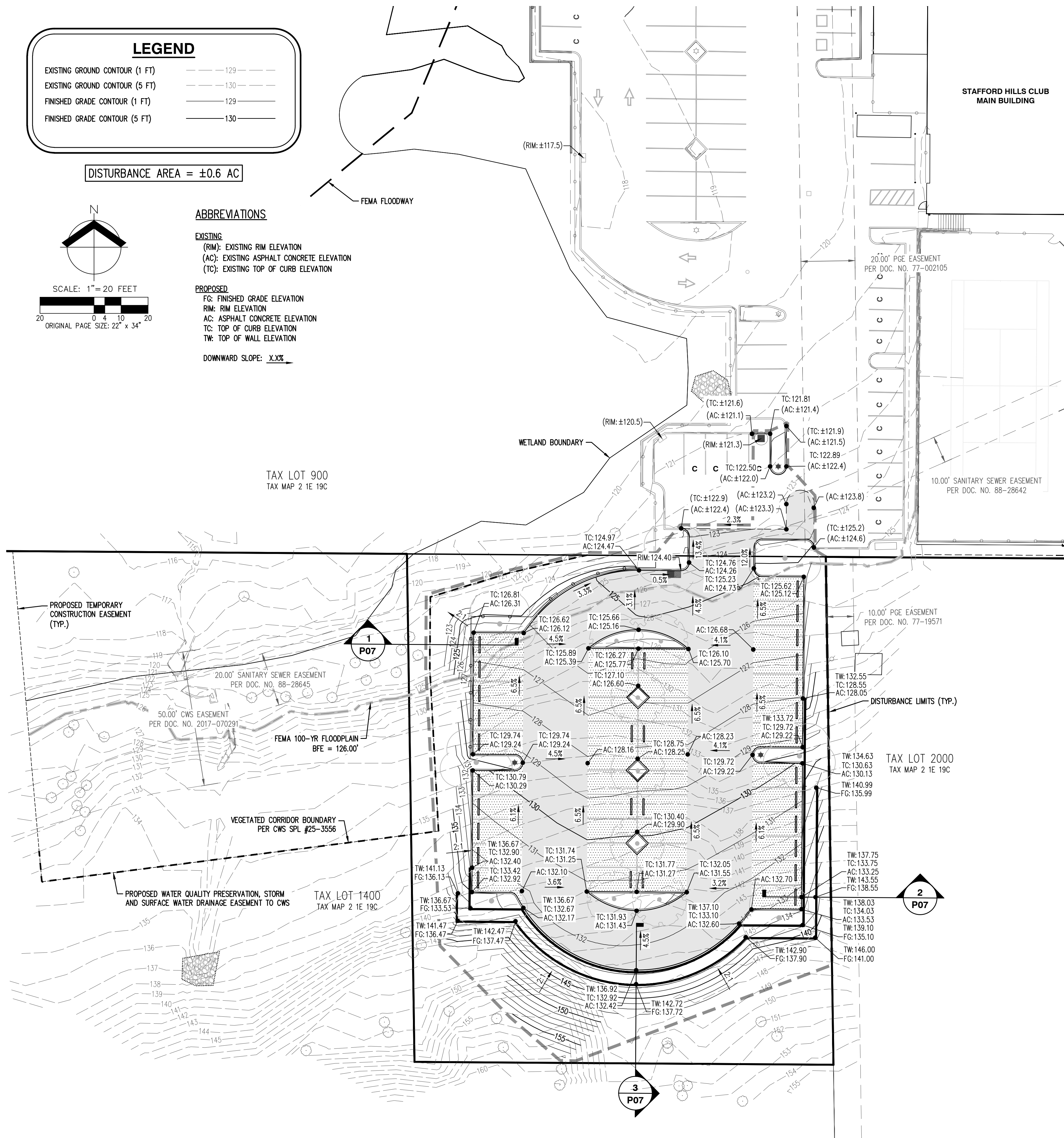
EXISTING

- (RIM): EXISTING RIM ELEVATION
- (AC): EXISTING ASPHALT CONCRETE ELEVATION
- (TC): EXISTING TOP OF CURB ELEVATION

PROPOSED

- FG: FINISHED GRADE ELEVATION
- RIM: RIM ELEVATION
- AC: ASPHALT CONCRETE ELEVATION
- TC: TOP OF CURB ELEVATION
- TW: TOP OF WALL ELEVATION

DOWNWARD SLOPE: X.X%



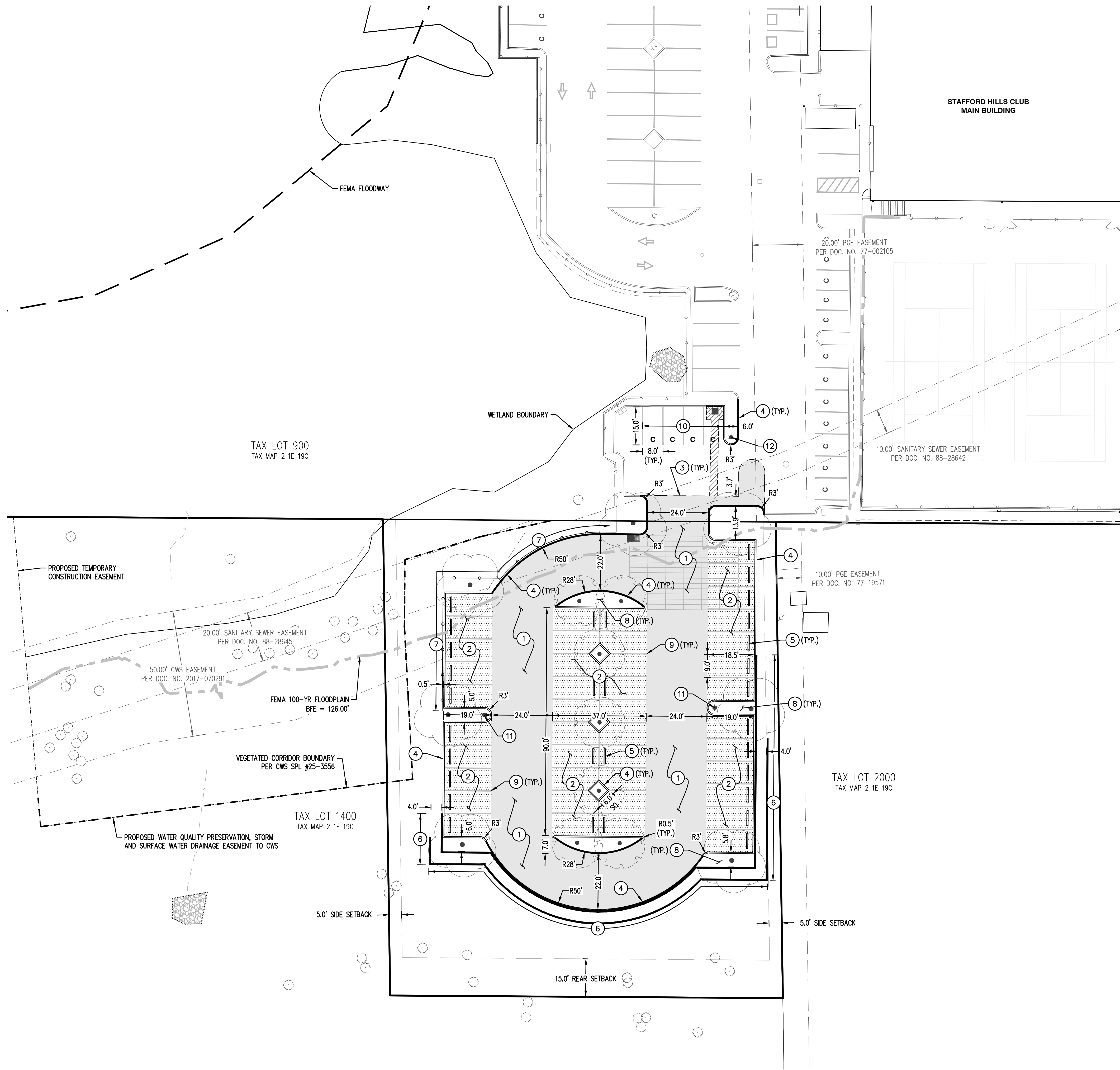
**PRELIMINARY SPOT ELEVATION GRADING PLAN
 PARKING EXPANSION
 STAFFORD HILLS CLUB
 TUALATIN, OR**

**PRELIMINARY
 NOT FOR
 CONSTRUCTION**

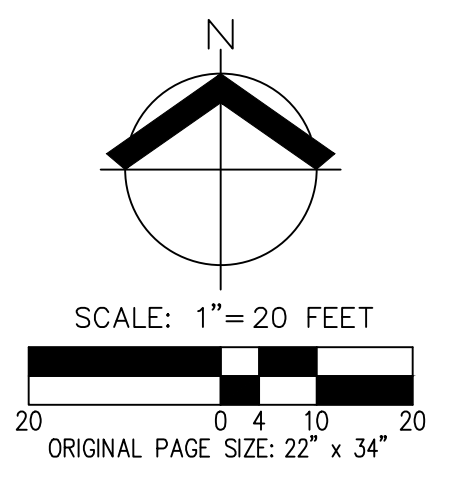
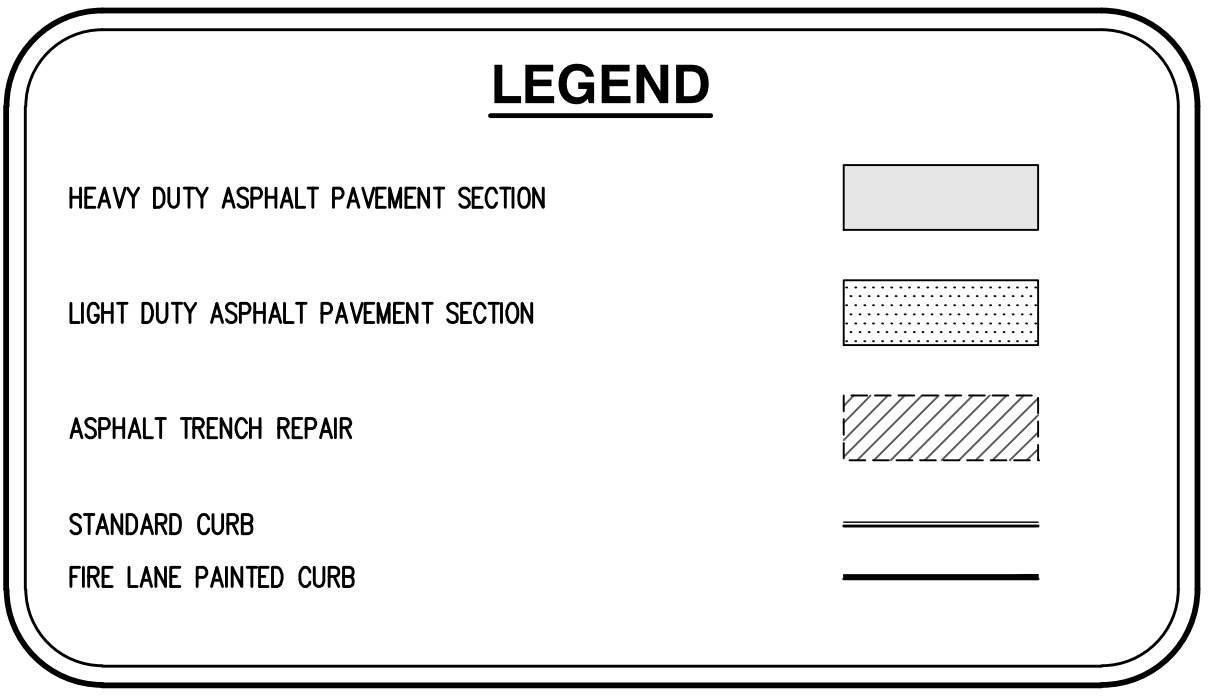
JOB NUMBER:	4490-02
DATE:	04/22/2026
DESIGNED BY:	TMI
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P07

AKS DRAWING FILE: 4490-02_P07_GRADING_LAYOUT.P07



- # KEYED SITE NOTES**
1. INSTALL HEAVY DUTY ASPHALT PAVEMENT.
 2. INSTALL LIGHT DUTY ASPHALT PAVEMENT.
 3. SAND SEAL EXISTING EDGE OF PAVEMENT AT SAWCUT JOINT.
 4. INSTALL TYPE-C CURB, PAINT RED WHERE SHOWN.
 5. INSTALL CONCRETE WHEEL STOP.
 6. INSTALL TIERED RETAINING WALL SYSTEM. WALL HEIGHT VARIES, SEE GRADING PLAN.
 7. INSTALL CHAINLINK FENCE AND CONNECT TO EXISTING.
 8. INSTALL LANDSCAPE ISLAND. SEE LANDSCAPE PLANS FOR DETAILS.
 9. PAINT STANDARD (9' X 18.5') PARKING STALLS WITH 4" WIDE WHITE STRIPING.
 10. PAINT COMPACT (8' X 15') PARKING STALLS WITH 4" WIDE WHITE STRIPING AND "C" PAVEMENT MARKING.
 11. INSTALL NEW LIGHT POLE AND FIXTURE.
 12. REINSTALL SALVAGED LIGHT POLE AND FIXTURE.



**PRELIMINARY DIMENSIONED SITE PLAN
 PARKING EXPANSION
 STAFFORD HILLS CLUB
 TUALATIN, OR**

**PRELIMINARY
 NOT FOR
 CONSTRUCTION**

JOB NUMBER:	4490-02
DATE:	04/22/2026
DESIGNED BY:	TMI
DRAWN BY:	AMJ
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**PRELIMINARY STORMWATER MANAGEMENT PLAN
 PARKING EXPANSION
 STAFFORD HILLS CLUB
 TUALATIN, OR**

**PRELIMINARY
 NOT FOR
 CONSTRUCTION**

JOB NUMBER: 4490-02
 DATE: 04/22/2026
 DESIGNED BY: TMI
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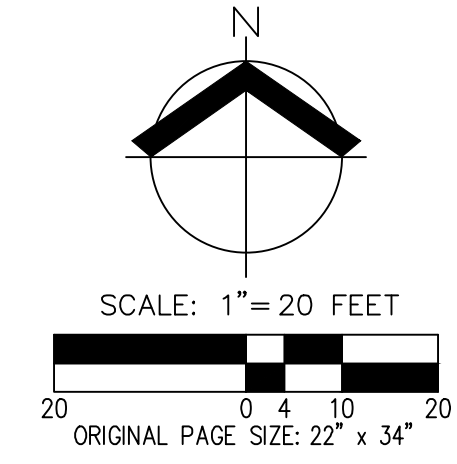
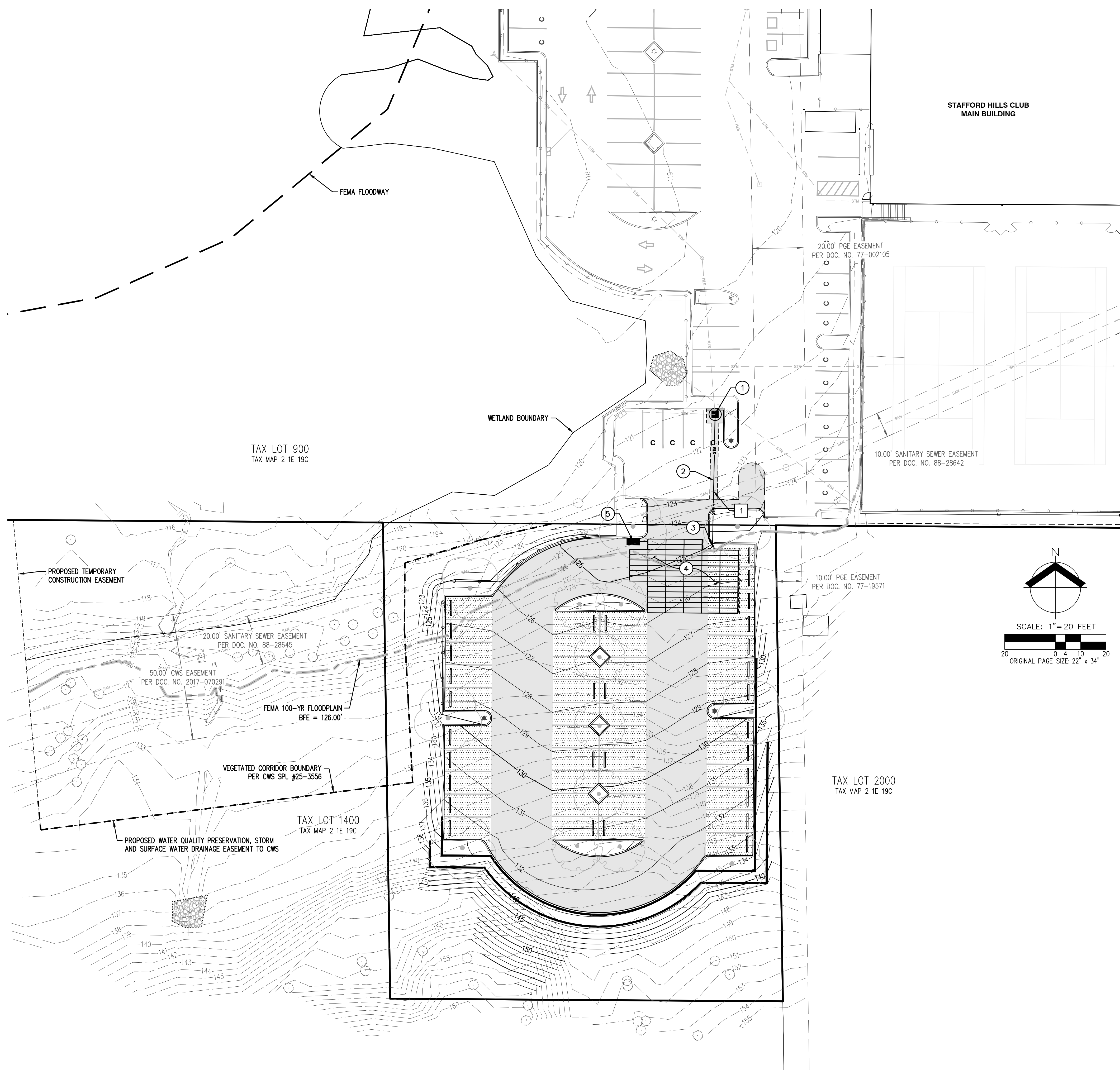
LEGEND	
EXISTING GROUND CONTOUR (1 FT)	--- 129 ---
EXISTING GROUND CONTOUR (5 FT)	--- 130 ---
FINISHED GRADE CONTOUR (1 FT)	--- 129 ---
FINISHED GRADE CONTOUR (5 FT)	--- 130 ---

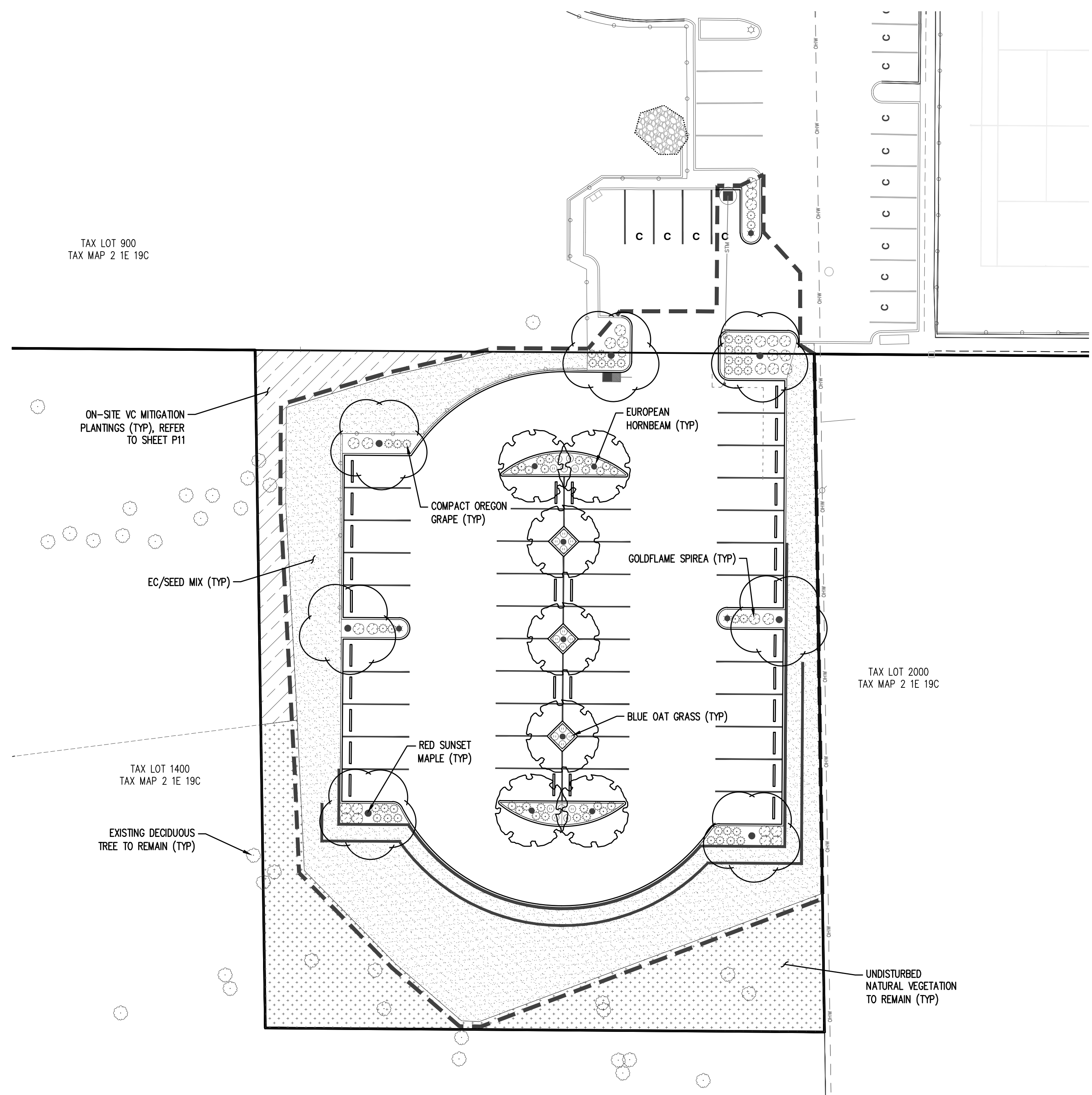
KEYED STORMWATER NOTES

- INSTALL FLOW CONTROL MANHOLE OVER EXISTING PIPES. ROTATE AS NECESSARY TO SET ACCESS LID AND STEPS WITHIN PAVED AREA.
 RIM: ±121.25 (SET TO EG)
 EX. IE IN (6"W): ±117.6 IE IN (6"S): 117.60
 EX. IE OUT (6"N): ±117.6
- DETENTION SYSTEM OUTLET. INSTALL 4" PVC AND CONNECT TO PERFORATED UNDERDRAIN.
 L = ±52.1 LF S = 0.008 FT/FT (MIN.)
- INSTALL 4" CLEANOUT WITH DOUBLE WYE AND CONNECT TO CHAMBER UNDERDRAIN
 RIM: 125.05
 IE (4"): 118.00
- INSTALL STORMTECH SC-160LP CHAMBER DETENTION SYSTEM (72 CHAMBERS). UTILIZE PERPENDICULAR 4" PERFORATED HDPE UNDERDRAIN TO OUTLET.
 IE CHAMBER: 118.50
 IE ROCK/ UNDERDRAIN (4"): 118.00
 IE END CAP STUB (6"): 118.56
- INSTALL WATER QUALITY CATCH BASIN AND CONNECT TO CHAMBER END CAP WITH 6" PVC
 RIM: 124.40 (SET TO FG)
 IE OUT (6"N): 122.10
 L = ±4.4 LF S = 0.952 FT/FT

KEYED UTILITY CROSSINGS

- POTHOLE AND VERIFY EXISTING PIPE MATERIAL, SIZE, INVERT ELEVATION, AND HORIZONTAL LOCATION PRIOR TO ORDERING MATERIALS AND COMMENCING WORK. NOTIFY ENGINEER OF DISCREPANCIES.
- STORM X SANITARY
 EX. SAN IE (18" PVC): 119.42
 STM IE (6" PVC): 117.83
 CLEARANCE = ±1.2 FT





PRELIMINARY PLANT SCHEDULE

SYMBOL	QTY	BOTANICAL NAME	COMMON NAME	SIZE/CONTAINER	SPACING	CANOPY COVERAGE AT 15 YRS.
TREES						
	7	ACER RUBRUM 'FRANKSRED'	RED SUNSET MAPLE	2" CAL MIN./B&B	AS SHOWN	25'
	7	CARPINUS BETULUS	EUROPEAN HORNBEAM	2" CAL MIN./B&B	AS SHOWN	20'
SHRUBS						
	65	MAHONIA AQUIFOLIUM 'COMPACTA'	COMPACT OREGON GRAPE	2 GAL CONT.	30" o.c.	
	28	SPIRAEA X BUMALDA 'GOLDFLAME'	GOLDFLAME SPIREA	2 GAL CONT.	36" o.c.	
GRASSES						
	22	HELICOTRICHON SEMPERVIRENS	BLUE OAT GRASS	1 GAL. CONT.	24" o.c.	
GROUND COVERS						
	7,172 SF ±	E/C SEED MIX: SUNMARK SEEDS STANDARD E/C MIX				
	3,893 SF ±	UNDISTURBED NATURAL VEGETATION TO REMAIN				

PRELIMINARY LANDSCAPE NOTES

- CONTRACTOR IS RESPONSIBLE FOR VERIFYING PLANT & MATERIAL QUANTITIES. IF DISCREPANCIES OCCUR, DESIGN INTENT PREVAILS OVER QUANTITIES LISTED. FIELD ADJUST PLANTINGS AS REQUIRED TO AVOID CONFLICTS WITH ABOVE AND BELOW GROUND UTILITIES, EXISTING VEGETATION AND TREE CANOPIES, ETC.
- ALL PLANTINGS SHALL CONFORM TO TUALATIN DESIGN STANDARDS AND TO THE AMERICAN STANDARD FOR NURSERY STOCK ANSI Z60.2. ALL TREES ON SITE SHALL MEET THE AMERICAN ASSOCIATION OF NURSERYMEN (AAN) STANDARDS FOR NURSERY STOCK (ANSI Z60.1) GRADE NO. 1 OR BETTER, BEING HEALTHY NURSERY GROWN STOCK WITH WELL-FORMED, SYMMETRICAL BRANCHING STRUCTURE. ALL TREES SHALL HAVE A SINGLE STRAIGHT TRUNK, A WELL-DEVELOPED LEADER WITH TOPS AND ROOTS CHARACTERISTIC OF THE SPECIES, CULTIVAR, OR VARIETY, AND BE FREE OF INSECTS, DISEASES, MECHANICAL INJURY, AND OTHER OBJECTIONABLE FEATURES WHEN PLANTED. PLANT IN ACCORDANCE WITH BEST-PRACTICE INDUSTRY STANDARDS ADOPTED BY THE OREGON LANDSCAPE CONTRACTORS BOARD (OLCB).
- PLANT SPECIES, SIZES, LOCATIONS, QUANTITIES, ETC. MAY BE SUBSTITUTED OR REVISED BY THE LANDSCAPE ARCHITECT PRIOR TO FINAL INSTALLATION DUE TO SITE CONDITIONS, AVAILABILITY, ETC. WHERE ALLOWED BY TUALATIN DESIGN STANDARDS.
- CONTRACTOR SHALL BE RESPONSIBLE FOR PROTECTING EXISTING VEGETATION (INCLUDING DAMAGE TO TREE ROOT ZONES OR CANOPY) DURING THE COURSE OF THEIR WORK.
- SOIL PREPARATION: ALL PLANTING AREAS SHALL HAVE SUFFICIENT SOIL DEPTH AND FERTILITY TO SUPPORT HEALTHY PLANT GROWTH. FINISH GRADE OF NEW PLANTING AREAS SHALL SEAMLESSLY MEET EXISTING GRADE OF SURROUNDING PLANTING AREAS AND PROVIDE POSITIVE DRAINAGE. IF ADDITIONAL TOPSOIL IS REQUIRED TO MAKE UP REQUIRED AMOUNTS, IMPORTED TOPSOIL MAY BE USED. ANY IMPORTED TOPSOIL SHALL BE FREE OF ROOTS, WEEDS/WEED SEEDS, CLAY LUMPS, DEBRIS, ROCKS, LARGE WOODY MATERIAL, AND OTHER EXTRANEOUS, NON-ORGANIC MATERIAL HARMFUL TO PLANT GROWTH. SOIL PLACEMENT SHALL NOT OCCUR IN CONDITIONS THAT COULD RESULT IN OVER-COMPACTION OR EROSION AND MUST BE IN FRIABLE (WORKABLE) CONDITION WHEN PLACED.
- MULCH: APPLY 3" DEEP WELL-AGED DARK HEMLOCK OR FIR, MEDIUM GRIND, UNDER AND AROUND ALL PLANTS IN PLANTING BEDS. DO NOT COVER FOLIAGE OR ROOT CROWNS OF PLANT MATERIAL WITH MULCH.
- IRRIGATION: ALL LANDSCAPE SHALL BE AUTOMATICALLY IRRIGATED BY AN UNDERGROUND IRRIGATION SYSTEM TO ENSURE PLANT SURVIVAL DURING PLANT ESTABLISHMENT. IRRIGATION SHALL BE DESIGN-BUILD BY LANDSCAPE CONTRACTOR AND INCLUDE ALL WORK NECESSARY FOR THE COMPLETE INSTALLATION OF THE IRRIGATION SYSTEM PER CITY OF TUALATIN STANDARDS. CONTRACTOR IS REQUIRED TO OBTAIN CITY APPROVAL OF THE IRRIGATION SYSTEM PRIOR TO CONSTRUCTION. PROVIDE FULL AND COMPLETE COVERAGE FOR ALL LANDSCAPE AREAS SHOWN WITH CONSIDERATION FOR PLANT PLACEMENT AND GROWTH HABITS. COORDINATE POINT OF CONNECTION AND SLEEVING WITH GENERAL CONTRACTOR AND OWNER. DESIGN AND FINAL ADJUSTMENTS SHALL MINIMIZE OVERSPRAY TO IMPROVEMENTS OUTSIDE OF THE LANDSCAPE AREA.

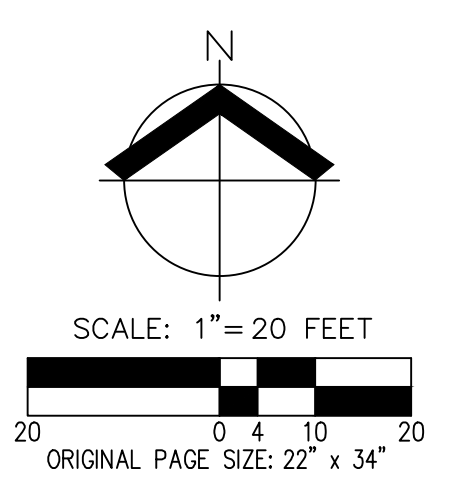
SITE STATISTICS

TOTAL DEVELOPMENT AREA:	±30,317 SF (0.70 AC)
TOTAL LANDSCAPE AREA REQUIRED:	±7,579 SF (25%)
TOTAL UNDISTURBED NATURAL VEGETATION TO REMAIN:	±3,893 SF
TOTAL PROPOSED LANDSCAPE AREA:	±9,835 SF
TOTAL LANDSCAPE AREA:	±13,728 SF (45%)
PARKING LOT AREA:	±16,589 SF

TREE CANOPY COVERAGE

(7) ACER RUBRUM 'FRANKSRED' (RED SUNSET MAPLE) - 25' DIA. CANOPY AT 15 YEARS = 490 SF X 7 = 3,430 SF
 (7) CARPINUS BETULUS (EUROPEAN HORNBEAM) - 20' DIA. CANOPY AT 15 YEARS = 314 SF X 7 = 2,198 SF

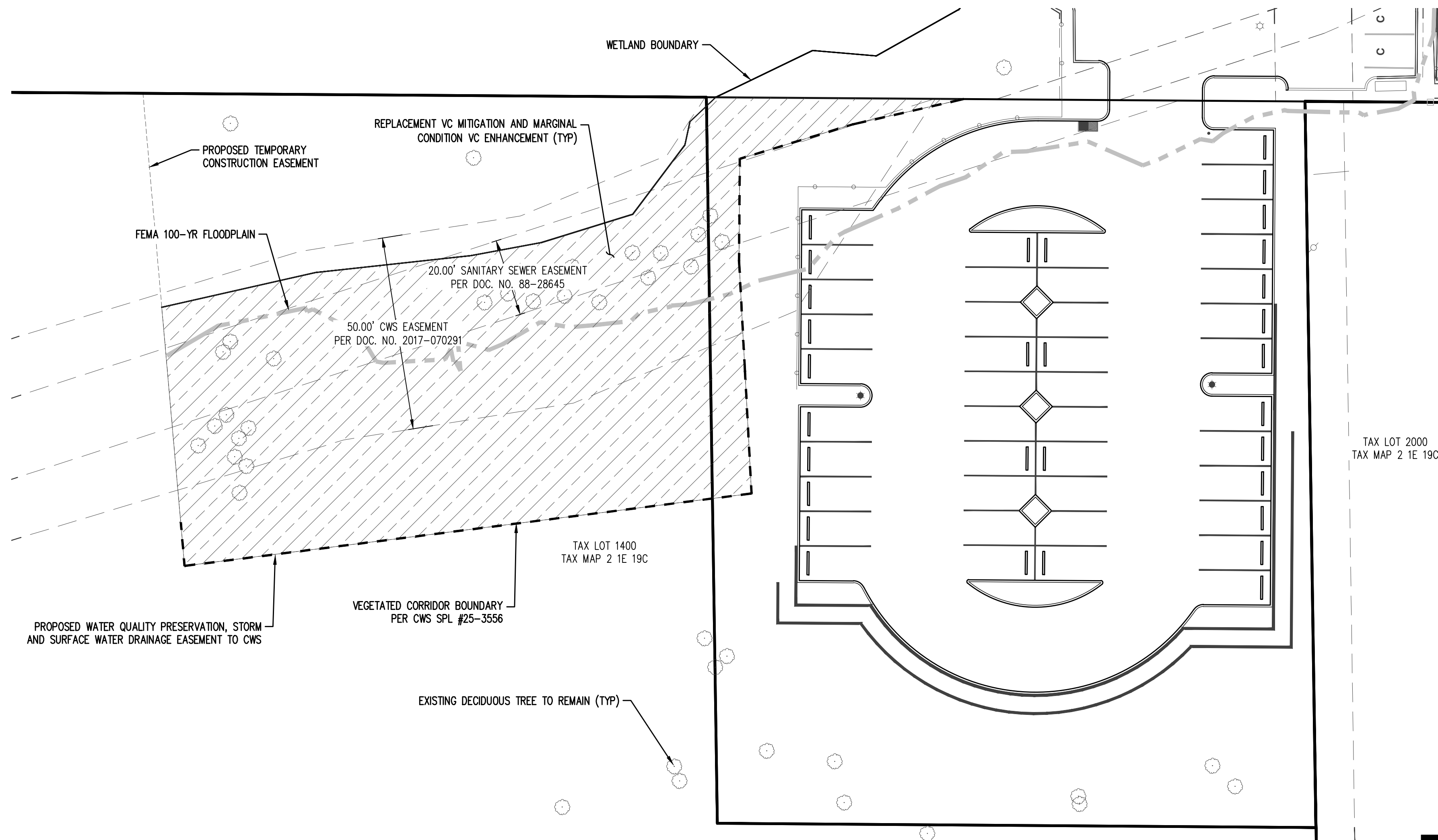
TOTAL TREE CANOPY COVERAGE OF PARKING LOT: 5,628 SF / 16,589 SF PARKING LOT AREA (33%)



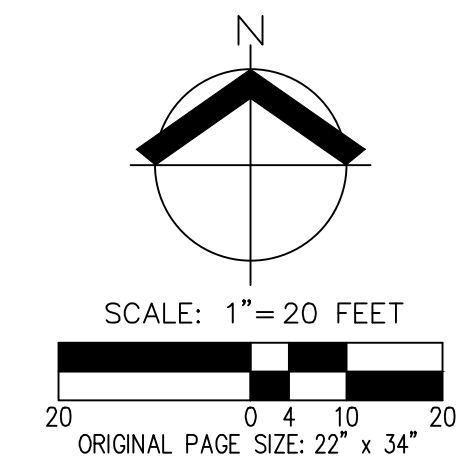
**PRELIMINARY LANDSCAPE PLAN
 PARKING EXPANSION
 STAFFORD HILLS CLUB
 TUALATIN, OR**



JOB NUMBER:	4490-02
DATE:	04/22/2026
DESIGNED BY:	BNF
DRAWN BY:	BNF
CHECKED BY:	TEB



TAX LOT 2000
TAX MAP 2 1E 19C



Stafford Hills Parking Expansion Vegetated Corridor Enhancement and Mitigation Planting Specifications

Planting specifications are for ±3,145 square feet of replacement VC mitigation, ±1,042 square feet of marginal condition VC to be enhanced to good condition, and ±7,393 square feet of marginal condition VC to be enhanced to good condition for public benefit mitigation.

Total Planting Area = ±11,580 square feet

Replacement VC Mitigation and Marginal Condition VC Enhancement (±11,580 square feet)

Scientific Name	Common Name	Size*	Spacing/Seeding Rate	Quantity ¹
Trees (total 93)				
<i>Pseudotsuga menziesii</i>	Douglas-fir	2 gallon	10 feet on center	31
<i>Prunus emarginata</i>	Bitter cherry	2 gallon	10 feet on center	31
<i>Acer macrophyllum</i>	Bigleaf maple	2 gallon	10 feet on center	31
Shrubs (total 579)				
<i>Symphoricarpos albus</i>	snowberry	1 gallon	4-5 feet on center	145
<i>Oemleria cerasiformis</i>	Oso-berry	1 gallon	4-5 feet on center	145
<i>Holodiscus discolor</i>	oceanspray	1 gallon	4-5 feet on center	145
<i>Ribes sanguineum</i>	red flowering currant	1 gallon	4-5 feet on center	144
Seed Mix/Plug²				
<i>Elymus glaucus</i>	Blue wild rye	seed	1 lbs pls/acre	As needed for bare soil
<i>Festuca rubra</i>	Red Fescue	seed	1 lbs pls/acre	areas >25 square feet

¹Bare root plants may be substituted for container plants based on availability. If bare root plants are used, they must be planted during the late winter/early spring dormancy period.

²Please consult local seed supplier specializing in Pacific Northwest native seed mixes for recommended application rates and quantities.

³To account for existing native trees, the number of tree plantings have been reduced by ±20 percent of the quantities required in Appendix A, Section 2.3.c.1 of R&O 19-22.

Planting Notes (per CWS Design & Construction Standards R&O 19-5, amended by R&O 19-22, December 2019 Appendix A Planting Requirements):

- 1) Container stock shall be installed only from February 1 through May 1 and October 1 through November 15. Bare root stock shall be installed only from December 15 through April 15. Plantings outside these times may require additional measures to ensure survival which shall be specified on the plans.
- 2) All non-native invasive vegetation shall be removed from planting areas prior to installing native enhancement plantings. Invasive species control shall be consistent with Clean Water Services' June 2019 Integrated Pest Management (IPM) Plan.
- 3) Appropriate plant selection, along with adequate site preparation and maintenance, reduces the need for irrigation. However, unless site hydrology is currently adequate, a District/City approved irrigation system or equivalent (i.e., polymer, plus watering) shall be used during the two-year plant establishment period. Watering shall be at a minimum rate of at least one inch per week from June 15 through October 15. Other irrigation techniques, such as deep watering, may be allowed with prior approval by District staff.
- 4) Trees, shrubs, and groundcovers planted shall be mulched at a minimum of three inches in depth and 18 inches in diameter, to retain moisture and discourage weed growth around newly installed plant material. Appropriate mulches are made from composted bark or leaves that have not been chemically treated.
- 5) Tree and shrub plantings shall be tagged.
- 6) Depending on site conditions, appropriate measure shall be taken to limit wildlife-related plant damage (see IPM Plan).

Maintenance Plan

- 1) Clean Water Services requires a two-year maintenance period for vegetated corridor enhancement. The enhanced vegetated corridor is to be inspected annually and a minimum of three times during the growing season and one prior to the onset of the growing season over the two-year monitoring period.
- 2) Plant Survival: Clean Water Services' success criterion for vegetated corridor enhancement is 80% survival of tree and shrub plantings during the two years following planting. If any mortality is noted on the site, the factor likely to have caused mortality of the plantings is to be determined and corrected if possible. If survival falls below 80% at any time during the two-year maintenance period, the plantings shall be replaced and other corrective measures, such as mulching or irrigation, may need to be implemented. If replanting is necessary, the maintenance period will be extended for two years from the date of replanting.
- 3) Invasive species control is to be conducted as needed based on the site inspections. Invasive species include Himalayan blackberry (*Rubus armeniacus*), reed canarygrass (*Phalaris arundinacea*), teasel (*Dipsacus fullanum*), Canada and bull thistle (*Cirsium arvense* and *C. vulgare*), Scotch broom (*Cytisus scoparius*), purple loosestrife (*Lythrum salicaria*), Japanese knotweed (*Polygonum cuspidatum*), morning glory (*Convolvulus* species), giant hogweed (*Heracleum mantegazzianum*), English ivy (*Hedera helix*), nightshade (*Solanum* species), and clematis (*Clematis ligusticifolia* and *C. vitalba*).



REVISIONS: 11/30/2026
JOB NUMBER: 4490-02
DATE: 04/22/2026
DESIGNED BY: BNF
DRAWN BY: BNF
CHECKED BY: TEB

EXISTING LIGHTING FIXTURES AND POLES:

US ARCHITECTURAL LIGHTING, RAZAR SERIES
 RZRM/PLED-IV/24LED-350MA/27K/UNV/9005-T

US POLE, SQUARE NON TAPERED STEEL
 SNTS204-11/1-90/RAL-9005-T

AMERILUME LIGHTING, PACKLUME COMPACT
 PKLM-TYPE-IV-19W-U-30K-CP-C

PROPOSED LIGHTING FIXTURES AND POLES:

US ARCHITECTURAL LIGHTING, RAZAR SERIES
 RZRM/PLED-III/24LED-525MA/27K/UNV/9005-T
 OR APPROVED

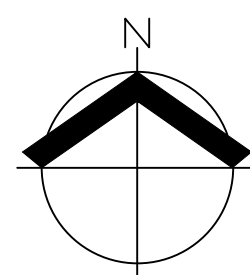
US POLE, SQUARE NON TAPERED STEEL
 SNTS204-11/1-90/RAL-9005-T
 OR APPROVED

PHOTOMETRIC ANALYSIS SUMMARY (ILLUMINANCE METHOD)						
AREA OF INTEREST	AVERAGE LIGHT LEVEL	MAX	MIN	MAX / MIN	AVG / MIN	
EX. PARKING LOT	TARGET	≤0.5 Fc	5	0.13	≤20	≤4
	ACHIEVED	0.66	5.2	0.1	52	6.6
NEW PARKING LOT	TARGET	≤0.5 Fc	5	0.13	≤20	≤4
	ACHIEVED	0.54	1.6	0.1	16	5.4

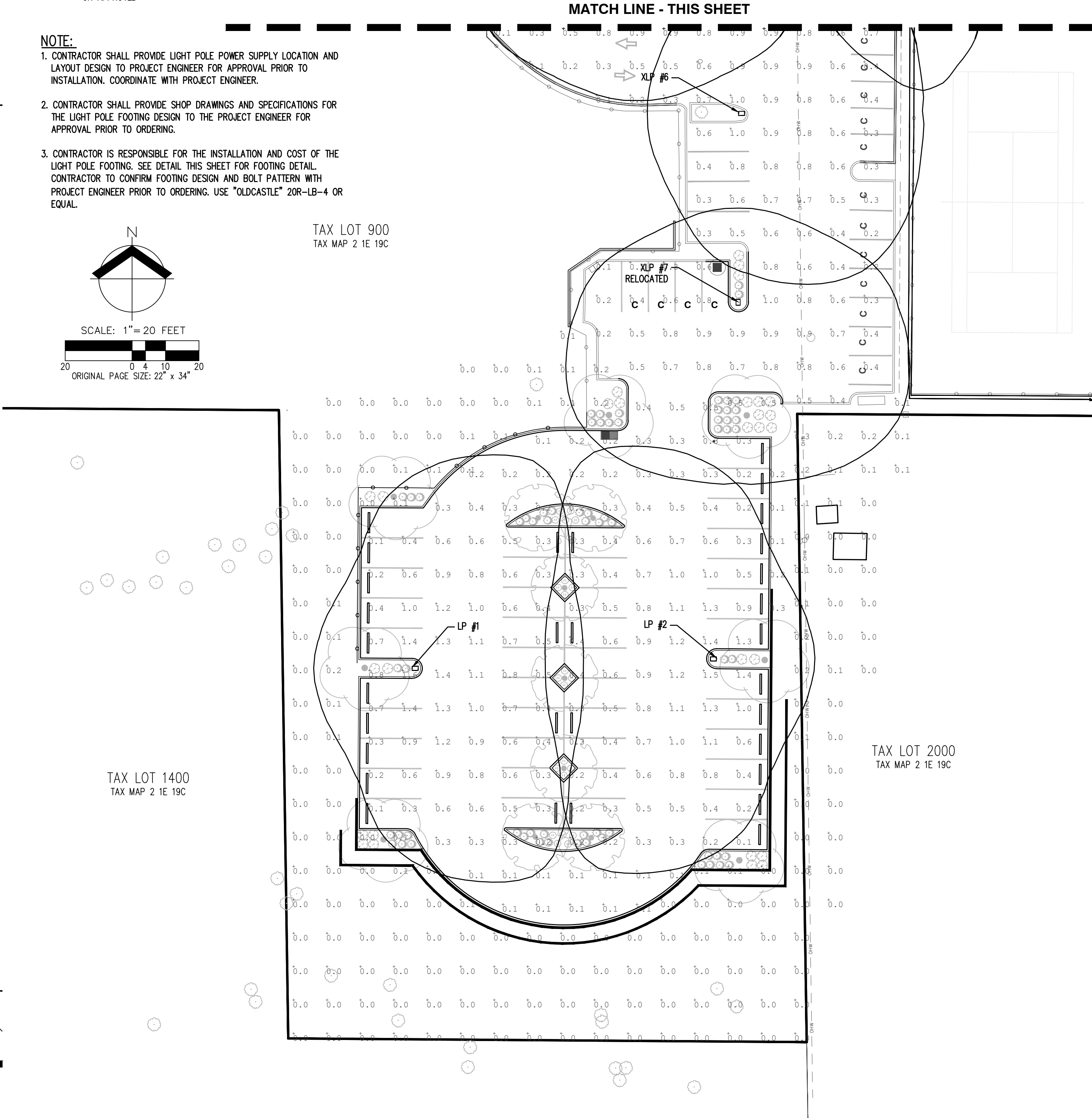
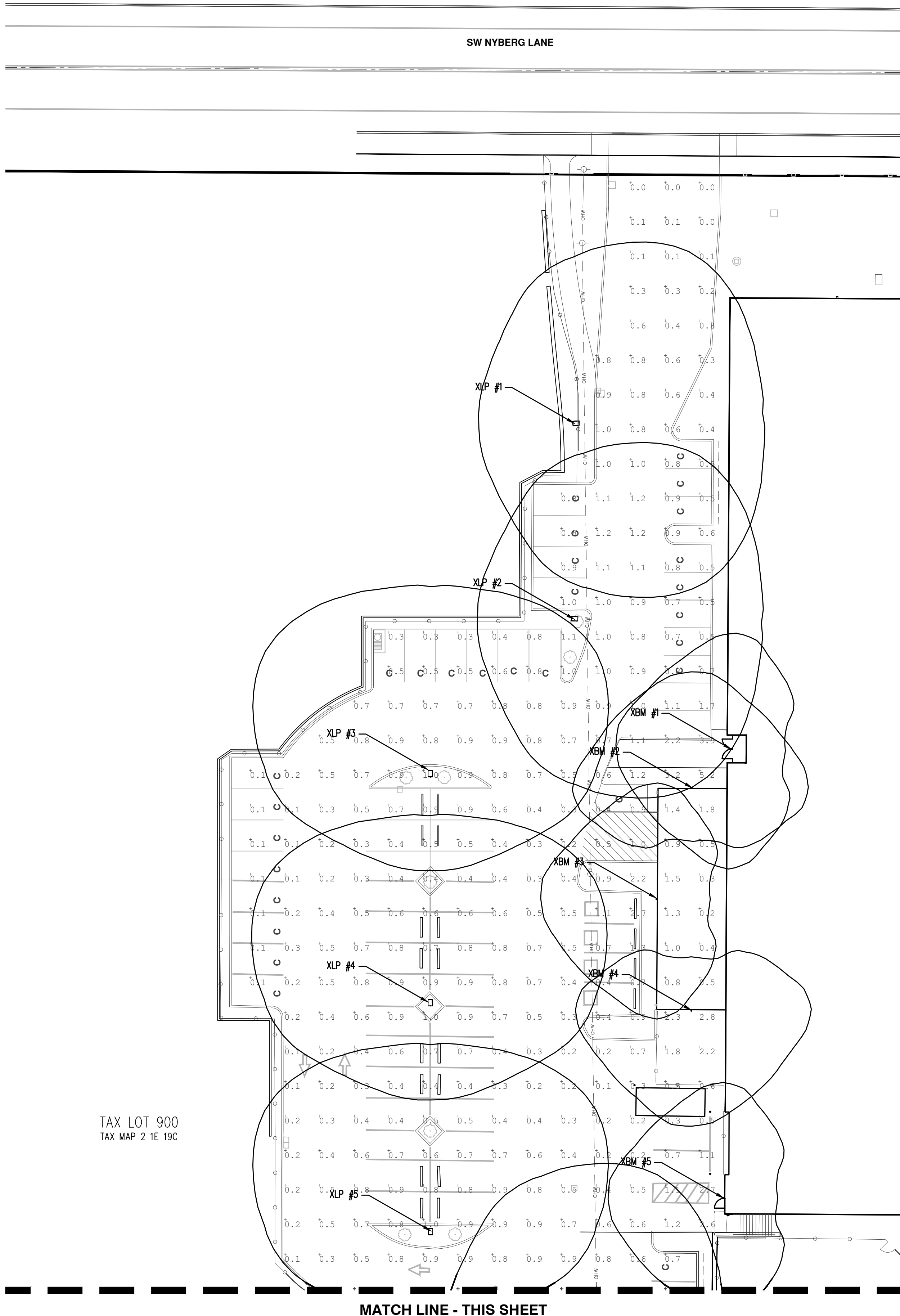
LUMINAIRE TABLE							
TAG	MOUNT		LUMINAIRE				LLF
	STATUS	HEIGHT (FT)	ARRANGEMENT	DISTRIBUTION	INITIAL LUMENS	WATTAGE	
XLP	EXISTING POLE	20	SINGLE	IV	3,741	26	0.85
XBM	EXISTING BUILDING	10	SINGLE	IV	2,151	19	0.85
LP	PROPOSED POLE	20	SINGLE	III	5,446	39	0.85

NOTE:

- CONTRACTOR SHALL PROVIDE LIGHT POLE POWER SUPPLY LOCATION AND LAYOUT DESIGN TO PROJECT ENGINEER FOR APPROVAL PRIOR TO INSTALLATION. COORDINATE WITH PROJECT ENGINEER.
- CONTRACTOR SHALL PROVIDE SHOP DRAWINGS AND SPECIFICATIONS FOR THE LIGHT POLE FOOTING DESIGN TO THE PROJECT ENGINEER FOR APPROVAL PRIOR TO ORDERING.
- CONTRACTOR IS RESPONSIBLE FOR THE INSTALLATION AND COST OF THE LIGHT POLE FOOTING. SEE DETAIL THIS SHEET FOR FOOTING DETAIL. CONTRACTOR TO CONFIRM FOOTING DESIGN AND BOLT PATTERN WITH PROJECT ENGINEER PRIOR TO ORDERING. USE "OLDCASTLE" 20R-LB-4 OR EQUAL.



SCALE: 1" = 20 FEET
 ORIGINAL PAGE SIZE: 22" x 34"



TAX LOT 900
 TAX MAP 2 1E 19C

TAX LOT 1400
 TAX MAP 2 1E 19C

TAX LOT 900
 TAX MAP 2 1E 19C

TAX LOT 2000
 TAX MAP 2 1E 19C

**PRELIMINARY SITE LIGHTING PLAN
 PARKING EXPANSION
 STAFFORD HILLS CLUB
 TUALATIN, OR**

**PRELIMINARY
 NOT FOR
 CONSTRUCTION**

JOB NUMBER: 4490-02
 DATE: 04/22/2026
 DESIGNED BY: TMI
 DRAWN BY: AMJ
 CHECKED BY: CEG

Stafford Hills Club Parking Expansion

Electrical Service Capacity Plan

TDC 73C.030 (10)

