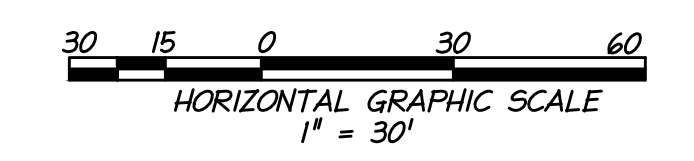


NOTE REGARDING FARR AVENUE EXTENSION:
 4' PAVEMENT AND PLANTING STRIP, VEGETATION, AND STREET LIGHTS SHOWN ON FARR AVENUE AS PART OF THIS PLAN SET ARE ILLUSTRATIVE. FINAL LOCATIONS WILL BE DETERMINED, AND CONSTRUCTION / INSTALLATION UNDERTAKEN, AS PART OF THE FARR AVENUE EXTENDED PLAN BY OTHERS.

NOTE REGARDING ORCHARD STREET RIGHT-OF-WAY:
 4' PAVEMENT AND PLANTING STRIP, VEGETATION, AND STREET LIGHTS SHOWN ON ORCHARD STREET AS PART OF THIS PLAN SET ARE ILLUSTRATIVE. FINAL LOCATIONS WILL BE DETERMINED IN COORDINATION WITH THE FARR AVENUE EXTENDED PLAN BY OTHERS TO MATCH THAT DESIGN.

LANDSCAPE KEY:

- EXISTING TREE TO BE PRESERVED
- COUNTS TOWARDS PARKING LOT REQUIREMENTS
- STREET TREE IN ROW NO CANOPY CREDIT
- CANOPY TREE - DECIDUOUS
- CANOPY TREE - EVERGREEN
- UNDERSTORY TREE - DECIDUOUS
- UNDERSTORY TREE - EVERGREEN
- SHRUB
- HERBACEOUS PLANTINGS
- SEEDING ON FUTURE DEVELOPMENT PARCEL
- BRIGHTVIEW SENIOR LIVING PARCEL
- LINEAR PARK LANDSCAPING



ALL CONSTRUCTION SHALL CONFORM TO THE CURRENT CITY OF FAIRFAX STANDARDS AND SPECIFICATIONS

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 9900 main st
 suite 400
 fairfax, va 22031
 engineering surveying land planning

COMMONWEALTH OF VIRGINIA
Laure B. Donachie
 LAURE B. DONACHIE
 Lic. No. 0406001880
 2020-06-01
 LANDSCAPE ARCHITECT

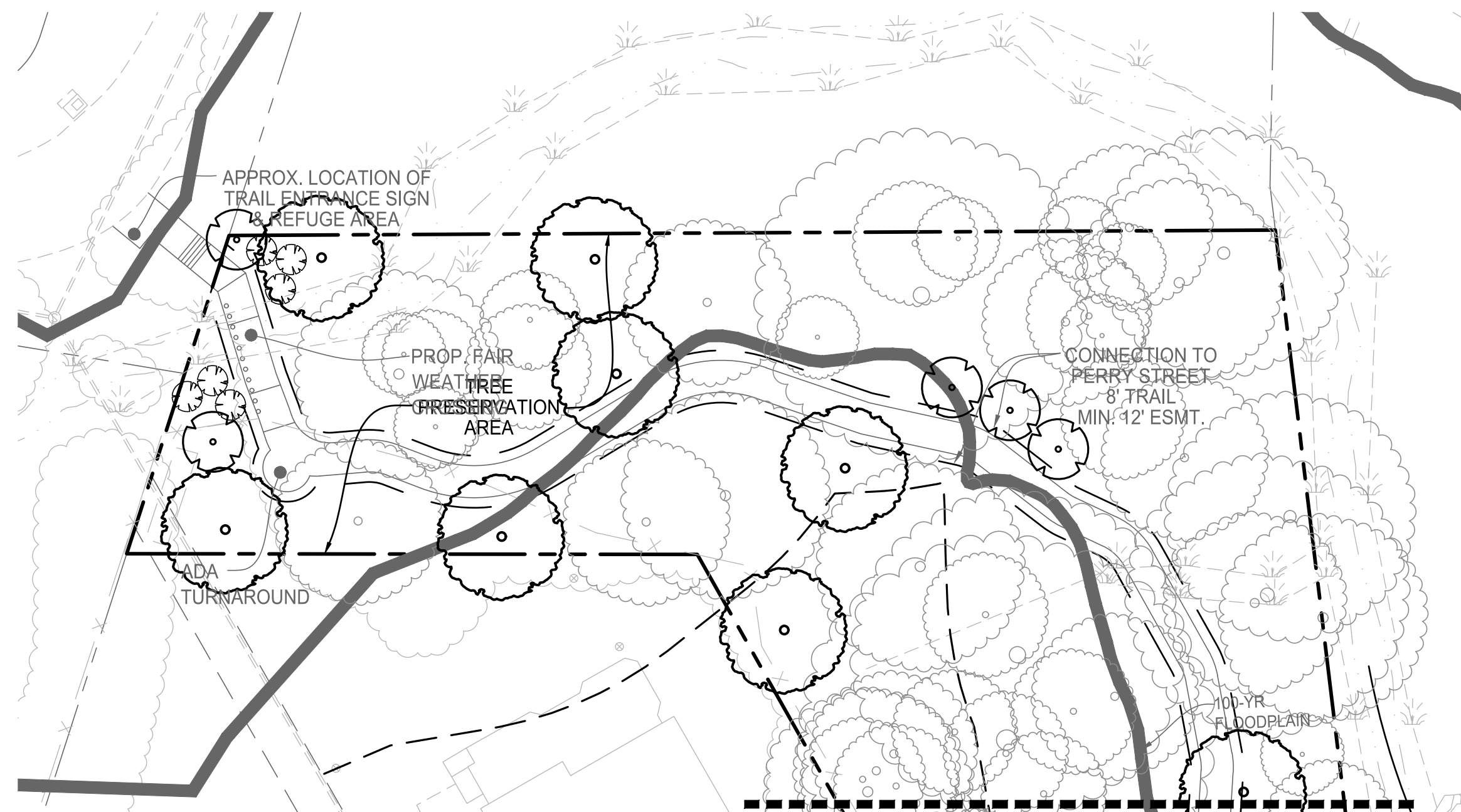
**NORTHFAX WEST
 MASTER DEVELOPMENT PLAN**
 CITY OF FAIRFAX, VIRGINIA

MARK	DATE	DESCRIPTION

PROJECT No.: 13139.005.00
 DRAWING No.: 109632
 DATE: 11-21-2019
 DESIGN: LBD
 DRAWN: LBD
 CHECKED: LBD

**CONCEPTUAL
 LANDSCAPE PLAN**

SHEET No. **6**



MATCH LINE "A" - SEE SHEET 6

SEE SHEET 6 FOR LEGEND

TRANSITIONAL YARDS

TRANSITIONAL YARD 3 - NORTH

REQUIRED	PROVIDED
LINEAR FEET	585'
WIDTH OF LANDSCAPE STRIP	15'
FENCE OR WALL HEIGHT	6' FENCE WALL
CANOPY TREE (4 per 100 feet)	23
UNDERSTORY TREE (4 per 100 feet)	23
UNDERSTORY TREE - EXISTING	20
SHRUB (4 per 100 feet)	23

SEE SHEET 1 FOR MODIFICATION REQUEST

TRANSITIONAL YARD 3 - NORTHEAST

REQUIRED	PROVIDED
LINEAR FEET	232'
WIDTH OF LANDSCAPE STRIP	15'
FENCE OR WALL HEIGHT	6' FENCE WALL
CANOPY TREE (4 per 100 feet)	9
UNDERSTORY TREE (4 per 100 feet)	9
SHRUB (4 per 100 feet)	24

SEE SHEET 1 FOR MODIFICATION REQUEST

TRANSITIONAL YARD 3 - SOUTHEAST

REQUIRED	PROVIDED
LINEAR FEET	327'
WIDTH OF LANDSCAPE STRIP	15'
FENCE OR WALL HEIGHT	6' FENCE WALL
CANOPY TREE (4 per 100 feet)	13
UNDERSTORY TREE (4 per 100 feet)	13
SHRUB (4 per 100 feet)	13

SEE SHEET 1 FOR MODIFICATION REQUEST

TRANSITIONAL YARD 3 - SOUTHWEST

REQUIRED	PROVIDED
LINEAR FEET	75'
WIDTH OF LANDSCAPE STRIP	15'
FENCE OR WALL HEIGHT	6' FENCE WALL
CANOPY TREE (4 per 100 feet)	3
UNDERSTORY TREE (4 per 100 feet)	3
SHRUB (4 per 100 feet)	3

NO MODIFICATION NEEDED

TRANSITIONAL YARD 3 - WEST

REQUIRED	PROVIDED
LINEAR FEET	400'
WIDTH OF LANDSCAPE STRIP	15'
FENCE OR WALL HEIGHT	6' FENCE WALL
CANOPY TREE (4 per 100 feet)	16
UNDERSTORY TREE (4 per 100 feet)	16
SHRUB (4 per 100 feet)	16

SEE SHEET 1 FOR MODIFICATION REQUEST

- NOTES:
 1. NORTHWESTERN TRANSITIONAL YARDS PROVIDED BY EXISTING VEGETATION.
 2. EASTERN TRANSITIONAL YARDS TO BE DETERMINED IN ACCORDANCE WITH MDP AMENDMENT FOR FUTURE DEVELOPMENT PARCEL. TEMPORARY PLANTINGS HAVE BEEN PROVIDED WITH THIS PLAN SET.
 3. WHERE WALLS ARE LOCATED INSIDE THE TRANSITIONAL YARD A FENCE WILL BE ADDED IN ORDER TO MEET THE 6' HEIGHT REQUIREMENT.

10-YEAR TREE CANOPY CALCULATIONS

TREE CANOPY REQUIRED		457,030 SF
SITE AREA (DOES NOT INCLUDE ROW)		457,030 SF
TREE CANOPY COVERAGE REQUIRED PER ZO 4.5.6.A.		10 %
TOTAL CANOPY AREA REQUIRED		45,703 SF
TREE CANOPY PROVIDED		45,703 SF
PLANT TYPE	STOCK SIZE	QUANTITY
CANOPY TREE	2" CALIPER	54
UNDERSTORY TREE	2" CALIPER	140
SUBTOTAL CANOPY AREA PROVIDED THROUGH TREE PLANTING		24,800 SF
SUBTOTAL CANOPY AREA PROVIDED THROUGH TREE PRESERVATION		37,000 SF
TOTAL CANOPY AREA PROVIDED		61,800 SF
TOTAL CANOPY COVERAGE PROVIDED		13.5 %

NOTE: THE TREES PROPOSED WITHIN FARR AVENUE EXTENDED AND ORCHARD STREET ROW ARE NOT INCLUDED IN THE ABOVE TREE CANOPY CALCULATIONS.

- STREET TREES REQUIRED:**
 MINIMUM 10' WIDE LANDSCAPE STRIP ALONG ALL STREETS
 1 CANOPY TREE PER 40 LINEAR FEET ALONG ALL STREETS
- INTERIOR PARKING LOT LANDSCAPING REQUIRED:**
 1 CANOPY TREE FOR EVERY 10 SPACES
- INTERIOR PARKING LOT LANDSCAPING PROVIDED:**
 7 CANOPY TREES FOR 34 SPACES
 SEE SHEET 1 FOR MODIFICATION REQUEST.
- STREET TREES PROVIDED: PER CITY PROVIDED DESIGN**
 4' WIDE LANDSCAPE STRIP ALONG ALL PUBLIC AND PRIVATE STREETS
 CANOPY TREES GREATER THAN EVERY 40 FEET
 SEE SHEET 1 FOR MODIFICATION REQUEST.

PROPOSED VEGETATION
 ALL PROPOSED VEGETATION SHOWN IN THE FARR AVENUE EXTENDED AND ORCHARD STREET ROW IS FOR ILLUSTRATIVE PURPOSES ONLY. PROPOSED VEGETATION IN THE FARR AVENUE EXTENDED ROW WILL BE DESIGNED AND INSTALLED AS PART OF A SEPARATE PLAN SUBMISSION, BY OTHERS, THAT IS CURRENTLY ONGOING. ONCE COMPLETED, THAT DESIGN WILL BE REPLICATED ALONG THE ORCHARD STREET ROW AS PART OF A SEPARATE PUBLIC IMPROVEMENTS SUBMISSION, BY CHRISTOPHER CONSULTANTS, THAT IS CURRENTLY ONGOING.

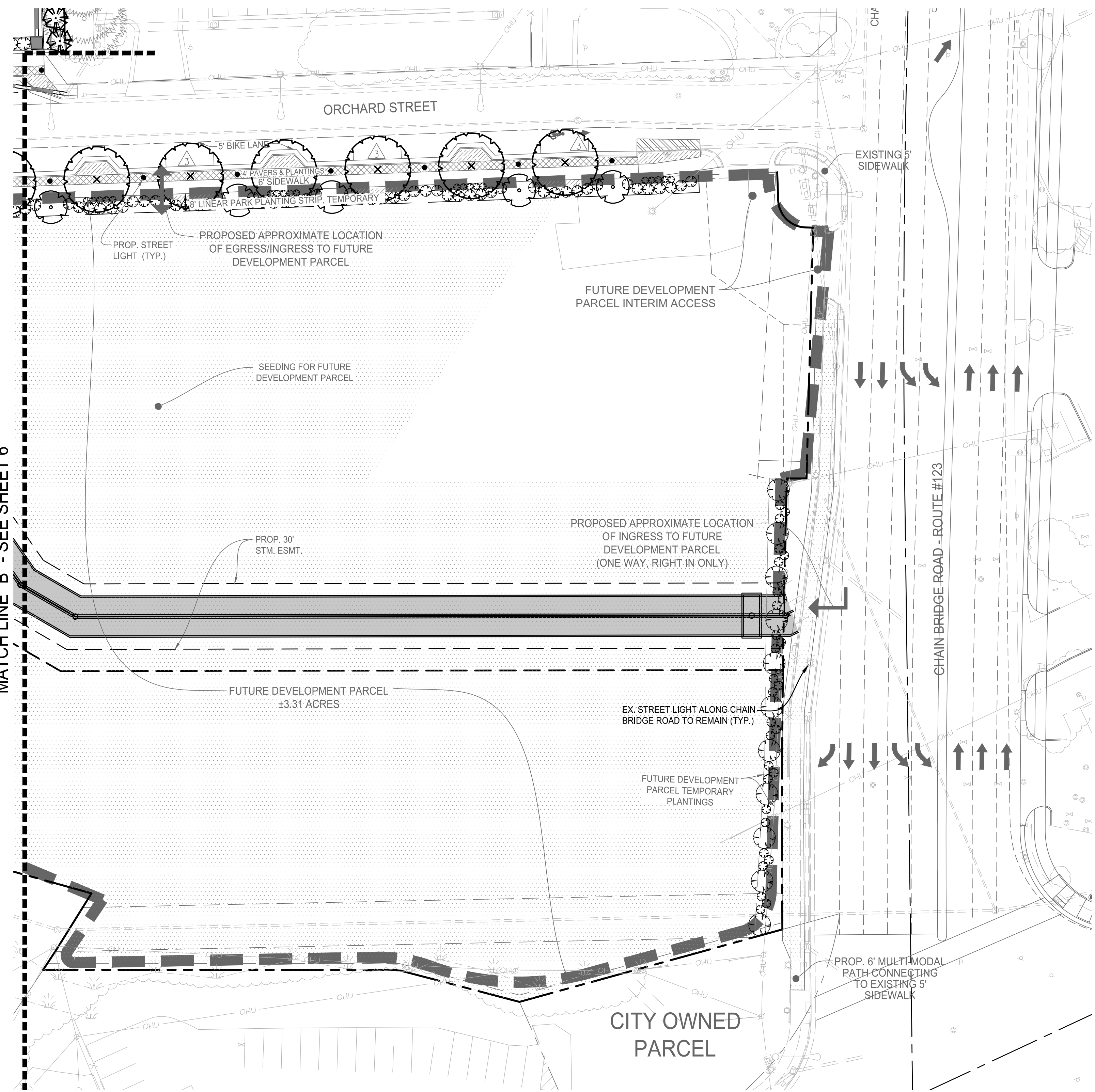
NATIVE SPECIES AND NATIVE CULTIVARS, TO THE GREATEST EXTENT FEASIBLE, AND NON-INVASIVE SPECIES TO BE USED. SPECIES ARE SUBJECT TO CHANGE AT THE TIME OF SITE PLAN DUE TO FINAL ENGINEERING, SUITABILITY OF GROWING CONDITIONS, AND AVAILABILITY. PROPOSED VEGETATION LOCATIONS SUBJECT TO CHANGE AT THE TIME OF SITE PLAN AND FINAL ENGINEERING.
 PROPOSED SPECIES MAY INCLUDE BUT NOT LIMITED TO:

BOTANICAL NAME	COMMON NAME
CANOPY TREES - DECIDUOUS	
<i>ACER RUBRUM</i>	RED MAPLE
<i>ACER RUBRUM</i> 'FRANK JR.' PP 16769	REDPOINTE RED MAPLE
<i>GLEDTISIA TRIACANTHOS INERMIS</i> 'IMPCOLE'	IMPERIAL THORNLESS HONEYLOCUST
<i>LIQUIDAMBAR STYRACIFLUA</i> 'ROTUNDOLOBA'	SWEETGUM
<i>LIRIODENDRON TULIPIFERA</i> 'JFS-OZ'	EMERALD CITY TULIP POPLAR
<i>NYSSA SYLVATICA</i>	BLACKGLUM
<i>QUERCUS ALBA</i>	WHITE OAK
<i>QUERCUS BICOLOR</i>	SWAMP WHITE OAK
<i>QUERCUS FALCATA</i>	SOUTHERN RED OAK
<i>QUERCUS PALUSTRIS</i>	PIN OAK
<i>ULMUS AMERICANA</i> 'NEW HARMONY'	AMERICAN ELM
CANOPY TREES - EVERGREEN	
<i>MAGNOLIA GRANDIFLORA</i>	SOUTHERN MAGNOLIA

BOTANICAL NAME	COMMON NAME
UNDERSTORY TREES - DECIDUOUS	
<i>AMELANCHIER LAEVIS</i> 'JFS-ARB' PP 15304	SPRING FLURRY SERVICEBERRY
<i>BETULA NIGRA</i> 'BNVT'	DURA-HEAT RIVER BIRCH
<i>CARPINUS CAROLINA</i>	AMERICAN HORNBEAM
<i>CERCIS CANADENSIS</i> 'APPALACHIAN RED'	EASTERN REDBUD
<i>CORNUS FLORIDA</i> 'APPALACHIAN SPRING'	FLOWERING DOGWOOD
UNDERSTORY TREES - EVERGREEN	
<i>ILEX OPACA</i> 'JERSEY KNIGHT' (male)	AMERICAN HOLLY
<i>ILEX OPACA</i> 'SATYR HILL' (female)	AMERICAN HOLLY
<i>JUNIPERUS VIRGINIANA</i>	EASTERN REDCEDAR
<i>THUJA</i> 'GREEN GIANT'	GREEN GIANT ARBORVITAE

BOTANICAL NAME	COMMON NAME
SHRUBS - DECIDUOUS	
<i>CLETHRA ALNIFOLIA</i>	SUMMERSWEET/SWEET PEPPERBUSH
<i>CORNUS SERICEA</i> 'KELSEY'	KELSEY'S DWARF RED OSIER DOGWOOD
<i>FOTHERGILLA GARDENII</i>	DWARF FOTHERGILLA
<i>HAMMELIS VIRGINIANA</i>	WITCH-HAZEL
<i>ILEX VERTICILLATA</i>	WINTERBERRY
<i>ITEA VIRGINICA</i>	VIRGINIA SWEETSPIRE
<i>LINDERA BENZOIN</i>	SPICEBUSH
<i>RHUS AROMATICA</i> 'GRO-LOW'	FRAGRANT SUMAC
<i>VACCINIUM ANGUSTIFOLIUM</i>	LOWBUSH BLUEBERRY
<i>VIBURNUM ACERIFOLIUM</i>	MAPLELEAF VIBURNUM
SHRUBS - EVERGREEN	
<i>ILEX GLABRA</i>	INKBERRY
<i>ILEX VOMITORIA</i> 'CONDEAUX'	BORDEAUX DWARF YAUPOH HOLLY
<i>JUNIPERUS VIRGINIANA</i> 'GREY OWL'	GREY OWL JUNIPER
<i>LEUCOTHOE FONTANESIANA</i>	DROOPING FETTERBUSH
<i>MYRICA CERIFERA</i>	WAX MYRTLE

BOTANICAL NAME	COMMON NAME
HERBACEOUS	
<i>ANEMONE NEMOROSA</i>	WOOD ANEMONE
<i>ASARUM CANADENSE</i>	WILD GINGER
<i>COREOPSIS VERTICILLATA</i> 'MOONBEAM'	THREADLEAF TICKSEED
<i>ERYSIMUM X 'BOWLES' MAUVE'</i>	WALLFLOWER
<i>EUPHORBIA PALUSTRIS</i>	MARSH SPURGE
<i>FESTUCA MAIREI</i>	ATLAS FESCUE
<i>HEUCHERA X 'LIME MARMALADE'</i>	CHARTREUSE CORAL BELLS
<i>HEUCHERA X 'PRINCE'</i>	PRINCE HEUCHERA
<i>HOSTA X 'FRANCES WILLIAMS'</i>	PLANTAIN LILY
<i>LYCHNIS FLOS-JOVIS</i> 'HORTS VARIETY'	FLAVOR OF LOVE
<i>MUHLENBERGIA CAPILLARIS</i>	PINK MUHLY GRASS
<i>PENSTEMON DIGITALIS</i> 'HUSKER RED'	BEARDTONGUE
<i>POLYSTICHUM ACROSTICHOIDES</i>	CHRISTMAS FERN



MATCH LINE "B" - SEE SHEET 6

christopher consultants
 9900 main st suite 400 fairfax, va 22031
 engineering surveying land planning

COMMONWEALTH OF VIRGINIA
 LAURE B. DONNACHE
 Lic. No. 0406001880
 2020-06-01
 LANDSCAPE ARCHITECT

NORTHFAX WEST MASTER DEVELOPMENT PLAN
 CITY OF FAIRFAX, VIRGINIA

MARK	DATE	DESCRIPTION

PROJECT No.: 13139.005.00
 DRAWING No.: 109632
 DATE: 11-21-2019
 DESIGN: LBD
 DRAWN: LBD
 CHECKED: LBD

SHEET TITLE:
CONCEPTUAL LANDSCAPE PLAN

SHEET No.
6A

Specification: This is a summary of christopher consultants, ltd. general landscape specification. All work shall follow the procedures outlined in the specifications and details contained herein, which are designed to exceed current industry standards. Should there exist a discrepancy between this specification and the included construction details, the written specification shall take precedence.

References: In lieu of providing comprehensive proprietary specifications, the following are referenced to be general default specifications with the following modifications. These modifications and the construction details shown in this plan set shall take precedence over the general referenced specifications.

- "Landscape Specification Guidelines" Landscape Contractors Association of MD, DC, VA - Most current edition.
- "American Standard for Nursery Stock - ANSI Z60.1" by AmericanHort - Most Current Edition
- "TT-77 Recommended Turfgrass Cultivars for Certified Sod Production in Maryland" - Maryland Turfgrass Council
- "Landscape Architecture/Design Specifications for Compost Use" - US Composting Council

If there are discrepancies or contradictions in specification sections or details, the stricter specification shall take precedence. A Request for Information (RFI) can also be submitted for clarification.

List of Plant Material: The contractor will verify plant quantities prior to bidding and any discrepancies shall be brought to the attention of the Owner's Representative. The Contractor shall furnish and install all plant materials required to complete the work as shown on the drawings. Quantities in the planting schedule shall take precedence over quantities graphically shown on the plan. Substitutions shall not be made without the written approval of the Owner's Representative.

Plant Identification: All trees shall be true to name as on plant schedule or shown on planting plans and shall be correctly labeled individually or in groups by genus, species, variety and cultivar. Labels are to remain intact until site is approved through agency inspection, substantial completion approval, or per Owner's Representative's instruction.

Plant Quality: All plant materials shall conform to the size and form standards set forth in the latest edition of AmericanHort's "American Standard for Nursery Stock - ANSI Z60.1". Above Ground: Trees shall be healthy with the color, shape, size, and distribution of trunk, stems, branches, buds and leaves typical of the plant specified. Any signs of stress, improper handling (wounds or broken branches), insect or disease damage, or dead/distorted branches should not be present. Trees shall have one central leader (unless otherwise specified) and grafts should be fully closed and visible above the soil line. Below Ground: A minimum of 3 structural roots should be reasonably distributed around the trunk (reject a tree with structural roots only on one side), the root crown should not be more than 2 inches below the soil line, the top 2 structural roots should not be more than 3 inches below the soil line when measured 4 inches away from the trunk. The top of the other structural root should not be more than 5 inches below the surface. The root system should be free of potentially stem-girdling or kinked roots above the root collar and main structural roots.

Inspection: Plants are to be inspected upon delivery to contractor by a contractor's representative and/or owner's representative. Trees not presenting proper form, incorrect variety, signs of poor health or over-stress, and girdling roots are to be rejected.

Storage & Transport: Plant materials should be protected from desiccation during transport via breathable fabric covering the canopy and by watering rootball/pot thoroughly immediately prior to transport. Plant materials should be installed on day of delivery to site. If that is not possible, a temporary storage area can be constructed on-site. Plants are not to be stored on bare asphalt. If storage area is asphalt, cover bare asphalt with a layer of woodchips. Storage should be in shade, and plants be regularly watered at root-ball level, and spaced so foliage from one plant does not interfere with foliage of another. Tall plant materials are to remain upright during storage. Longer term storage plants are to be heeled-in or stored in mulch to the top of the container/root ball. Plant materials shall not be stored on-site for more than two weeks. Plants stored improperly or for too long may be subject to rejection and replacement dependent on ultimate planting condition.

Planting: Plantings shall be installed in accordance with details and specifications on this sheet. Details and specifications for other specific landscape items, such as tree preservation or erosion control may be found elsewhere in this drawing set on their own respective sheet. For items not specifically addressed by this plan set, refer to the latest edition of the "Landscape Specification Guidelines" developed by the Landscape Contractors Association of MD, DC, and VA. Should there be any ambiguities or questions, please utilize the formal RFI/Submittal process.

Trees: The planting hole diameter is to be a minimum three times the diameter of the root ball. The depth of the planting hole shall be dug so that the shoulder of the root flare is at the level of the existing grade leaving the root flare slightly higher. When planting on a slope, the depth of the hole shall be dug so that the bottom of the root flare is at the level of the existing grade at the sides of the hole. If the planting hole is mechanically dug, the hole is to be scarified by slightly enlarging hole by hand digging the sides and bottom to prevent glazing. The sides of the hole should be vertical or sloping outward. Holes are not to be dug when soil is saturated. For balled and burlapped trees, the wire root ball cage is to be removed and burlap is to be cut and completely removed from the top and a minimum of 8" to 12" down the side of the root ball. Do not fold burlap down into hole, it must be removed. Any synthetic materials are to be completely removed from the trunk and root ball. Backfill in lifts using the same soil dug to create the hole, being careful not to over-compact the soil. Inoculate backfill soil or rootball with an approved balanced (Endo/Ecto) commercial mycorrhizae application. Do not amend or add fertilizer unless expressly specified to do so or is part of the approved mycorrhizae innoculant product. Do not place any soil on top of root ball. Trees are to be mulched to full depth specified immediately after planting. A 1/2" layer of approved compost is to be placed under the mulch layer. Do not place mulch against tree trunk.

Staking (if any) is to be installed per the accompanying details, utilizing tree webbing straps with grommets to prevent wire from coming in contact with the tree. While not preferred, full tree webbing systems are also permissible if approved through submittal, and installed per manufacturer's instructions. Wire is to be tensioned to allow for 1/2 inch of deflection up or down, and tension shall be rechecked and adjusted on a regular basis. Staking is to be removed as soon as possible after one year. GARDEN HOSE IS NOT TO BE UTILIZED FOR STAKING.

Irrigation: For permanent systems, irrigation should be largely installed prior to plant installation to avoid having to disturb planting beds or move plants to accommodate the installation of the irrigation system. For sites with no permanent irrigation system, Trees are to be irrigated until established by the use of temporary water bags through one growing year or until established. Shrubs, perennial beds, and lawns are to be thoroughly hand-watered or by movable temporary irrigation (sprinklers or drip hose) as necessary to reflect local weather conditions. Watering is to be deep into the soil and infrequent, as opposed to light surficial watering performed often.

Shrubs: For container shrubs, the planting hole is to be dug 3 times the width of the intact container. The container is to be completely removed and the sides of the soil/root dump scarified with a sterile sharp knife. They shall be planted so that the top of the soil level of the container is no more than 1.5" above the original grade. For balled and burlapped shrubs, remove as much burlap as possible from the top and sides of the rootball. Do not fold burlap into hole. Plant with the root flare slightly higher than the surrounding grade. Backfill with soil dug to create the hole. Do not cover top of root ball/dump.

Ground Covers/Perennials: Beds are to be prepared by tilling well to a minimum depth of 6", and soils shall be amended by incorporating 1" of compost meeting the US Composting Council reference specification, 1" of worm castings and/or well decomposed commercially produced compost, or a Class A biosolid also meeting the referenced US Composting Council specification prior to planting. Apply 3" of shredded non-dyed hardwood mulch immediately after planting.

Compacted or Poorly Drained Soils: For sites with heavily compacted or poorly draining soils, alternate planting methods will need to be employed. Contact project Landscape Architect for additional planting details and specifications should either unforeseen condition be encountered.

Conflicts with Existing Roots: Proposed landscape may be shown to be planted in the Critical Root Zones of existing large trees. Should, in the course of planting, large woody roots be discovered belonging to adjacent large trees that are to be preserved, shift the planting location of the tree to be planted to avoid cutting the woody root. Should a suitable planting location not be found within the proximity of where a proposed tree is to be planted, contact the project landscape architect for alternate planting location and recording of the discrepancy for landscape inspection/approval purposes.

Irrigation: New plant materials are to be watered as necessary to maintain health. If no permanent irrigation system is installed, trees are to be watered until established through the use of temporary water bags. Shrubs, perennials, and ground covers shall be hand-watered. Infrequent deep watering is preferred to more frequent quick/shallow watering.

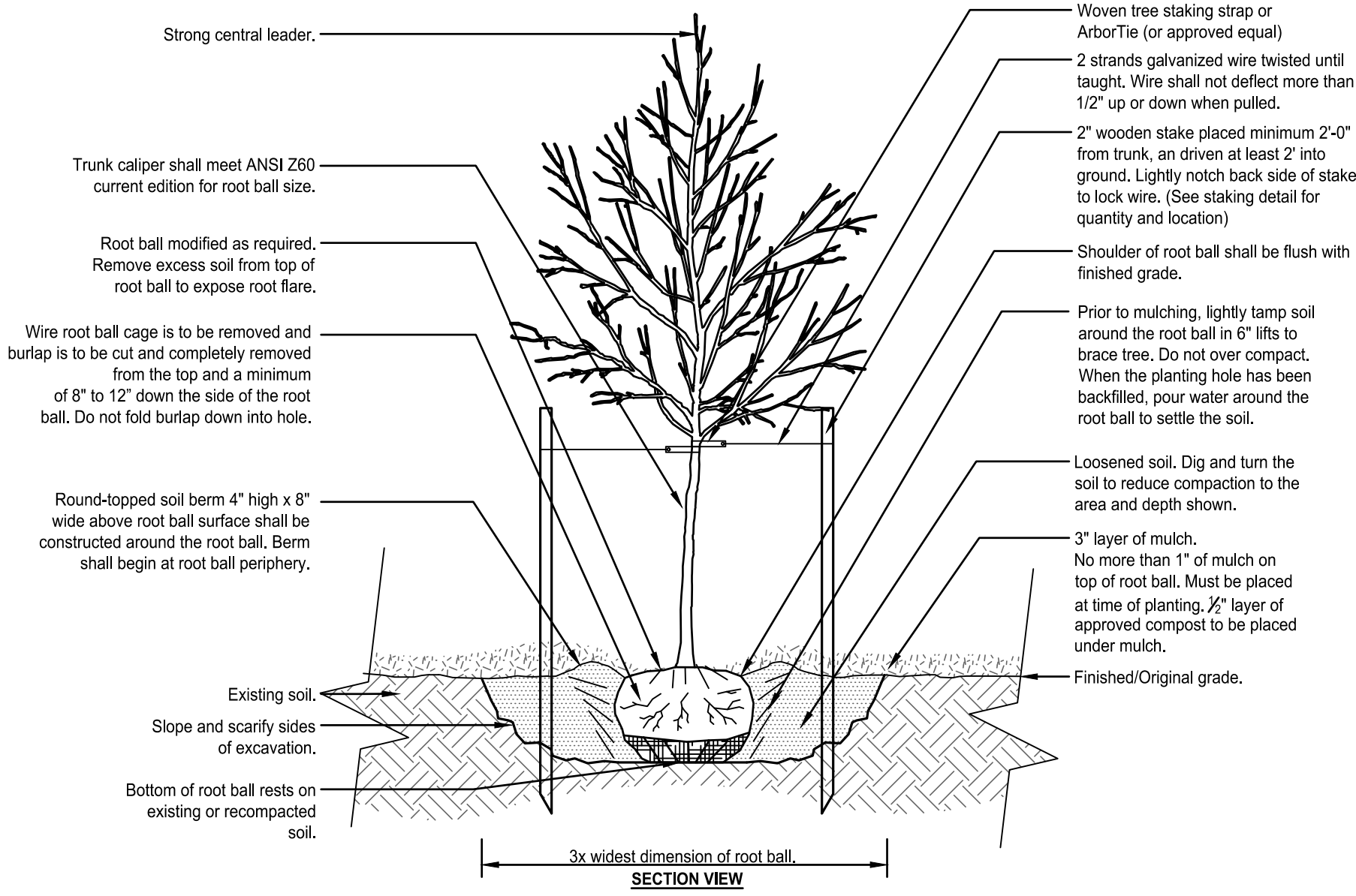
Lawn Areas:

Seeded Lawn Area: Areas to be seeded shall have planting soil tilled to a depth of 6" and free of stones greater than 1" diameter or length. Any amendments that are to be added should be tilled into soil prior to seeding. A seed mix composition chart shall be submitted for review prior to installation. Unless specified by the Owner's Representative, the seed mix must contain a minimum of three cultivars or types of grass in the blend, chosen from the recommended cultivars list of the most recent "TT-77 Recommended Turfgrass Cultivars for Certified Sod Production in Maryland" document produced by the University of Maryland and the Maryland Turfgrass Council. Use of cultivars also appearing on the Turfgrass Water Conservation Alliance approved list is encouraged. Seeds coatings that aid in germination, moisture retention and prevent loss to bird consumption are acceptable. Seeded areas are to be covered by a light and loose layer of rapidly degradable mulch such as straw or hydraulically applied cellulose. Use of erosion control blankets or any synthetic webbing is not permissible for lawn areas unless specified by the Owner's Representative.

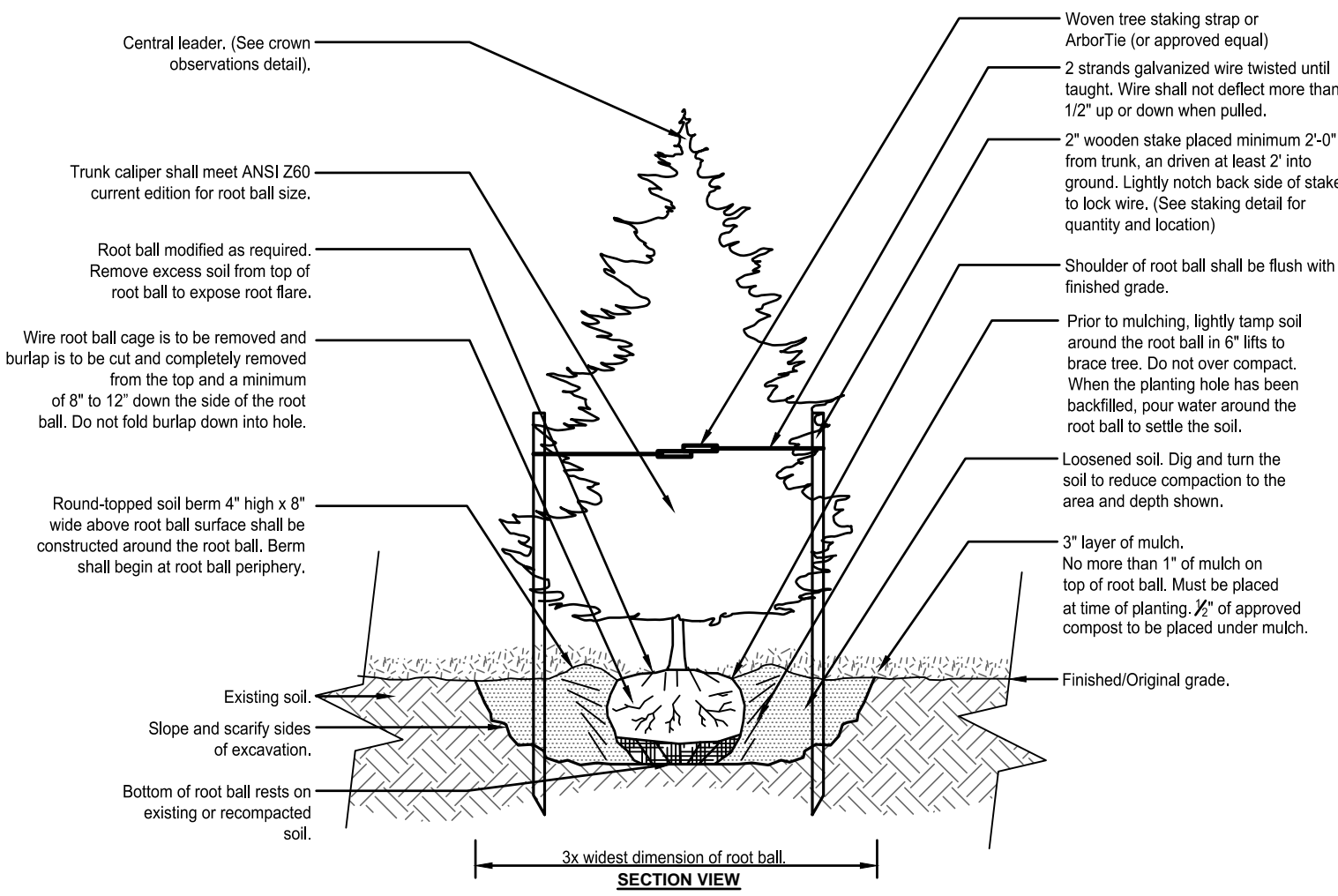
Sodded Lawn Area: Unless a proprietary sod is specified by the Owner's Representative, sod must be of a Maryland or Virginia certified variety suited to the specific growing requirements of where it is to be installed. Grower and variety to be submitted to Owner's Representative for review prior to ordering. Certification documentation for all sod is to be provided to the Owner's Representative upon delivery. For installation on slopes, the Contractor shall use biodegradable sod spikes to secure sod in place. Metal sod staples are not to be utilized for installation.

Invasive Species: Existing invasive species are to be removed utilizing appropriate approved methods including in the invasive species management plan (if applicable) prior to the installation of new plant materials, and is subject to inspection, and is a factor in the Certification of Installation.

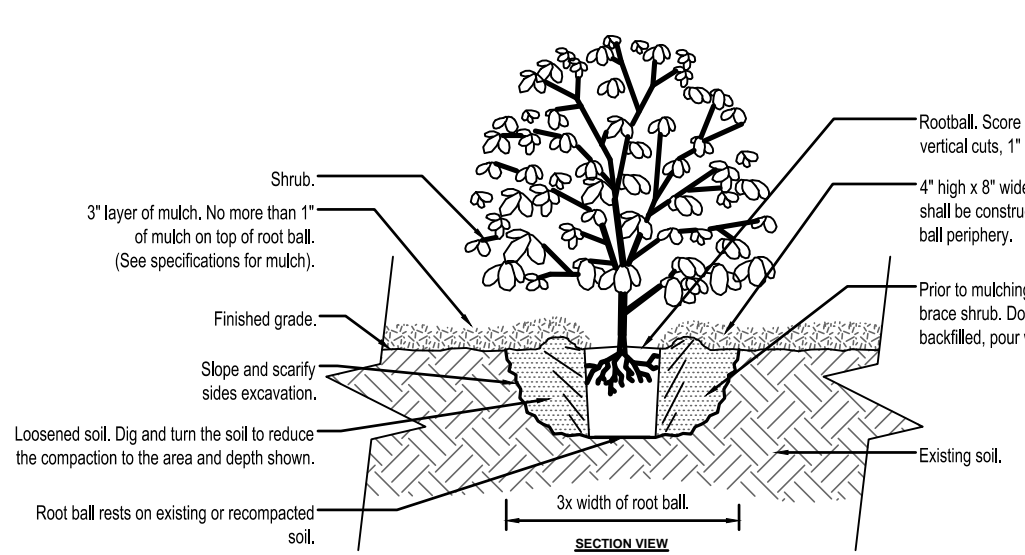
NOTE: These specifications and details are based on those developed by the Urban Tree Foundation, and have been improved to reflect current research into effective planting. The ISA has also replaced their own details and now reference the UTF details. The specifications and details illustrated in this plan set exceed the standards set in the ISA, LCA, and local jurisdictional planting details and specifications.



DECIDUOUS TREE PLANTING DETAIL
SCALE: NOT TO SCALE

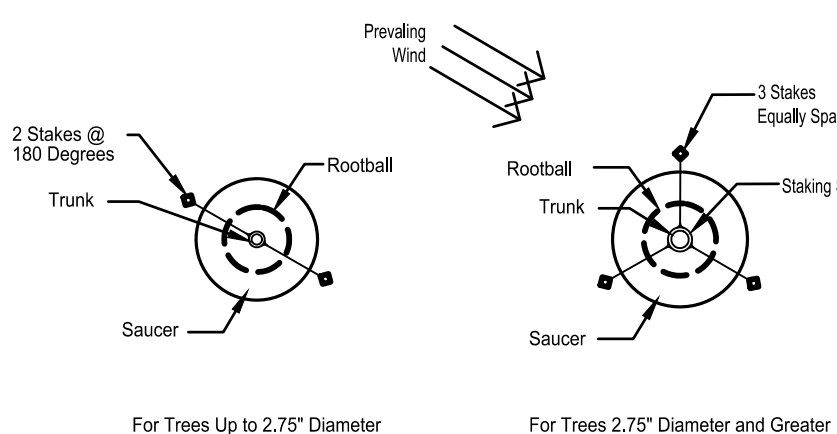


EVERGREEN TREE PLANTING DETAIL
SCALE: NOT TO SCALE



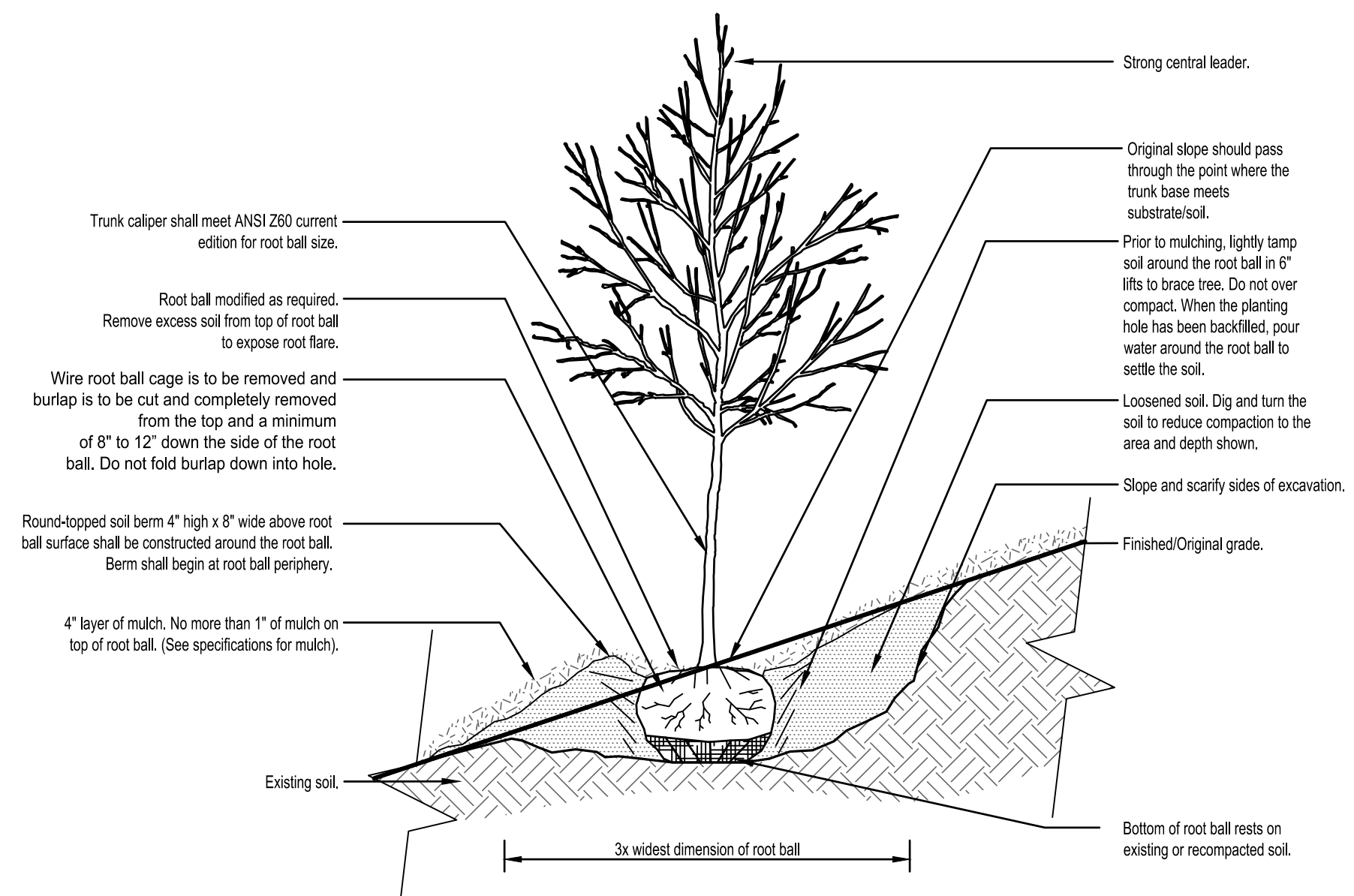
- Notes:
1. For ball and burlapped shrubs, remove completely as much burlap as possible, minimum halfway down the side of the rootball. Do not fold burlap down into hole.
2. See specifications for further requirements related to this detail.

SHRUB PLANTING DETAIL
SCALE: NOT TO SCALE

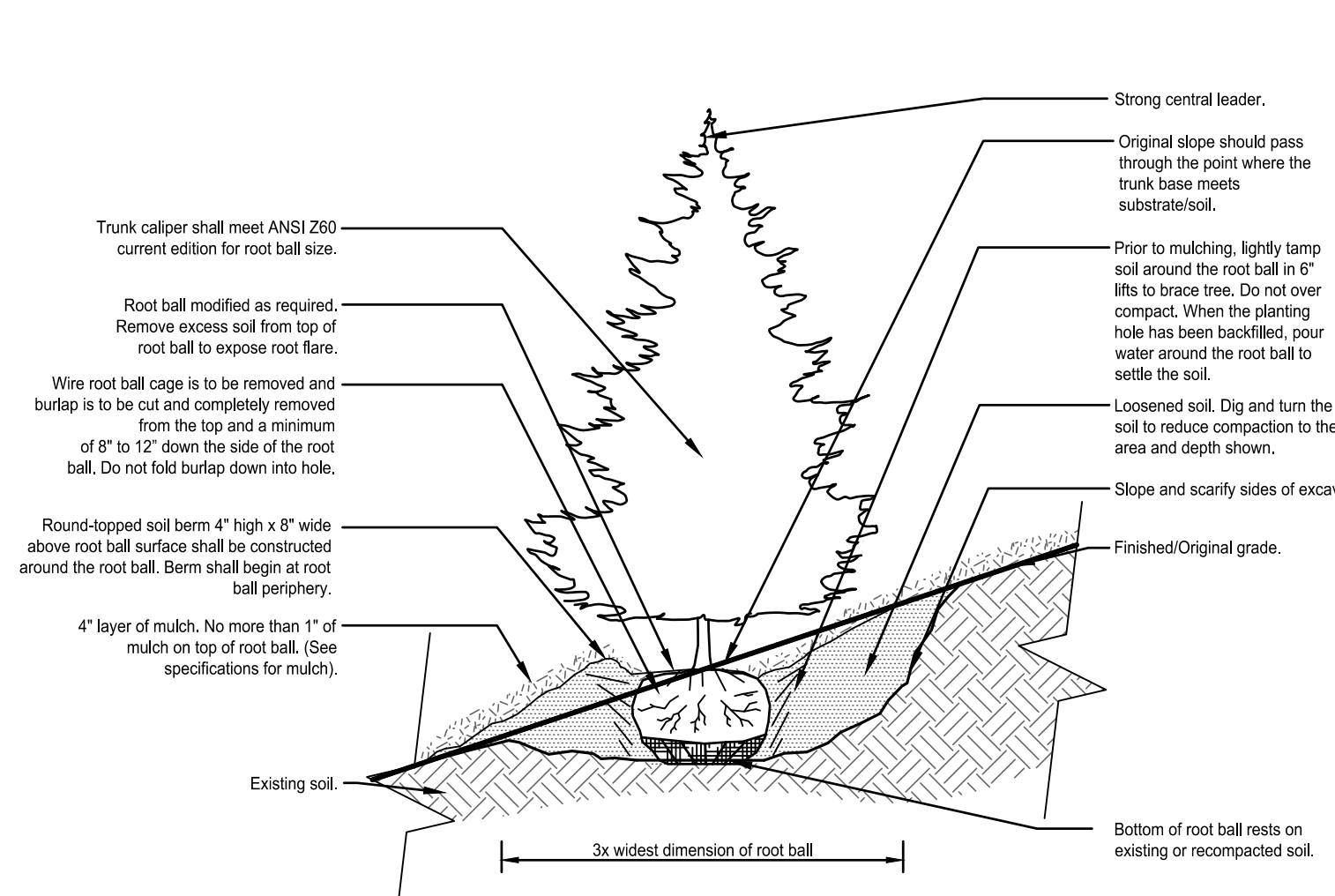


- Notes:
1. Utilize only ArborTie or approved equal or staking straps against tree trunks.
2. Reference manufacturer's detail of approved system for installation instructions.
3. Wire tension (if used) should not allow greater than 1/2 inch of play in any direction.
4. Staking should be removed one year after planting or as instructed.

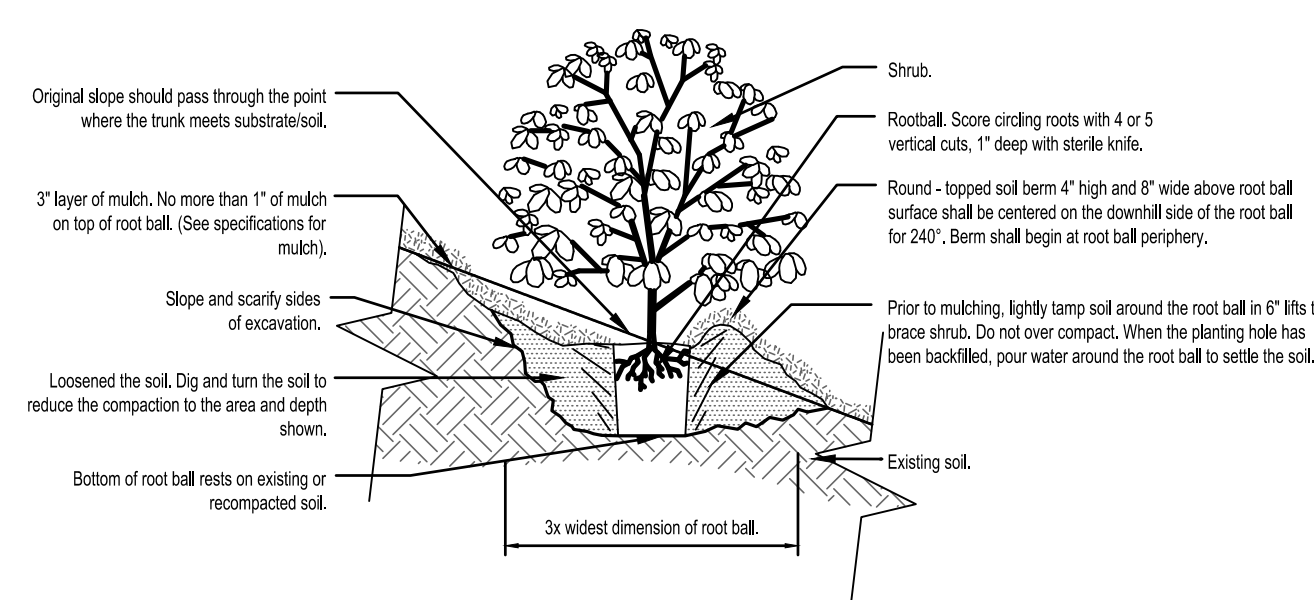
TREE STAKING DETAIL
SCALE: NOT TO SCALE



DECIDUOUS TREE SLOPE PLANTING DETAIL
SCALE: NOT TO SCALE



EVERGREEN TREE SLOPE PLANTING DETAIL
SCALE: NOT TO SCALE



- Notes:
1. For ball and burlapped shrubs, remove completely as much burlap as possible, minimum halfway down the side of the rootball. Do not fold burlap down into hole.
2. See written specifications for further requirements related to this detail.

SHRUB SLOPE PLANTING DETAIL
SCALE: NOT TO SCALE

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COMMONWEALTH OF VIRGINIA
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2020-06-01

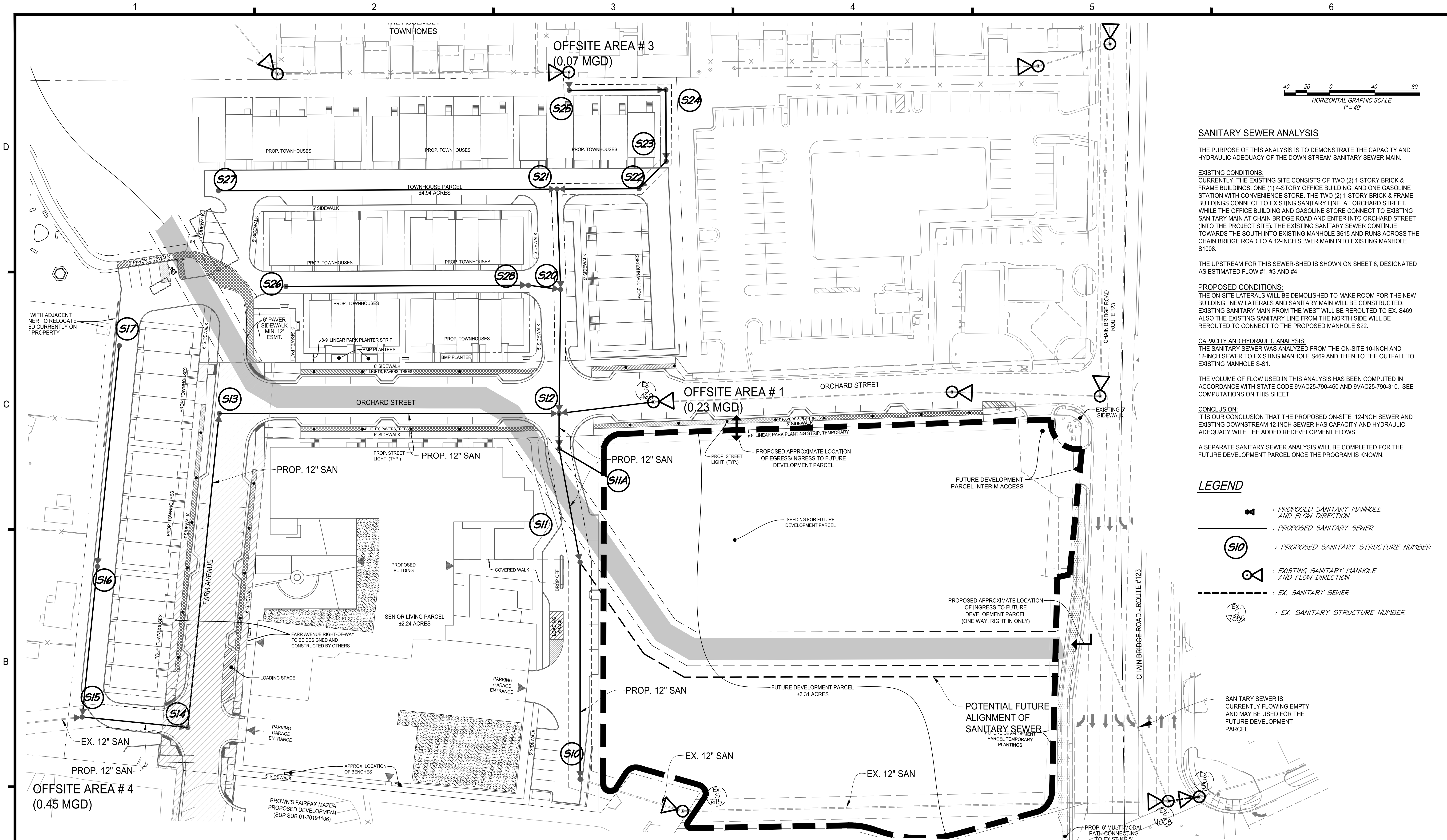
NORTHFAX WEST
MASTER DEVELOPMENT PLAN
CITY OF FAIRFAX, VIRGINIA

MARK	DATE	DESCRIPTION

PROJECT No.: 13139.005.00
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SHEET TITLE:
LANDSCAPE SPECS-DETAILS

SHEET No.
6B



SANITARY SEWER ANALYSIS

THE PURPOSE OF THIS ANALYSIS IS TO DEMONSTRATE THE CAPACITY AND HYDRAULIC ADEQUACY OF THE DOWN STREAM SANITARY SEWER MAIN.

EXISTING CONDITIONS:
CURRENTLY, THE EXISTING SITE CONSISTS OF TWO (2) 1-STORY BRICK & FRAME BUILDINGS, ONE (1) 4-STORY OFFICE BUILDING AND ONE GASOLINE STATION WITH CONVENIENCE STORE. THE TWO (2) 1-STORY BRICK & FRAME BUILDINGS CONNECT TO EXISTING SANITARY LINE AT ORCHARD STREET. WHILE THE OFFICE BUILDING AND GASOLINE STORE CONNECT TO EXISTING SANITARY MAIN AT CHAIN BRIDGE ROAD AND ENTER INTO ORCHARD STREET (INTO THE PROJECT SITE). THE EXISTING SANITARY SEWER CONTINUE TOWARDS THE SOUTH INTO EXISTING MANHOLE S615 AND RUNS ACROSS THE CHAIN BRIDGE ROAD TO A 12-INCH SEWER MAIN INTO EXISTING MANHOLE S1008.

THE UPSTREAM FOR THIS SEWER-SHED IS SHOWN ON SHEET 8, DESIGNATED AS ESTIMATED FLOW #1, #3 AND #4.

PROPOSED CONDITIONS:
THE ON-SITE LATERALS WILL BE DEMOLISHED TO MAKE ROOM FOR THE NEW BUILDING. NEW LATERALS AND SANITARY MAIN WILL BE CONSTRUCTED. EXISTING SANITARY MAIN FROM THE WEST WILL BE REROUTED TO EX. S469. ALSO THE EXISTING SANITARY LINE FROM THE NORTH SIDE WILL BE REROUTED TO CONNECT TO THE PROPOSED MANHOLE S22.

CAPACITY AND HYDRAULIC ANALYSIS:
THE SANITARY SEWER WAS ANALYZED FROM THE ON-SITE 10-INCH AND 12-INCH SEWER TO EXISTING MANHOLE S469 AND THEN TO THE OUTFALL TO EXISTING MANHOLE S-S1.

THE VOLUME OF FLOW USED IN THIS ANALYSIS HAS BEEN COMPUTED IN ACCORDANCE WITH STATE CODE 9VAC25-790-460 AND 9VAC25-790-310. SEE COMPUTATIONS ON THIS SHEET.

CONCLUSION:
IT IS OUR CONCLUSION THAT THE PROPOSED ON-SITE 12-INCH SEWER AND EXISTING DOWNSTREAM 12-INCH SEWER HAS CAPACITY AND HYDRAULIC ADEQUACY WITH THE ADDED REDEVELOPMENT FLOWS.

A SEPARATE SANITARY SEWER ANALYSIS WILL BE COMPLETED FOR THE FUTURE DEVELOPMENT PARCEL ONCE THE PROGRAM IS KNOWN.

LEGEND

- : PROPOSED SANITARY MANHOLE AND FLOW DIRECTION
- : PROPOSED SANITARY SEWER
- : PROPOSED SANITARY STRUCTURE NUMBER
- : EXISTING SANITARY MANHOLE AND FLOW DIRECTION
- : EX. SANITARY SEWER
- : EX. SANITARY STRUCTURE NUMBER

SANITARY SEWER IS CURRENTLY FLOWING EMPTY AND MAY BE USED FOR THE FUTURE DEVELOPMENT PARCEL.

CONTRIBUTING SEWAGE FLOW ESTIMATE:

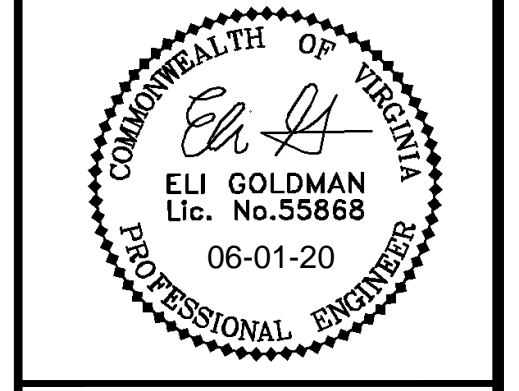
Discharge Facility	No. of Units	No. of People	No. of Dwellings	Average Flow for Dwellings (100 gpd/person)	No. of Beds	Average Flow per Bed (200 gpd/bed)	Ultimate Floor Space	Average Flow per 1000 sq ft (250 gpd/1,000sqft)	Total Incremental Flow (gpd)	Total Cumulative Flow (gpd)	Sanitary From	Sanitary To
Townhouses	15	5	75	7500				7,500	7,500	S15	S14	
Townhouses	41	5	205	20500				20,500	28,000	S12	S11	
Senior Living					200	40,000		40,200	68,200	S11	S10	
Future Development							114,000	28500	114,000	182,200	EX.S615	EX.S1008

SANITARY COMPUTATION:

TO	UPPER INV	LOWER INV	L (FT)	SLOPE (%)	DIA (IN)	MATERIAL	N	CAPACITY (cfs)	CAPACITY (MGD)	DESIGN FLOW (cfs)	DESIGN FLOW (MGD)	V (ft/s)	Assumptions	Inc (MGD)	Peak Flow Factor	Design Inc (MGD)
S15	349.36	348.79	110.02	0.52	12	PVC	0.013	3.27	2.11	0.70	0.450	3.1	PEAK FLOW FROM OFFSITE AREA #4 = 0.45 MGD	0.006	4.0	0.023
S14	349.26	348.32	94.00	1.00	12	PVC	0.013	3.20	2.07	0.73	0.473	3.1				
S13	348.22	346.72	279.62	0.54	12	PVC	0.013	3.20	2.07	0.73	0.473	3.1				
S12	346.62	345.12	300.39	0.50	12	PVC	0.013	2.71	1.75	0.73	0.473	3.1	PEAK FLOW FROM OFFSITE AREA #3 = 0.07 MGD	0.015	4.0	0.132
S11	342.60	342.35	31.20	0.80	12	PVC	0.013	3.43	2.22	0.93	0.604	4.1				
S11	342.25	341.50	102.40	0.73	12	PVC	0.013	3.27	2.11	0.93	0.604	3.8				
S10	341.40	339.69	192.60	0.89	12	PVC	0.011	3.61	2.33	1.48	0.955	4.6	PEAK FLOW FROM OFFSITE AREA #1 = 0.23 MGD	0.030	4.0	0.351
EX. S615	339.59	337.15	114.70	2.13	12	RCP	0.015	4.85	3.13	1.48	0.955	5.0				
EX. S1008	336.89	332.59	430.00	1.00	12	RCP	0.015	3.32	2.15	2.01	1.297	4.2				

ig sewage flow estimates on sheet 8.
shown are calculated per a partial flow analysis.
> 4.0 was used on all flows.
rt of EX. S1008 is an assumed elevation and will need to be surveyed.

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NORTHFAX WEST MASTER DEVELOPMENT PLAN
CITY OF FAIRFAX, VIRGINIA

MARK	DATE	DESCRIPTION

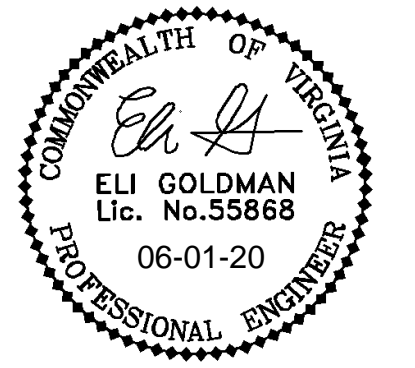
PROJECT No.: 13139.005.00
DRAWING No.: 109632
DATE: 11-21-2019
DESIGN: EG
DRAWN: JS
CHECKED: KMW

SANITARY SEWER ANALYSIS

SHEET No. **9**

ALL CONSTRUCTION SHALL CONFORM TO THE CURRENT FAIRFAX CITY AND VIRGINIA DEPARTMENT OF TRANSPORTATION STANDARDS AND SPECIFICATIONS

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**NORTHFAX WEST
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 CITY OF FAIRFAX, VIRGINIA

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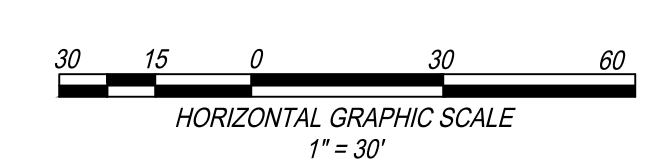
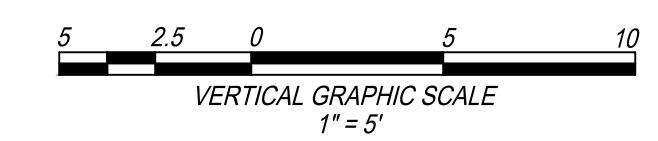
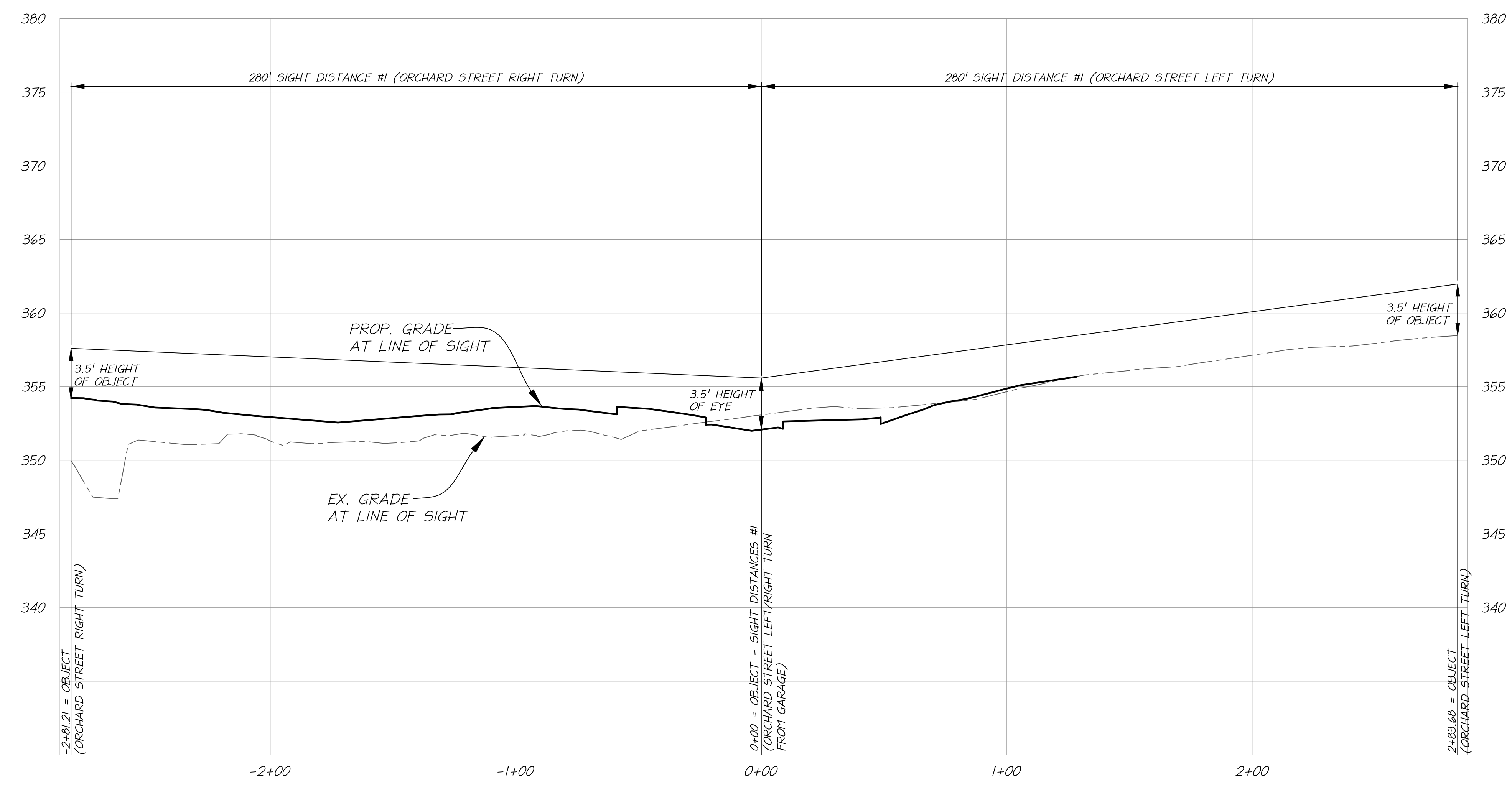
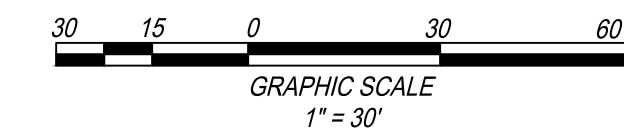
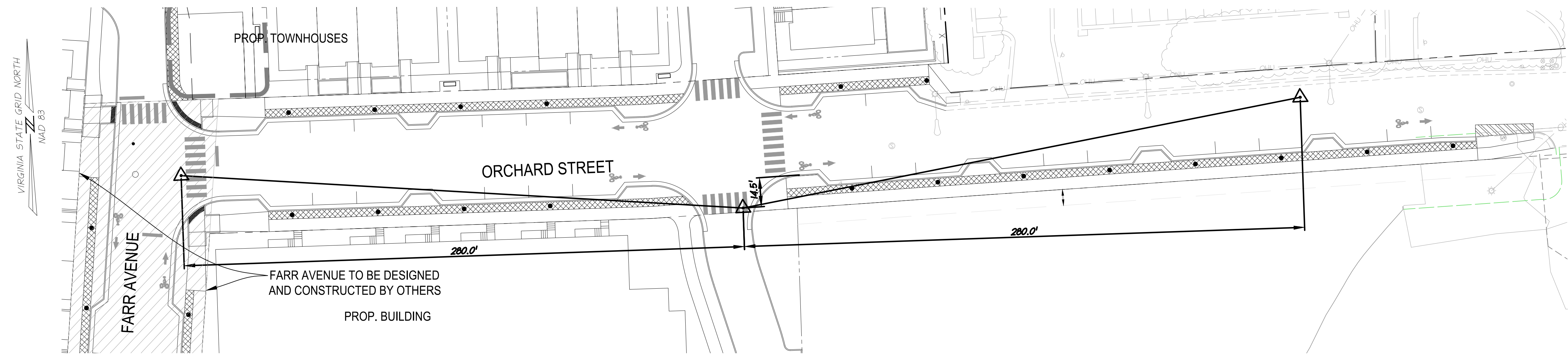
PROJECT No.: 13139.005.00
 DRAWING No.: 109632
 DATE: 11-21-2019
 DESIGN: EG
 DRAWN: JS
 CHECKED: KMW

SHEET TITLE:

SIGHT DISTANCE

SHEET No.
10

SCALE: SEE DWGS.



ORCHARD STREET SIGHT DISTANCE #1 (FROM PRIVATE STREET)
 POSTED SPEED: 25 MPH

VIRGINIA STATE GRID NORTH
NAD 83

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ELI GOLDMAN
Lic. No. 55868
06-01-20
PROFESSIONAL ENGINEER

**NORTHFAX WEST
MASTER DEVELOPMENT PLAN**
CITY OF FAIRFAX, VIRGINIA

MARK	DATE	DESCRIPTION

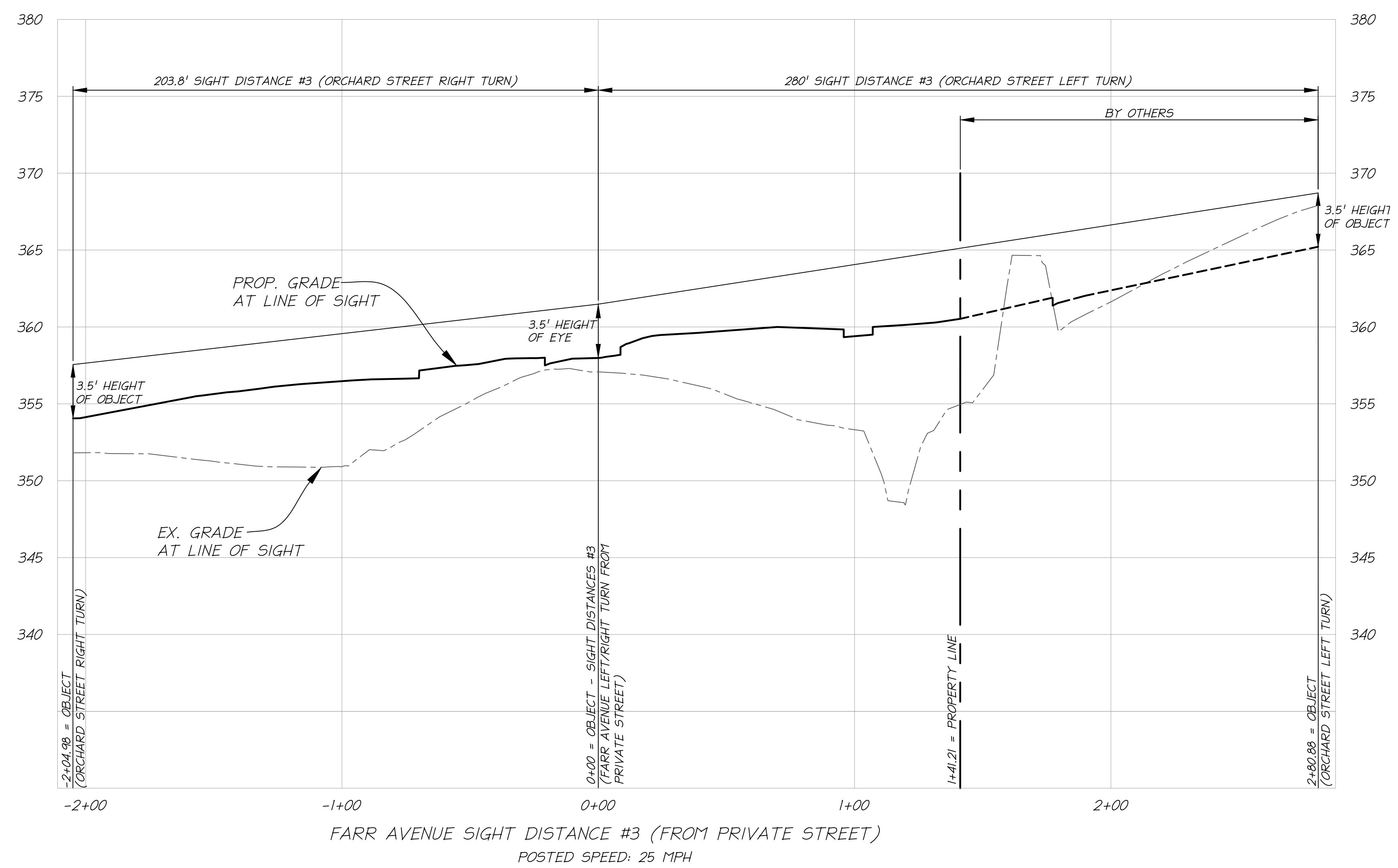
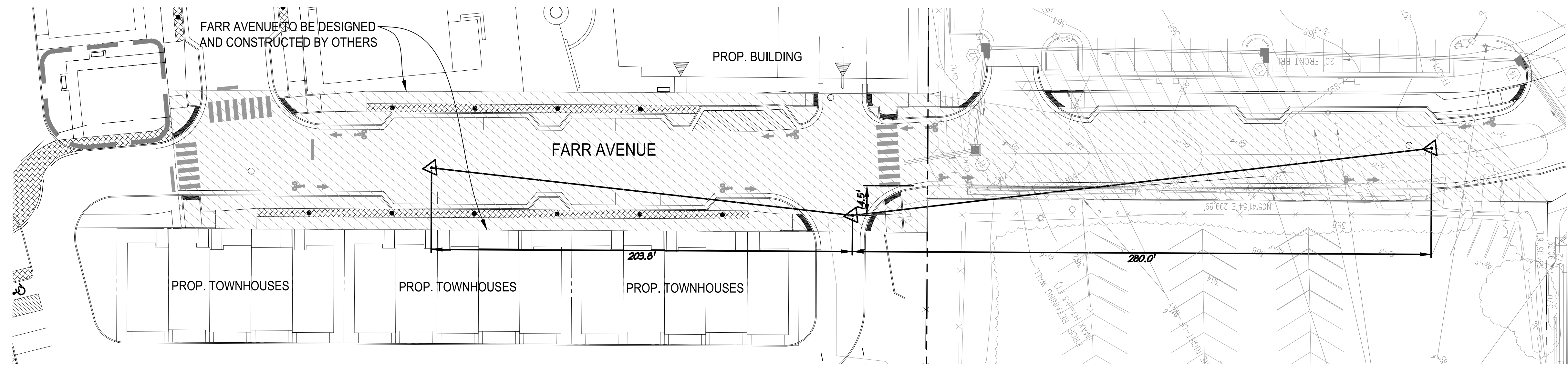
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DATE: 11-21-2019
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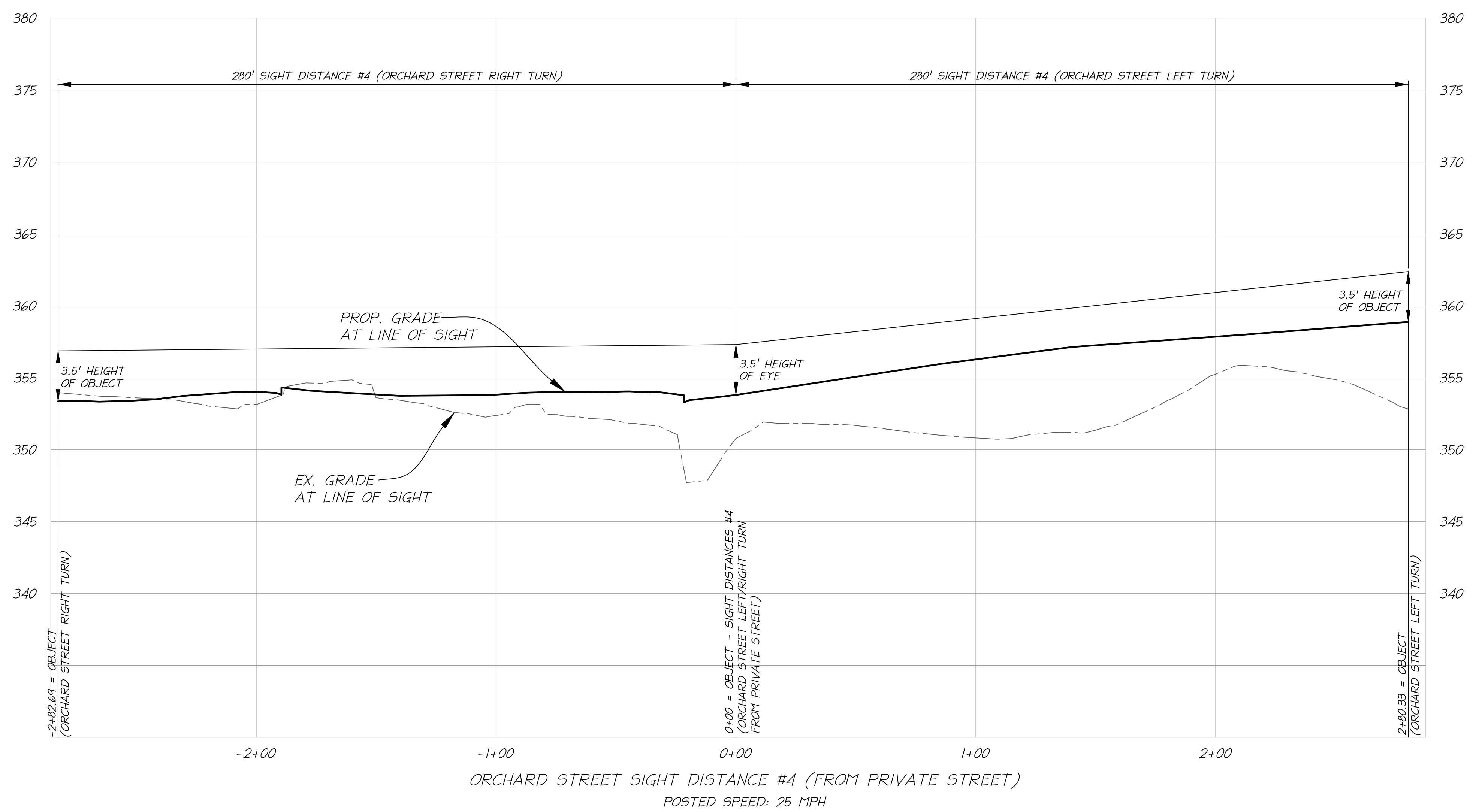
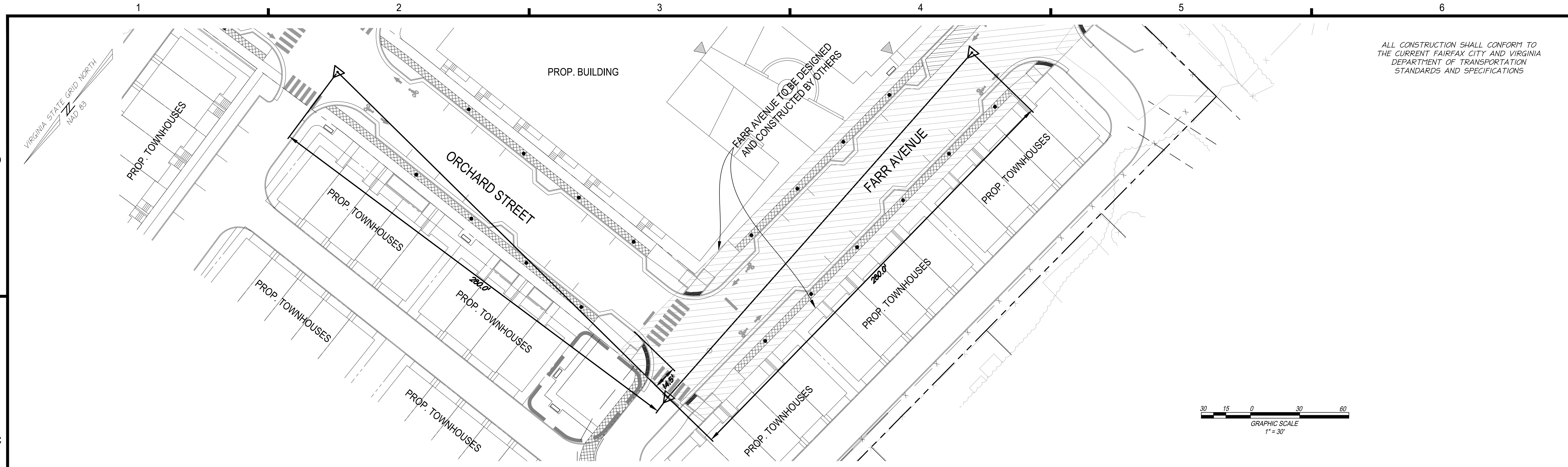
SHEET TITLE:

SIGHT DISTANCE

SHEET No.
11

SCALE: SEE DWGS.





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NORTHFAX WEST
MASTER DEVELOPMENT PLAN
CITY OF FAIRFAX, VIRGINIA

MARK	DATE	DESCRIPTION

PROJECT No.: 13139.005.00
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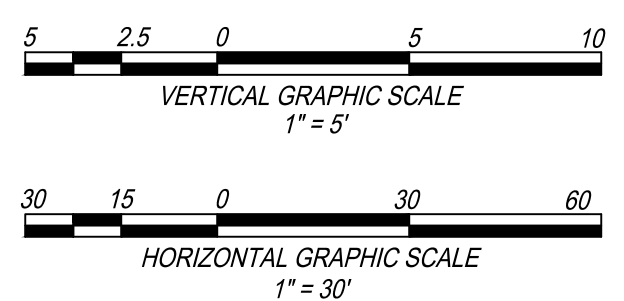
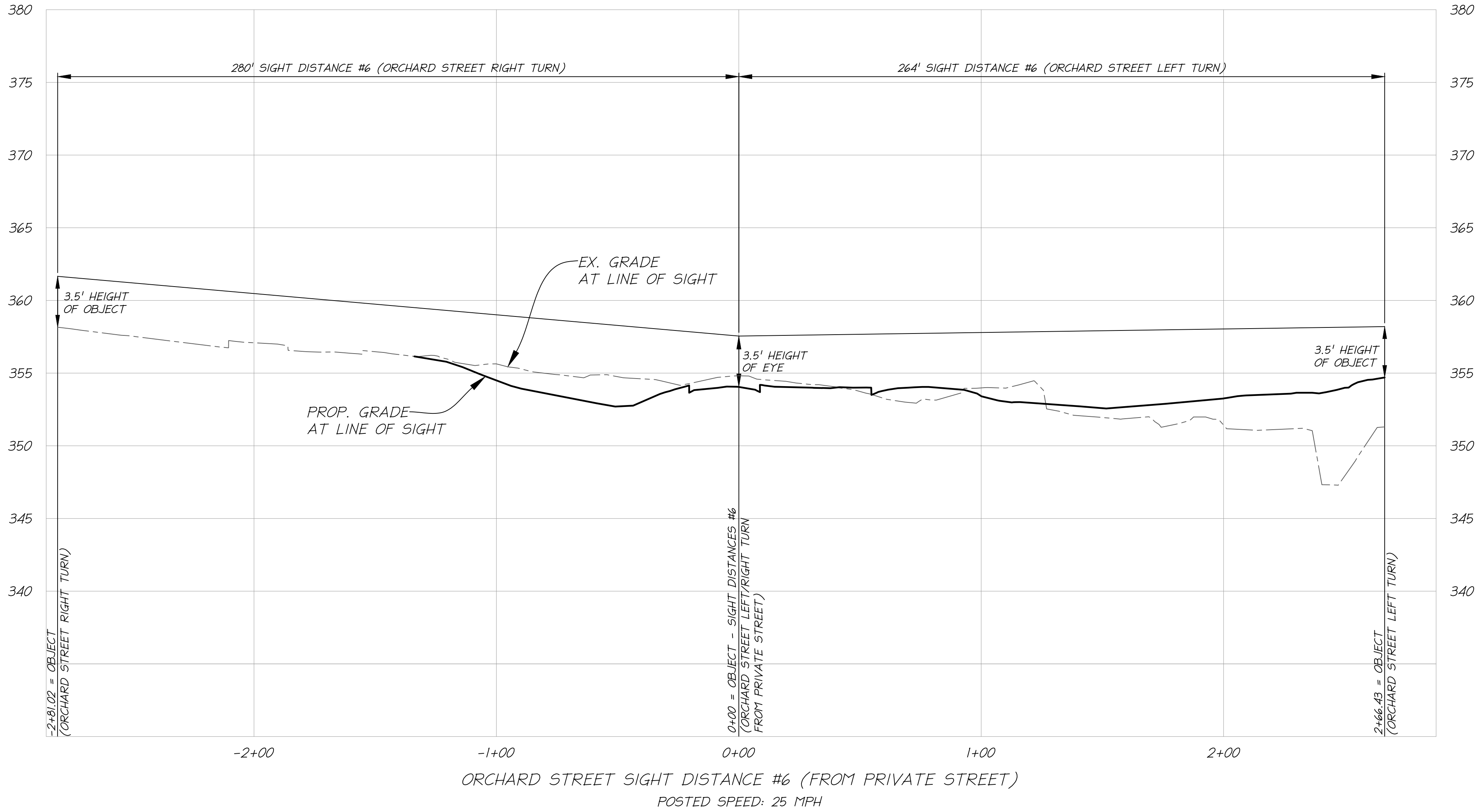
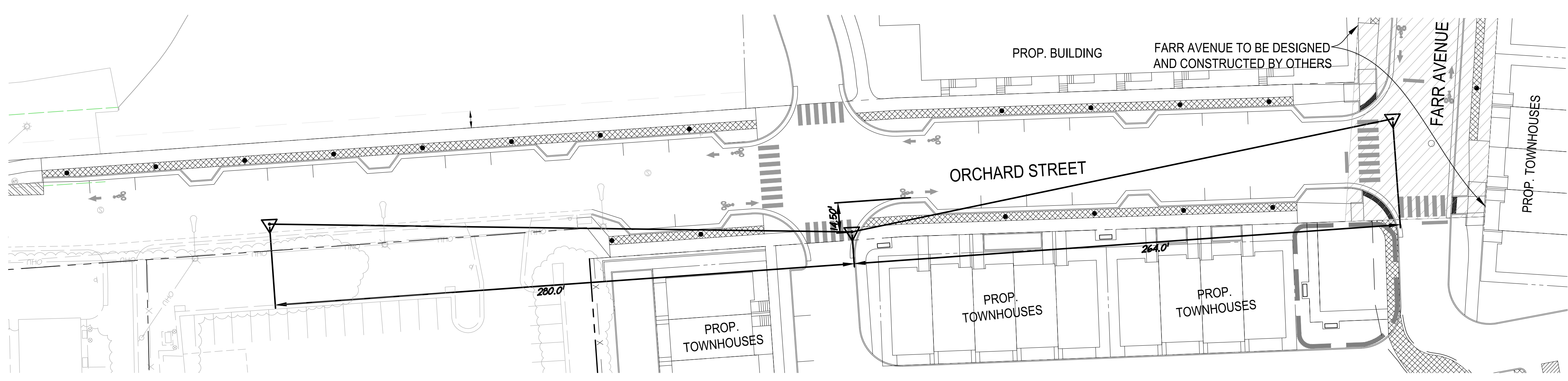
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SIGHT DISTANCE

SHEET No.
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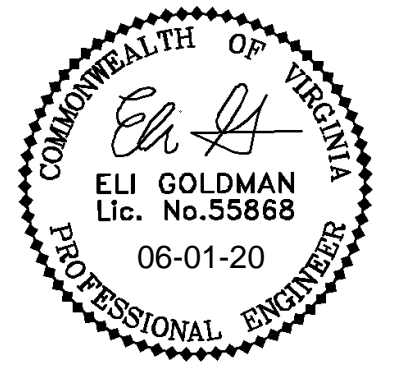
SCALE: SEE DWGS.

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VIRGINIA STATE GRID NORTH
MAD 83



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NORTHFAX WEST
MASTER DEVELOPMENT PLAN
CITY OF FAIRFAX, VIRGINIA

MARK	DATE	DESCRIPTION

PROJECT No.: 13139.005.00
DRAWING No.: 109632
DATE: 11-21-2019
DESIGN: EG
DRAWN: JS
CHECKED: KMW

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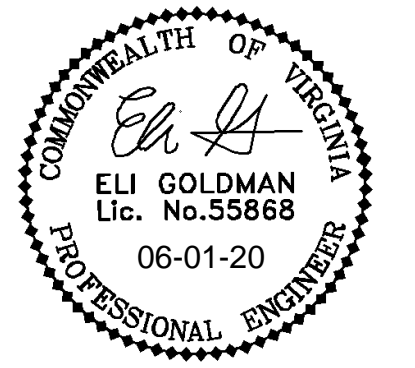
SIGHT DISTANCE

SHEET No.
13

SCALE: SEE DWGS.

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**NORTHFAX WEST
 MASTER DEVELOPMENT PLAN**
 CITY OF FAIRFAX, VIRGINIA

MARK	DATE	DESCRIPTION

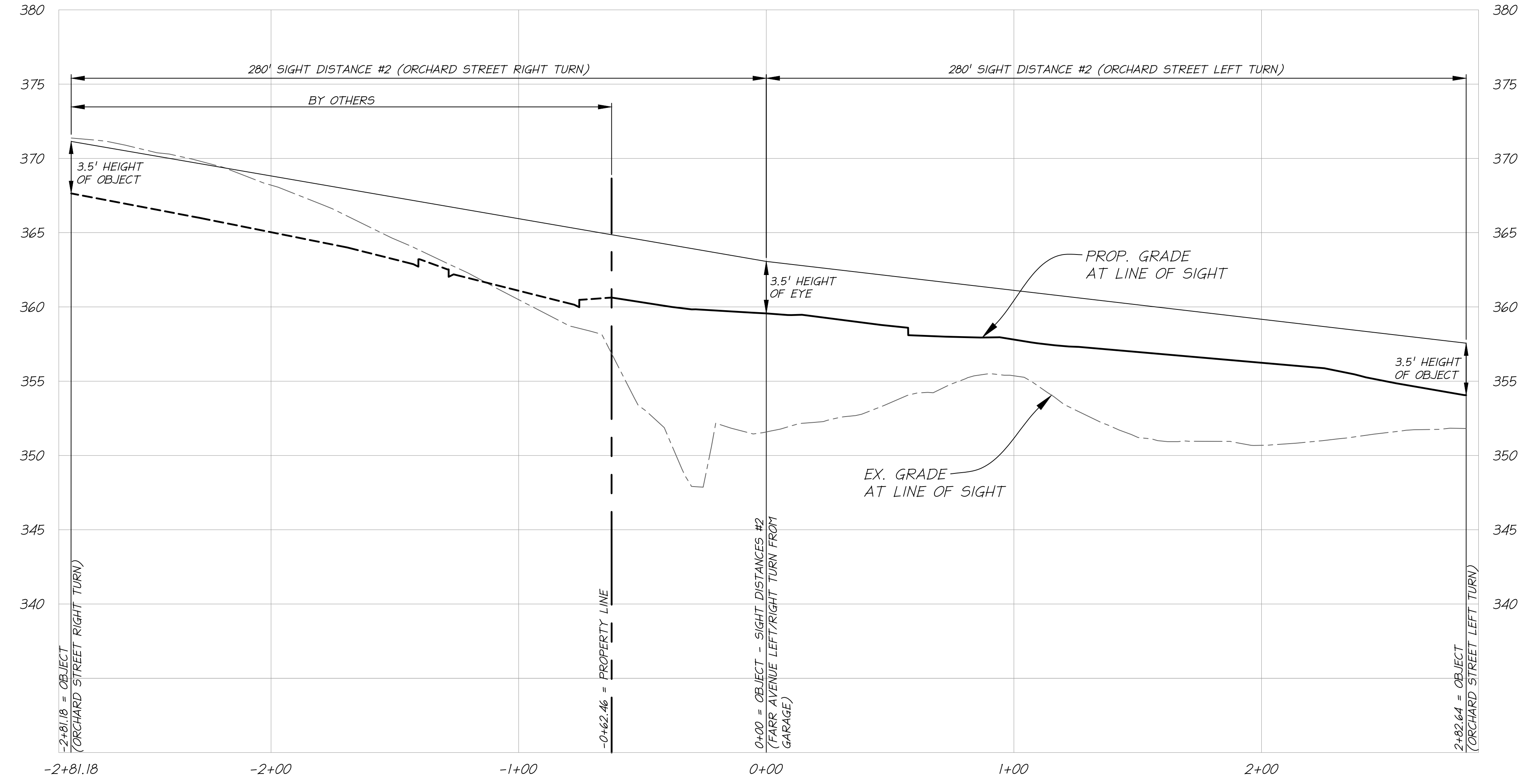
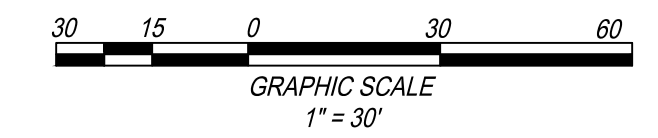
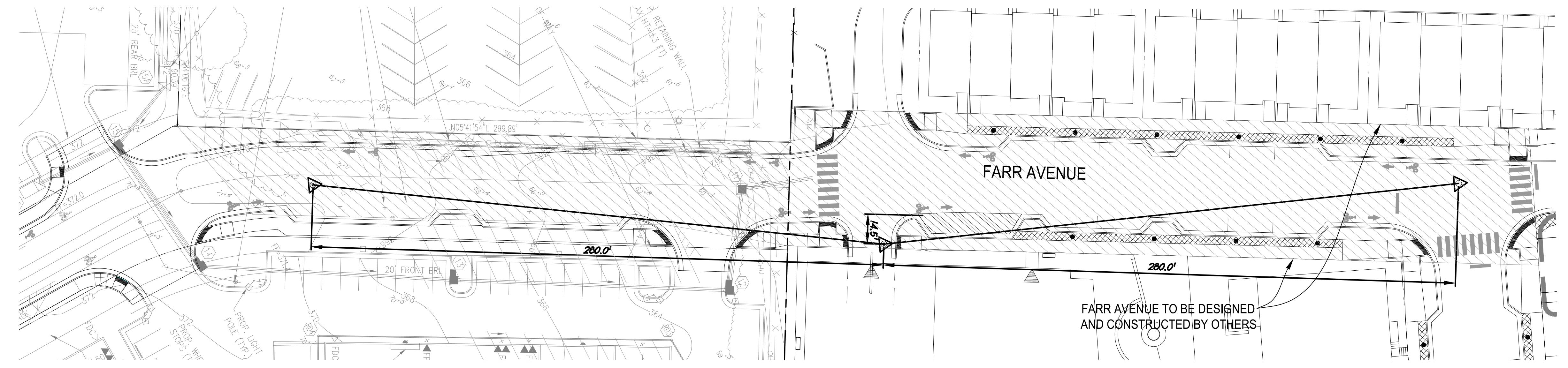
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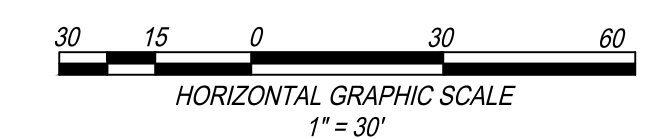
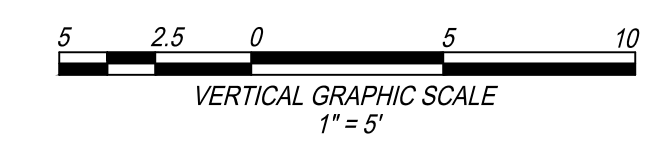
SIGHT DISTANCE

SHEET No.
14

SCALE: SEE DWGS.



FARR AVENUE SIGHT DISTANCE #2 (FROM GARAGE)
 POSTED SPEED: 25 MPH



1

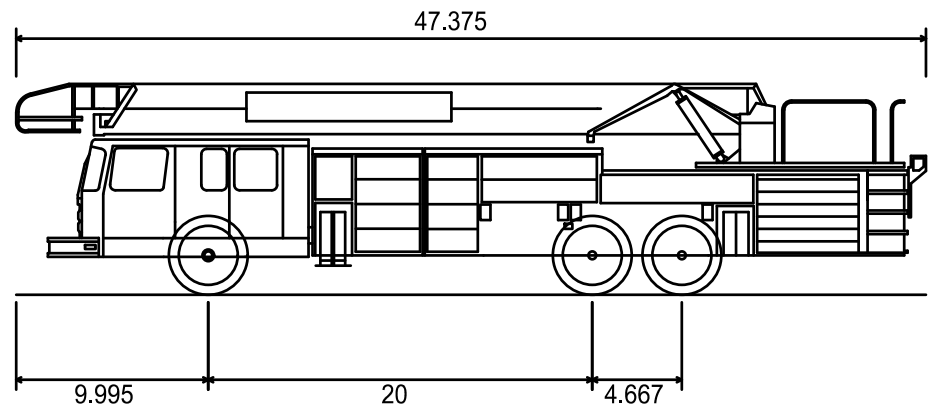
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3

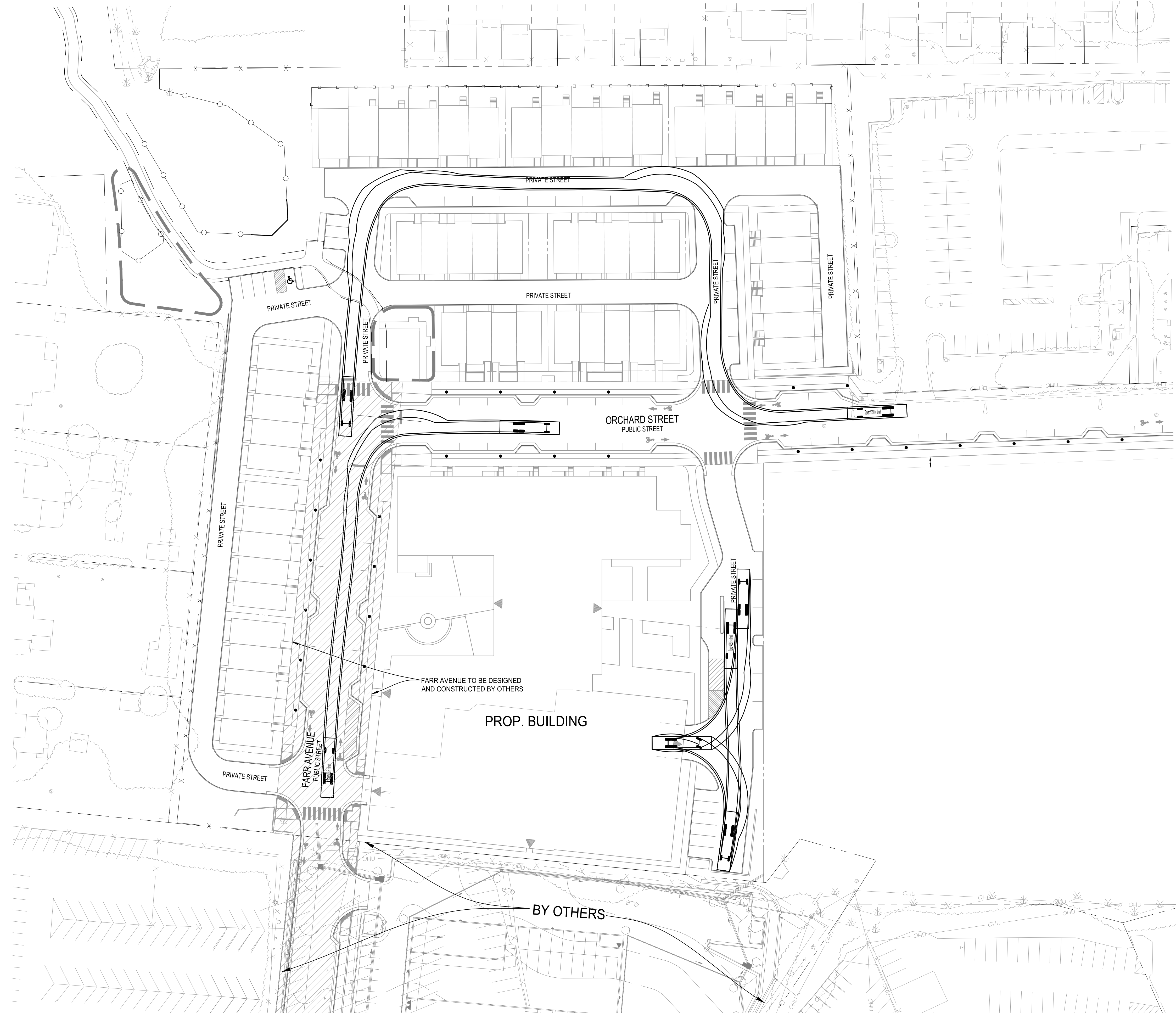
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5

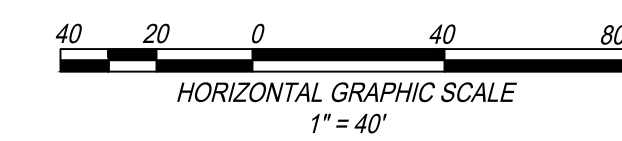
6



Copy of Tower 403 Fire Truck
 Overall Length 47.375ft
 Overall Width 10.083ft
 Overall Body Height 12.125ft
 Min Body Ground Clearance 1.512ft
 Track Width 7.667ft
 Lock-to-lock time 4.00s
 Wall to Wall Turning Radius 54.980ft



FIRE TRUCK TURNING MOVEMENTS
 SCALE: 1"=40'



ALL CONSTRUCTION SHALL CONFORM TO THE CURRENT FAIRFAX CITY AND VIRGINIA DEPARTMENT OF TRANSPORTATION STANDARDS AND SPECIFICATIONS

D

C

B

A

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NORTHFAX WEST MASTER DEVELOPMENT PLAN
 CITY OF FAIRFAX, VIRGINIA

MARK	DATE	DESCRIPTION

PROJECT No.: 13139.005.00
 DRAWING No.: 109632
 DATE: 11-21-2019
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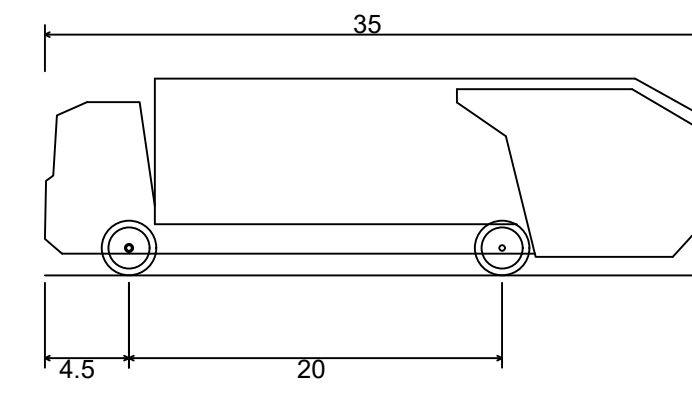
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TURNING MOVEMENTS

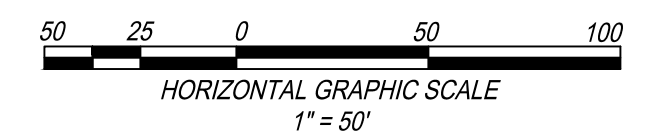
SHEET No. **15**



CITY TRASH TRUCK TURNING MOVEMENTS
SCALE: 1"=50'

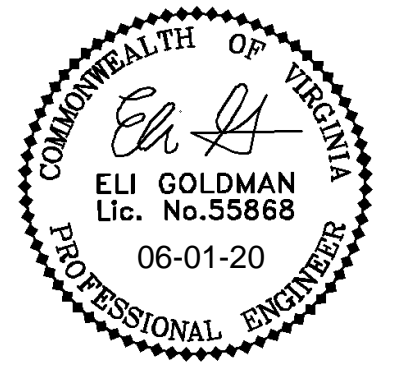


Rear-Load Garbage Truck
 Overall Length 35.000ft
 Overall Width 8.375ft
 Overall Body Height 10.546ft
 Min Body Ground Clearance 1.000ft
 Track Width 8.375ft
 Lock-to-lock time 6.00s
 Curb to Curb Turning Radius 29.300ft



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NORTHFAX WEST MASTER DEVELOPMENT PLAN
 CITY OF FAIRFAX, VIRGINIA

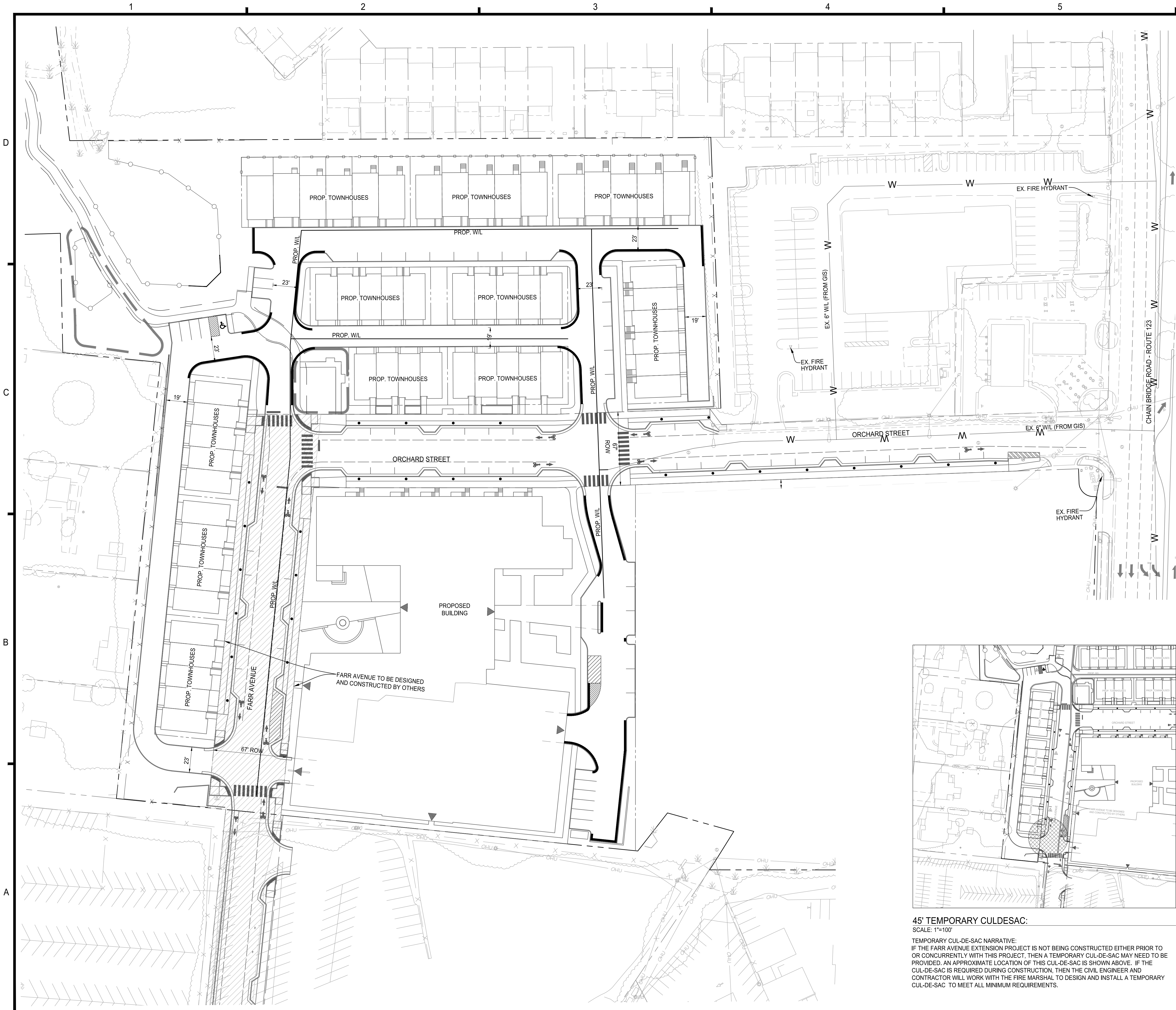
MARK	DATE	DESCRIPTION

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 DATE: 11-21-2019
 DESIGN: EG
 DRAWN: JS
 CHECKED: KMW

TURNING MOVEMENTS

SHEET No. **15A**

SCALE: 1"=40'



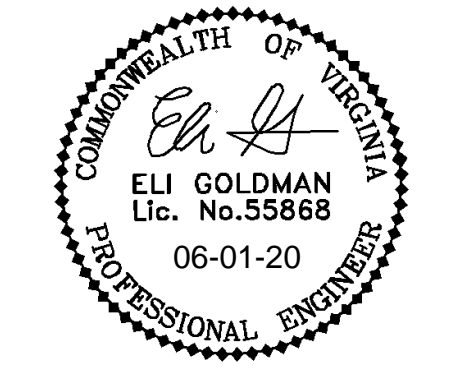
LEGEND

- - - - - : PROPOSED R.O.W.
- ▼ : BUILDING ENTRANCE
- FDC ↘ : PROPOSED FIRE DEPARTMENT CONNECTION
- : PROPOSED FIRE LANE
- : PROPOSED WATERLINE
- : EXISTING WATERLINE
- ⊕ : EXISTING FIRE HYDRANT

SENIOR LIVING BUILDING:
 BUILDING TYPE: 7 STORY
 OCCUPANCY TYPE: RESIDENTIAL R-2
 CONSTRUCTION TYPE: 1-B
 SPRINKLER TYPE: FULLY SPRINKLED, NFPA 13
 BUILDING AREA: 230,000 SF
 BUILDING HEIGHT: REFER TO ARCHITECTURAL EXTERIOR ELEVATIONS

TOWNHOUSE:
 BUILDING TYPE: TOWNHOUSE
 OCCUPANCY TYPE: RESIDENTIAL R-3
 CONSTRUCTION TYPE: 5-B
 SPRINKLER TYPE: NFPA 13R
 BUILDING HEIGHT: REFER TO ARCHITECTURAL EXTERIOR ELEVATIONS

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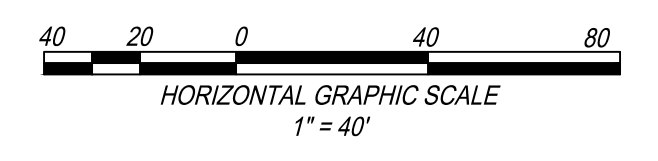


**NORTHFAX WEST
 MASTER DEVELOPMENT PLAN
 CITY OF FAIRFAX, VIRGINIA**



45' TEMPORARY CULDESAC:
 SCALE: 1"=100'
 TEMPORARY CUL-DE-SAC NARRATIVE:
 IF THE FARR AVENUE EXTENSION PROJECT IS NOT BEING CONSTRUCTED EITHER PRIOR TO OR CONCURRENTLY WITH THIS PROJECT, THEN A TEMPORARY CUL-DE-SAC MAY NEED TO BE PROVIDED. AN APPROXIMATE LOCATION OF THIS CUL-DE-SAC IS SHOWN ABOVE. IF THE CUL-DE-SAC IS REQUIRED DURING CONSTRUCTION, THEN THE CIVIL ENGINEER AND CONTRACTOR WILL WORK WITH THE FIRE MARSHAL TO DESIGN AND INSTALL A TEMPORARY CUL-DE-SAC TO MEET ALL MINIMUM REQUIREMENTS.

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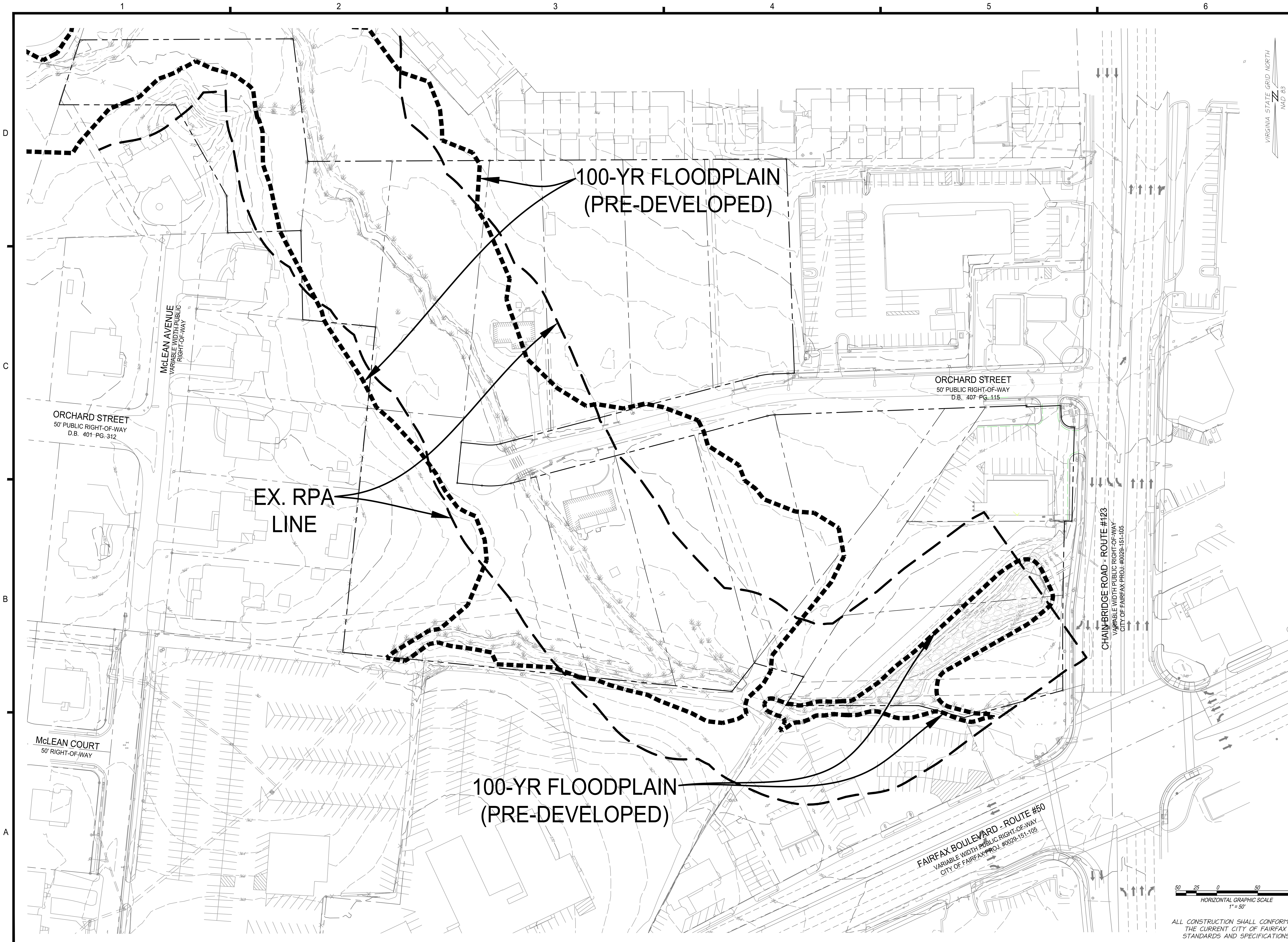


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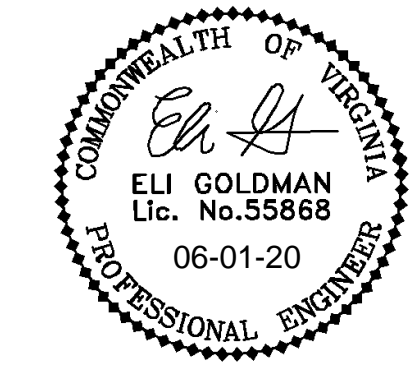
FIRE SERVICE PLAN

SHEET No. **16**



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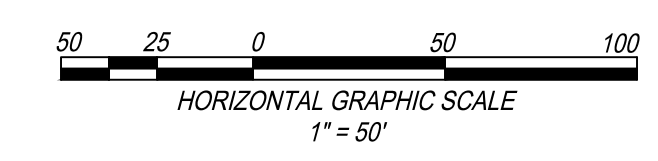
**NORTHFAX WEST
 MASTER DEVELOPMENT PLAN**
 CITY OF FAIRFAX, VIRGINIA

MARK	DATE	DESCRIPTION

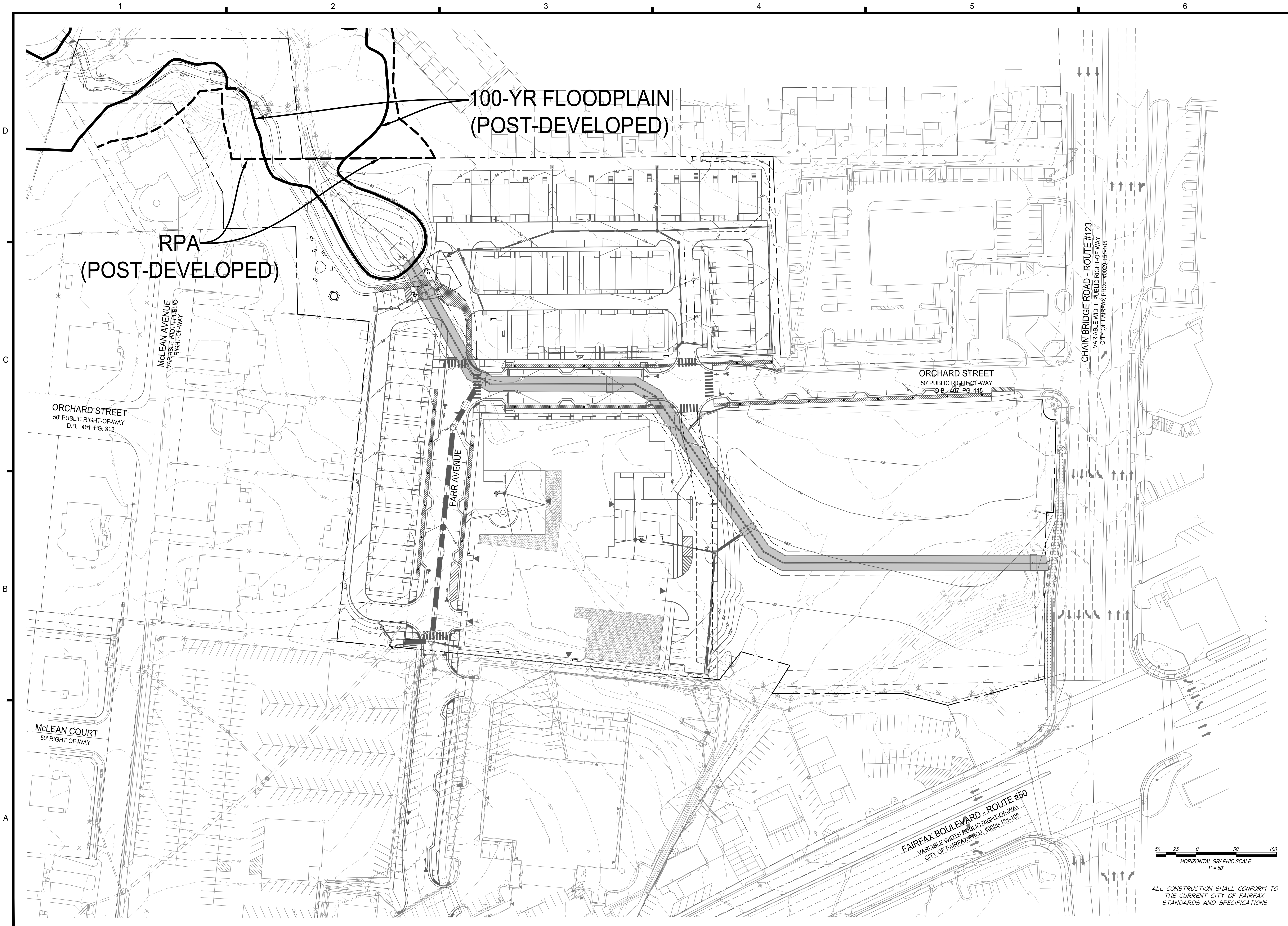
PROJECT No.: 13139.005.00
 DRAWING No.: 109632
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 DESIGN: EG
 DRAWN: JS
 CHECKED: KMW

**FLOODPLAIN AND
 RPA
 (PRE-DEVELOPED)**

SHEET No. **17**



ALL CONSTRUCTION SHALL CONFORM TO THE CURRENT CITY OF FAIRFAX STANDARDS AND SPECIFICATIONS



100-YR FLOODPLAIN
(POST-DEVELOPED)

RPA
(POST-DEVELOPED)

ORCHARD STREET
50' PUBLIC RIGHT-OF-WAY
D.B. 401-PG. 312

McLEAN AVENUE
VARIABLE WIDTH PUBLIC
RIGHT-OF-WAY

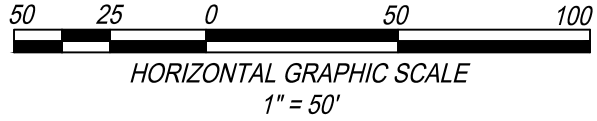
FARR AVENUE

ORCHARD STREET
50' PUBLIC RIGHT-OF-WAY
D.B. 407-PG. 115

CHAIN BRIDGE ROAD - ROUTE #123
VARIABLE WIDTH PUBLIC RIGHT-OF-WAY
CITY OF FAIRFAX PROJ. #0029-151-105

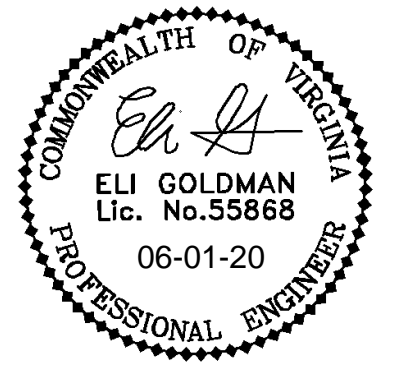
McLEAN COURT
50' RIGHT-OF-WAY

FAIRFAX BOULEVARD - ROUTE #50
VARIABLE WIDTH PUBLIC RIGHT-OF-WAY
CITY OF FAIRFAX PROJ. #0029-151-105



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THE CURRENT CITY OF FAIRFAX
STANDARDS AND SPECIFICATIONS

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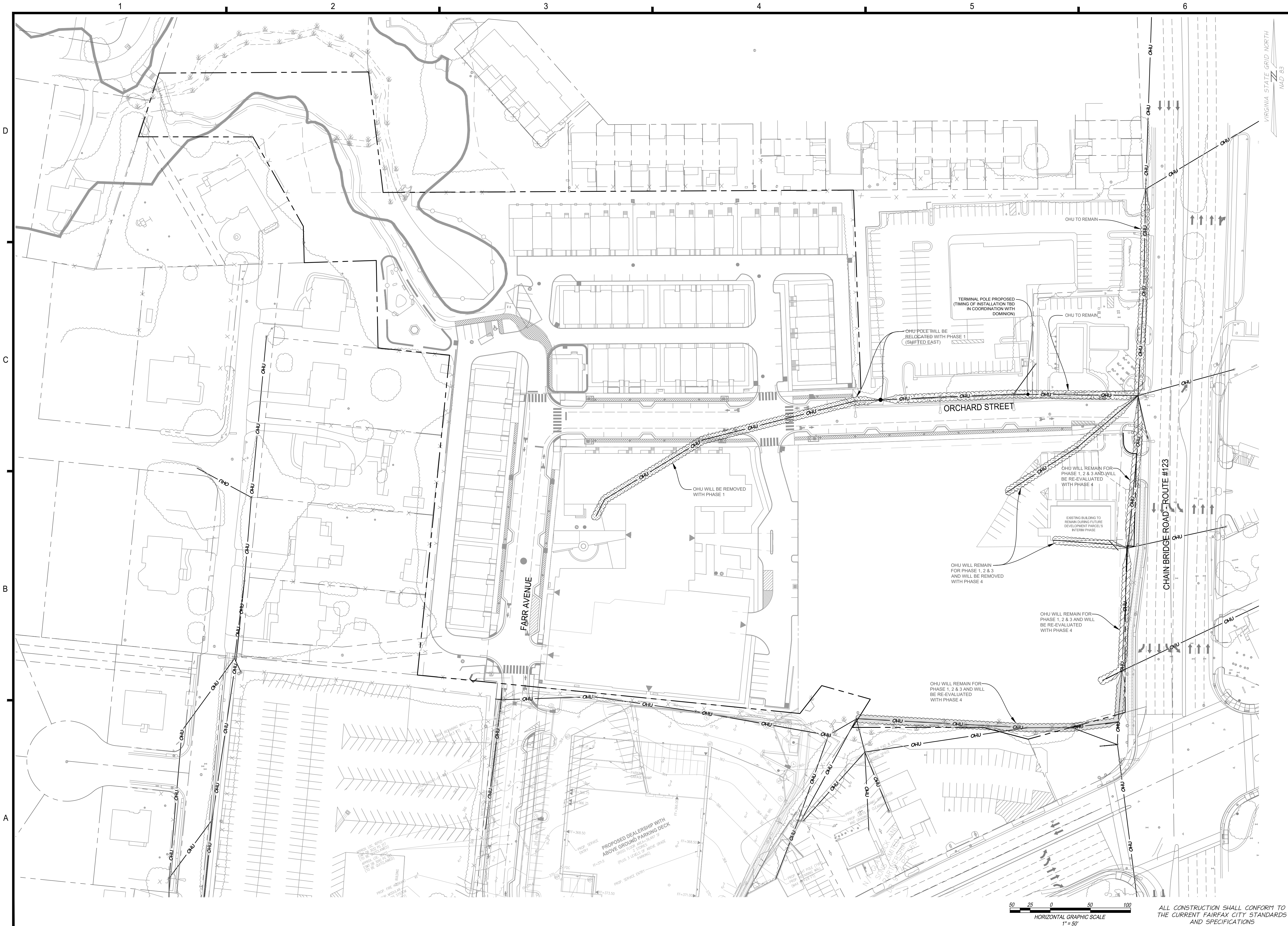
**NORTHFAX WEST
MASTER DEVELOPMENT PLAN**
CITY OF FAIRFAX, VIRGINIA

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PROJECT No.: 13139.005.00
DRAWING No.: 109632
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DRAWN: JS
CHECKED: KMW

SHEET TITLE:
**FOODPLAIN AND
RPA
(POST-DEVELOPED)**

SHEET No.
18



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 E. J. GOLDMAN
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 06-01-20
 PROFESSIONAL ENGINEER

**NORTHFAX WEST
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 CHECKED: KMW

SHEET TITLE:
OVERHEAD UTILITY EXHIBIT

SHEET No. **19**