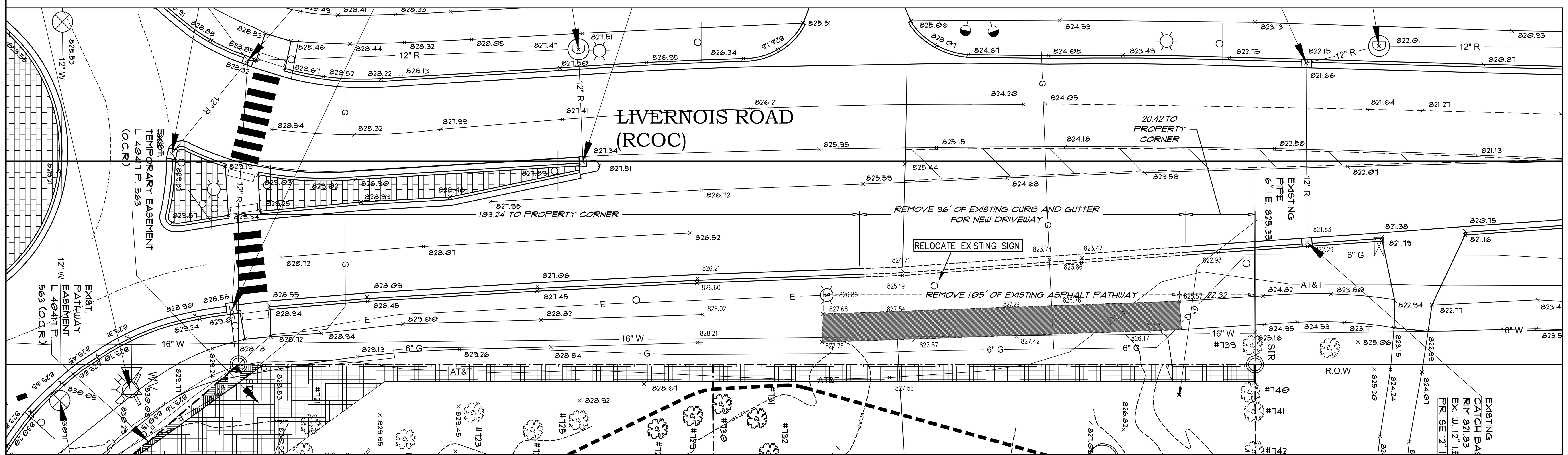
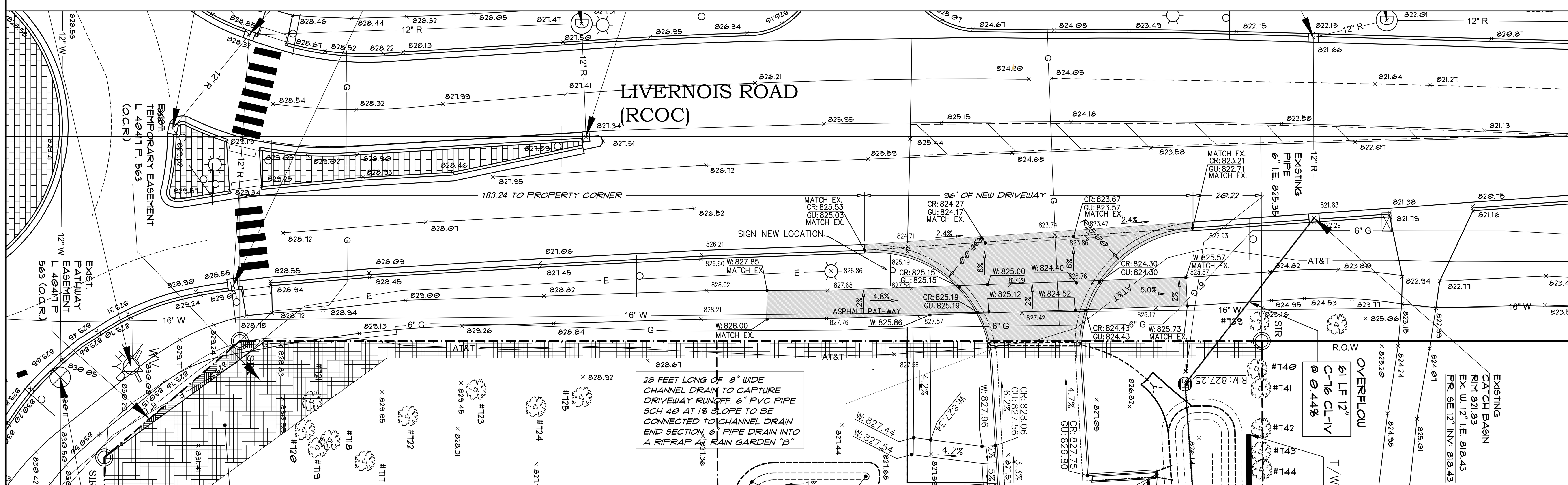


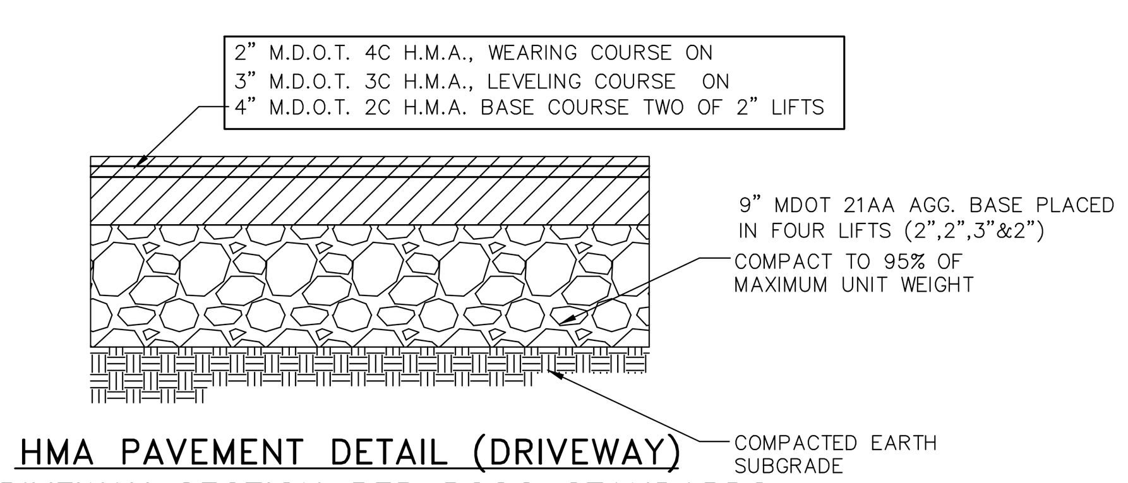
DRIVEWAY EXISTING / REMOVAL PLAN

SCALE 1" = 20'-0"



DRIVEWAY CONSTRUCTION PLAN

SCALE 1" = 20'-0"



HMA PAVEMENT DETAIL (DRIVEWAY)

DRIVEWAY SECTION PER RCOC STANDARDS

NOTE:

NO PARKING OR STORAGE OF MATERIAL OR EQUIPMENT WILL BE ALLOWED WITHIN THE R.C.O.C. RIGHT-OF-WAY.

PERMITS TO PERFORM WATER/SANITARY/STORM SEWER TAPS SHALL BE OBTAINED BY THE APPLICANT FROM THE APPROPRIATE GOVERNING AGENCIES.

PLACE TRENCH BACKFILL IN ACCORDANCE WITH M.DOT STANDARDS

SAW-CUT THE EXISTING ASPHALT SHOULDERS FULL DEPTH AND REMOVE THEM PRIOR TO PLACING THE DRIVE APPROACH OR AS DIRECTED BY ENGINEER.

A BITUMINOUS BUTT-JOINT WITH A MINIMUM WIDTH OF TWO (2) FEET, SHALL BE PLACED AS DIRECTED BY THE FIELD INSPECTOR.

A SAFE AND ADEQUATE TRAVEL ROUTE FOR PEDESTRIANS SHALL BE MAINTAINED AT ALL TIMES. PEDESTRIANS SHALL NOT BE DETOURED INTO THE EXISTING ROADWAY.

ALL TRAFFIC CONTROL DEVICES USED ON THIS PERMIT SHALL MEET THE REQUIREMENTS OF THE AMERICAN TRAFFIC SAFETY ASSOCIATION'S (ATSSA) "QUALITY STANDARDS FOR WORK ZONE TRAFFIC CONTROL DEVICES-2012 TRAFFIC CONTROL DEVICES ARE INCLUSIVE OF SIGNS, CHANGEABLE MESSAGE SIGNS, CONES, TUBULAR MARKERS, PAVEMENT TAPE, PAINT AND PAVEMENT MARKERS.

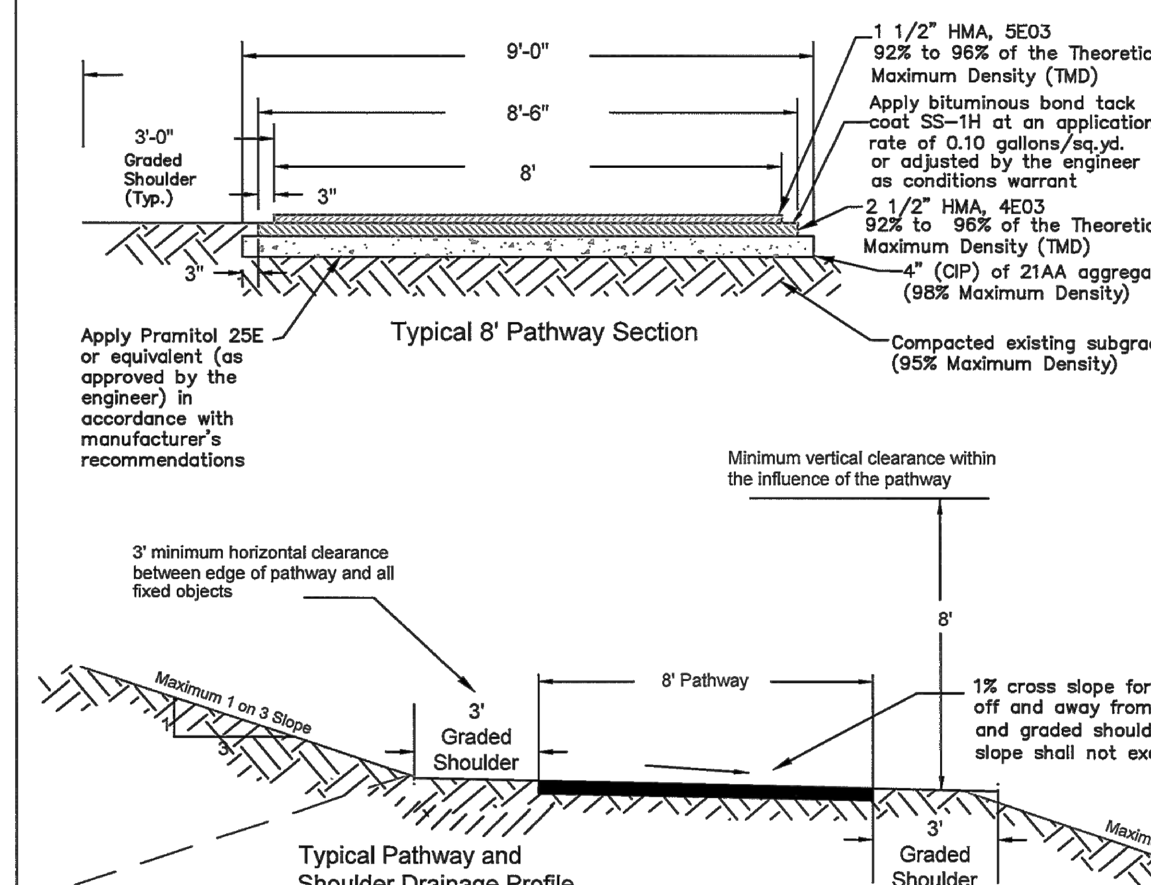
NOTE TO GENERAL CONTRACTOR:
GAS MAIN AND ELECTRIC CONNECTION SHALL BE DONE BY THE RESPECTED UTILITY COMPANY. THESE WILL NOT BE INCLUDED IN THE RCOC PERMIT.

NOTE TO GENERAL CONTRACTOR:
GAS COMPANY TRENCH DETAILS SHOULD BE APPROVED BY MDOT SITE ENGINEER PRIOR TO INSTALLING THE PROPOSED 6" GAS-MAIN WITHIN RCOC R.O.W.

NOTE TO GAS COMPANY/CONTRACTOR:
RESTORE LIVERNOIS ROAD RIGHT OF WAY WORKING AREA TO ITS ORIGINAL CONDITION OR AS DIRECTED BY MDOT ENGINEER. SEE RESTORATION NOTES ON SAME SHEET.

- CONSTRUCT DRIVEWAY AS PER R.C.O.C. STANDARDS
- CONSTRUCT 8' WIDE ASPHALT PATHWAY AND THICKENED PATHWAY WITHIN DRIVEWAY AS PER R.C.O.C. AND CITY OR ROCHESTER HILLS ENGINEERING STANDARDS (REFER TO PROVIDED PAVEMENT SECTIONS)
- PATHWAY TRANSVERSE SLOPE MUST BE 2% OR LESS TOWARD STREET.

Standard Details:



Standard Notes:

1. Maximum grade of 8.33% along pathway. (less than 5% is recommended.)
2. 1% cross slope (i.e., super elevation) for drainage off and away from pathway and graded shoulders. (2% maximum cross-slope.)
3. 60' minimum center line radii for pathway horizontal alignment.
4. Provide a minimum of 3' horizontal clearance and 8' vertical clearance from all fixed objects and the edge of pathway surface. relocation of existing objects (i.e. mail boxes, signs, etc.), shall be considered incidental work items.
5. Pathway ramps shall be constructed in accordance with MDOT standard detail R-28G and shall have a minimum clear opening of 8' wide.
6. A clean saw cut joint shall be provided wherever new pavement matches existing pavement (incidental work item).
7. Utility structures shall be adjusted in accordance with the city of Rochester Hills standards and shall match the proposed grade of the pathway.
7. Pathway shall be 6 inch thick HMA or concrete through residential drives and 9 inch thick HMA or 8 inch concrete through commercial drives.
8. Pathway asphalt shall be paid for as "Share Use Path, HMA" when part of public improvement project.

ROCHESTER HILLS MICHIGAN	Hot-Mixed Asphalt Pathway Construction, Extensions and Relocations - Standard Notes and Details		
	DRAWN BY: b. s.	City of Rochester Hills	
	SCALE: NOT TO SCALE	DATE: 07/29/13	SHEET: 1 OF 1

I:\Eng\DWG\DETAILS\PATHWAY\HMA Pthwy Const-Ext-Reloc-Std Nts & Detls.dwg

CITY FILE NO. 17-020

ENGINEERING SERVICES, INC.
CONSULTING ENGINEERS
32232 SCHOOLCRAFT ROAD
TAYLOR, MICHIGAN 48150
Ph # (734) 525-7330
FAX # (734) 525-7255
CIVIL, ARCHITECTURE
ENVIRONMENTAL, GEOTECH, SURVEYING.

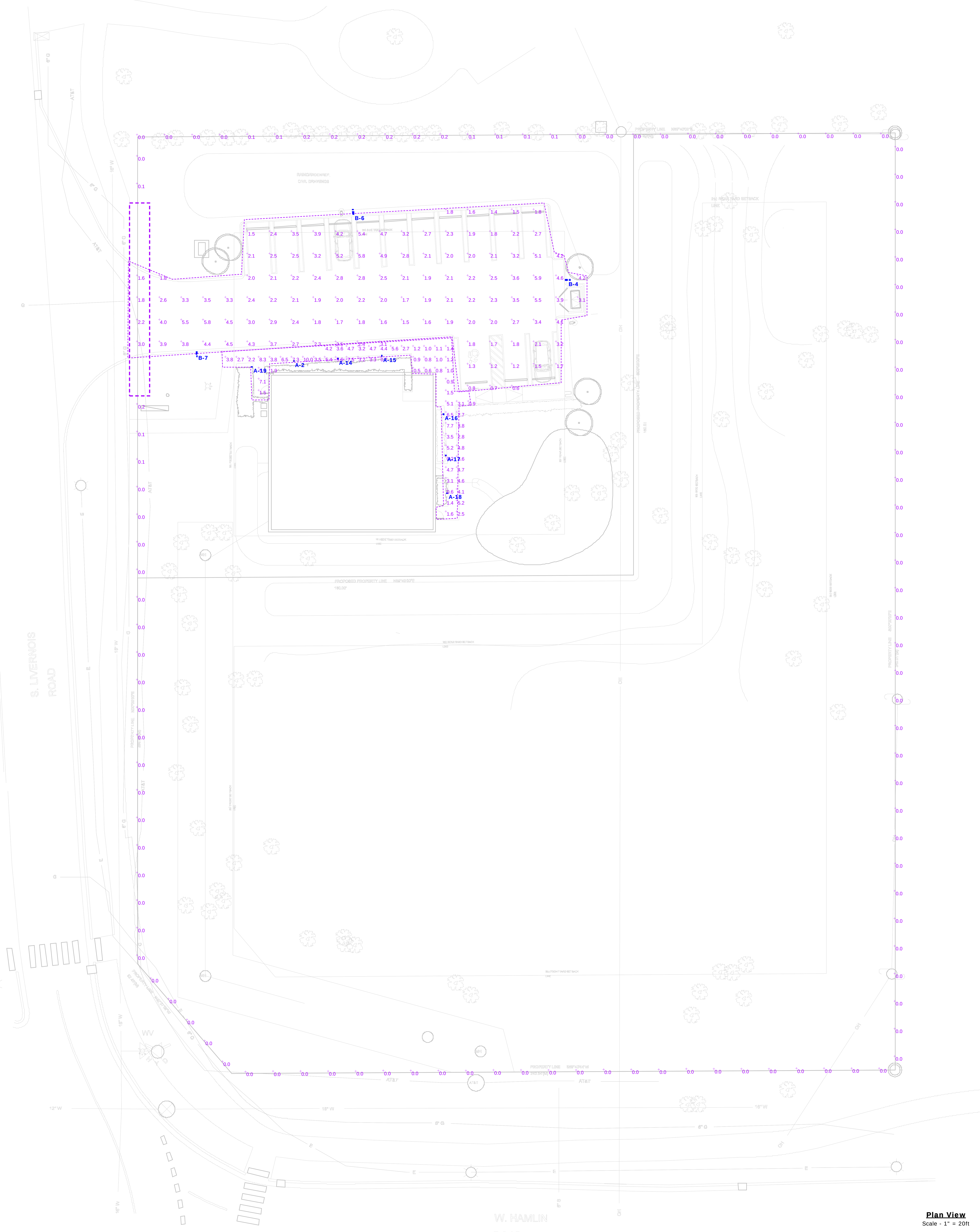
TITLE **OAKRIDGE DENTAL**
WEST HAMLIN & SOUTH LIVERNOIS, ROCHESTER HILLS, MI 48307

PROJ. NO.	SCALE 1" = 20'	DESIGNED BY G. KHALAF, P.E.
		APPROVED BY H SHAKIR, P.E.
DATE 08/18/17	DRAWING NO. C-06	

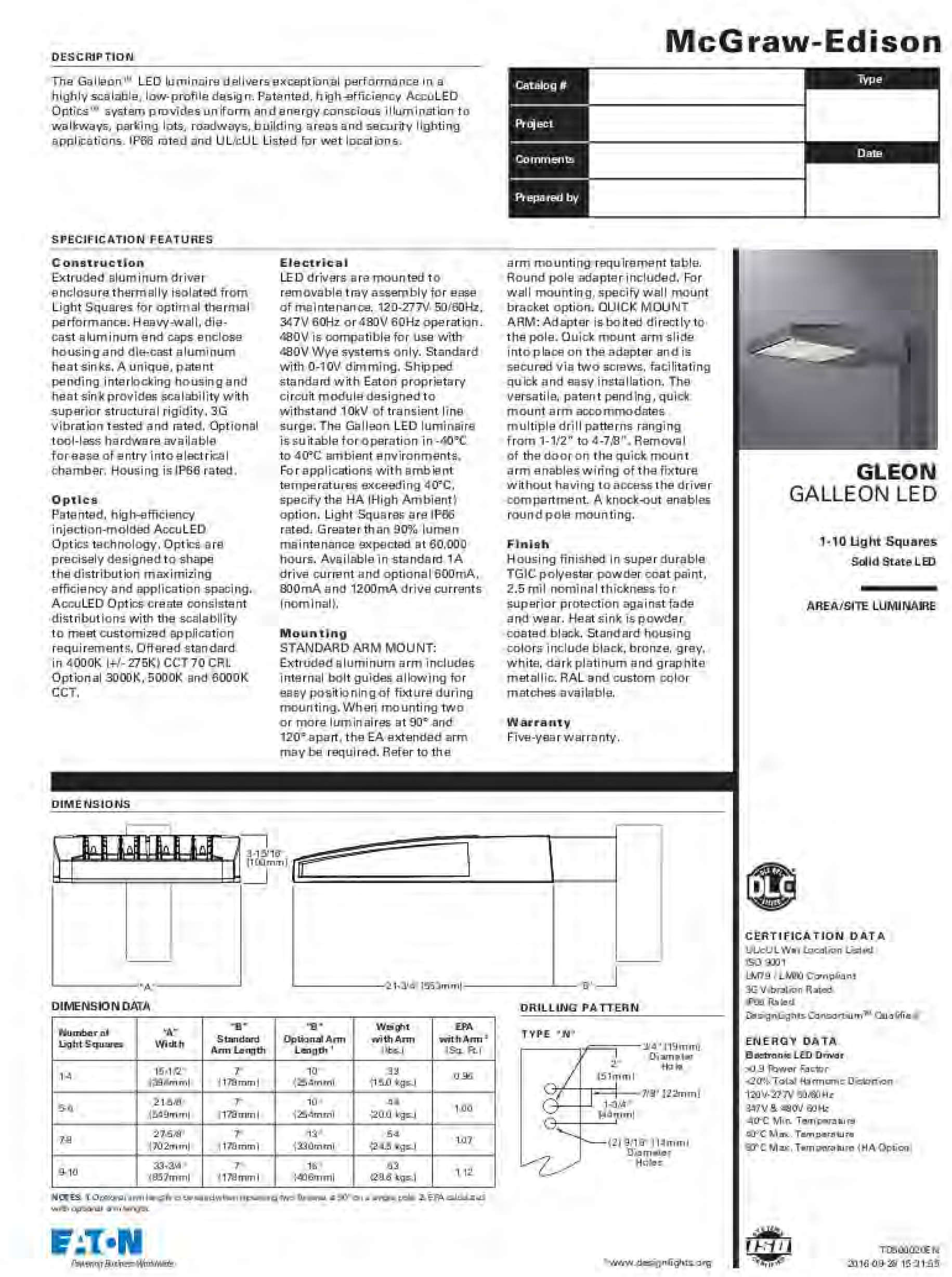
DRIVEWAY AS PER OAKLAND COUNTY ROAD COMMISSION

REVISIONS

SYM	DATE	
02	07/03/17	REVISED PER CITY'S COMMENTS ON 06/28/2017
02	07/30/17	ENGINEERING SUBMITTAL
02	08/19/17	DRIVEWAY ENGINEERING SUBMITTAL
03	02/28/18	REVISED PER COMMENTS ON 02/21/18



Plan View
Scale - 1" = 20ft



Statistics

Description	Symbol	Min	Max/Min	Max	Avg/Min	Avg
Parking and Drive	+	0.6 fc	9.8:1	5.9 fc	4.5:1	2.7 fc
Property Line	+	0.0 fc	N/A	0.2 fc	N/A	0.0 fc
Side Walk	+	0.2 fc	50.0:1	10.0 fc	17.0:1	3.4 fc

Luminaire Locations

No.	Label	MH	Tilt
2	A	3.35	0.00
14	A	3.35	0.00
15	A	3.35	0.00
16	A	3.35	0.00
17	A	3.35	0.00
18	A	3.35	0.00
19	A	3.35	0.00
4	B	15.00	0.00
6	B	15.00	0.00
7	B	15.00	0.00

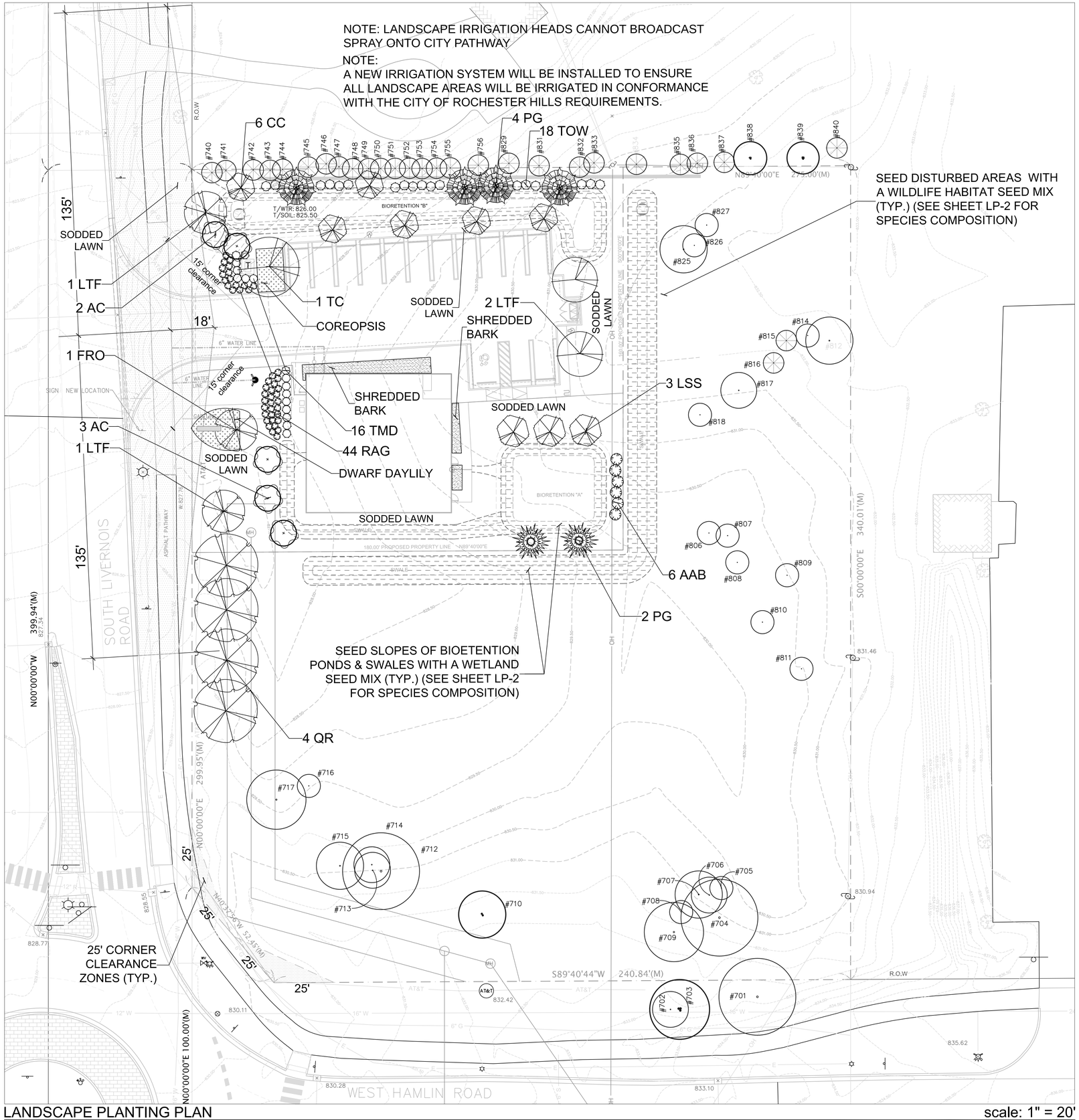
Schedule

Symbol	Label	Quantity	Manufacturer	Catalog Number	Description	Number Lamps	Light Loss Factor	Wattage
	A	7	BEGA-US	88 659	CAST ALUMINUM HOUSING, FORMED SEMI-SPECULAR ALUMINUM REFLECTORS, CLEAR PATTERNED GLASS ENCLOSURE.	1	0.8	16
	B	3	EATON - McGRAW-EDISON	GLEON-AF-02-LED-E1-T4FT	GALLEON AREA AND ROADWAY LUMINAIRE (2) 70 CRI, 4000K, 1050mA LIGHTSQUARES WITH 16 LEDS EACH AND TYPE IV FORWARD THROW OPTICS Retail, Roadway, Sidewalk, Site, Street, Substation, Security, Corrosion Resistant, Vandal Resistant, Wet Location	32	0.85	113

VISUAL

Oakridge Dental
Rochester Hills, MI
Site Lighting Photometrics

Designer
WZ
Date
01/23/2018
Scale
as indicated
Drawing No.
Summary



LANDSCAPE PLANTING PLAN scale: 1" = 20'

PLANT LIST

KEY	QTY.	BOTANICAL NAME	COMMON NAME	SIZE
PARKING LOT LANDSCAPING				
LTF	2	*Liriodendron tulipifera* 'Fastigiata'	Fastigiate Tuliptree	3" cal. B&B
TC	1	*Tilia cordata* 'Greenspire'	Greenspire European Linden	3" cal. B&B
CVM	94	*Coreopsis verticillata* 'Moonbeam'	Moonbeam Threadleaf Coreopsis	1 gal. pot, 24" o.c. 375 sq. ft area min.
PERIMETER LANDSCAPING ALONG SOUTH LIVERNOIS ROAD				
AC	5	*Amelanchier canadensis*	Serviceberry	2" cal. B&B
FRO	1	*Fagus sylvatica* 'Red Obelisk'	Red Obelisk European Beech	3" cal. B&B
LTF	2	*Liriodendron tulipifera* 'Fastigiata'	Fastigiate Tuliptree	3" cal. B&B
QR	4	*Quercus rubra*	Red Oak	3" cal. B&B
RAG	44	*Rhus aromatica* 'Gro-Low'	Gro-Low Fragrant Sumac	24" ht., 3 gal. pot
TMD	16	*Taxus x media* 'Densiformis'	Densiformis Yew	24" ht., 3 gal. pot
HHR	120	*Hemerocallis sp.* 'Happy Returns'	Happy Returns Daylily	1 gal. pot, 24" o.c.
STORMWATER MANAGEMENT POND LANDSCAPING				
Bioretention A				
AAB	6	*Aronia arbutifolia* 'Brilliantissima'	Brilliantissima Red Chokeberry	24" ht., 3 gal. pot
LSS	3	*Liquidambar styraciflua* 'Slender Silhouette'	Slender Silhouette American Sweetgum	3" cal. B&B
PG	2	*Picea glauca*	White Spruce	10' ht. B&B
Bioretention B				
CC	6	*Carpinus caroliniana*	American Hornbeam	3" cal. B&B
PG	4	*Picea glauca*	White Spruce	10' ht. B&B
TOW	18	*Thuja occidentalis* 'Woodwardii'	Woodward Globe Arborvitae	24" ht. B&B

LANDSCAPE CALCULATIONS:

PARKING LOT LANDSCAPING (7,258 square feet)
* Interior landscaping areas equivalent to five percent (5%) of the vehicular use area
* 7,258 sq. ft. times 0.05 equals 363 sq. ft. required
* One (1) deciduous shade tree shall be required for each 150 sq. ft. of required interior landscape area - 363 divided by 150 equals 2.42 trees or 3 trees

PERIMETER LANDSCAPING ALONG SOUTH LIVERNOIS ROAD (160 lineal feet)
* One (1) deciduous shade tree for each twenty-five lineal feet (25 l.f.) = 6.4 trees = 7 trees
* One (1) ornamental tree for each thirty-five lineal feet (35 l.f.) = 4.6 trees = 5 trees
* Fifteen (15) shrubs for each one-hundred lineal feet (100 l.f.) = 24 shrubs

STORMWATER MANAGEMENT POND LANDSCAPING

Bioretention A (150 l.f.)
* One and one-half (1.5) deciduous shade tree for each one hundred lineal feet (100 l.f.) = 2.25 trees or 3 trees
* One (1) evergreen tree for each one hundred lineal feet (100 l.f.) = 1.5 trees or 2 trees
* Four (4) shrubs for each one-hundred lineal feet (100 l.f.) = 6 shrubs

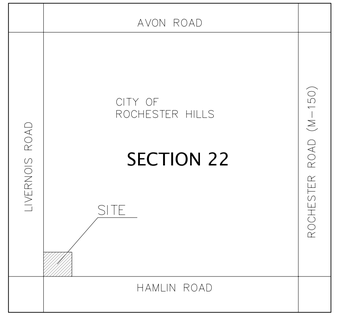
Bioretention B (372 l.f.)
* One and one-half (1.5) deciduous shade tree for each one hundred lineal feet (100 l.f.) = 5.58 trees or 6 trees
* One (1) evrgreen tree for each one hundred lineal feet (100 l.f.) = 3.72 trees or 4 trees
* Four (4) shrubs for each one-hundred lineal feet (100 l.f.) = 14.88 shrubs = 15 shrubs

REPLACEMENT TREES
* Thirty-five (35) replacement trees to be provided consisting of two inch (2") cal. deciduous tree and / or eight foot (8') ht. evergreen trees
* Payment to be made into the City of Rochester Hills Tree Fund for $7,192.50 (35 times $205.50 per replacement tree

COST ESTIMATE

TOTAL MATERIALS SPECIFIED:			
* Deciduous Trees	19	$350	$6,650.00
* Replacement Trees	35	$205.50	$7,192.50
* Evergreen Trees	6	$250	$1,500.00
* Ornamental Trees	5	$200	$1,000.00
* Deciduous Shrubs	50	$50	$2,500.00
* Evergreen Shrubs	34	$50	$1,700.00
* Sodded Lawn (square yards)	400	$2.50	$1,000.00
* Wetland Seed Mix			$1,000.00
* Wildlife Habitat Seed Mix			$1,000.00
* Underground Irrigation			$3,500.00
* Planting Soil Mix	22 cu. yds.	$40	$880.00
* Shredded Hardwood Bark	28 cu. yds.	$30	$840.00
TOTAL			$28,762.50

NOTES:
* See Sheet LP - 2: LANDSCAPE NOTES & DETAILS for landscape development notes, landscape planting details, landscape construction details, and rain garden planting specifications.
* See Sheet LP - 3: TREE PRESERVATION PLAN for proposed action for existing trees, tree inventory list, tree protection detail, and detail for proper pruning techniques.



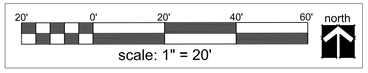
LOCATION MAP not to scale

date: June 5, 2017
revised:
07-05-2017 Revise for site plan changes & City rev. ltrs. dated June 28, 2017.
01-19-2018 Revise for site plan changes.
01-23-2018 Revise for Client review.
02-23-2018 Revise for City rev. ltrs. dated February 9, 2018.

NOT FOR CONSTRUCTION

811 Know what's below. Call before you dig.

CITY OF ROCHESTER HILLS FILE NUMBER: 17-020



LANDSCAPE PLAN FOR:
M1DTW, L.L.C.
1938 Franklin Street
Suite #204
Detroit, Michigan 48207
(313) 874-5936

PROJECT LOCATION:
Oakridge Dental
N.E. Corner of Livernois Road and West Hamlin Road
Rochester Hills, Michigan

LANDSCAPE PLAN BY:
Nagy Devlin Land Design
31736 West Chicago Ave.
Livonia, Michigan 48150
(734) 634-9208

STATE OF MICHIGAN J. BRIAN DEVLIN NO.1260 REGISTERED LANDSCAPE ARCHITECT

J. Brian Devlin AUTOCAD SIGNATURE ORIGINAL IN BLUE

LP - 1: LANDSCAPE PLANTING PLAN

* Base data provided by Engineering Services, Inc.

LANDSCAPE PLANTING NOTES:

PLANTING

1. Installation of all plant material shall be in accordance with the latest edition of the *American Association of Nurserymen Standards for Nursery Stock* and with the specifications set forth by the City of Rochester Hills, Michigan.
2. The plant materials shall conform to the type stated on the plant list. Sizes shall be the minimum stated on the plant list or larger. All measurements shall be in accordance with the latest edition of the *American Association of Nurserymen Standards for Nursery Stock.*
3. The plant material shall be nursery grown and inspected by the Owner's representative before planting. The Owner's representative reserves the right to reject any plant material at any time.
4. Plants designated "B&B" shall be balled and burlapped with firm balls of earth.
5. Dig shrub pits one foot (1') larger than the shrub rootball, tree pits three (3) times the width of the tree rootball and backfill with one (1) part topsoil and one (1) part soil from excavated pit. Plant trees and shrubs at the same grade level at which they were planted at the nursery. If wet, clay soils are evident, plant trees and shrubs slightly higher.
6. The Contractor is responsible for planting the materials at the correct grades and spacing. The plants shall be oriented to give the best appearance.
7. When the plant has been properly set, the pit shall be backfilled with the topsoil mixture, gradually filling, patting, and settling with water.
8. Trees in lawn areas to have a four foot (4') circle of mulch, four inches (4') deep, and three inches (3") away from the trunk. Shrub beds are to be mulched with shredded bark mulch to a minimum depth of three inches (3"). Perennial beds are to be mulched with shredded bark mulch to a minimum depth of three inches (3"). Only natural color, finely shredded hardwood bark mulch will be accepted.
9. Remove all twine, wire, and burlap from the top one third (1/3) of tree and shrub root balls and from tree trunks. Remove all non-biodegradable material such as plastic or nylon completely from branches and stems. All tree wrap, stakes, and guys are to be removed after one (1) winter season.
10. All plant materials shall be pruned and injuries repaired. The amount of pruning shall be limited to the removal of dead or injured limbs and to compensate for the loss of roots from transplanting. Cuts should be flush, leaving no stubs. Cuts over three quarters of an inch (3/4") shall be painted with tree paint. Shrubs along the site perimeter shall be allowed to grow together in a natural form.
11. Organic, friable topsoil shall be evenly distributed and fine graded over all areas to receive lawns at uniform depth of four inches (4") after settlement.
12. All lawn areas shall be seeded with the Grade A Kentucky Blue Grass blend as specified over the topsoil.
13. All plantings shall be completed no later than November 30 in the fall season. The date of intended installation for landscape plant materials is approximately Spring, 2017. Plantings shall thereafter be reasonably maintained, including permanence and health of plant materials to provide a screen to abutting properties and including the absence of weeds and refuse.
14. Backfill directly behind all curbs and along sidewalks and compact to the top of curbs or walk to support vehicle and pedestrian weight without settling.

MATERIAL

1. Required landscape material shall satisfy the criteria of the *American Association of Nurserymen Standards for Nursery Stock* and be:
   a.) Northern nursery grown; b.) State Department of Agriculture inspected; c.) No. 1 grade material with a straight, unscarred trunk, and well-developed uniform crown (park grade trees will not be accepted); d.) Staked, wrapped, watered, and mulched according to the details provided; and e.) Guaranteed for one (1) year.
2. Topsoil shall be friable, fertile soil of clay loam character containing at least five percent (5%) but not more than twenty percent (20%) by weight of organic matter with a pH range between 6.0 and 7.0. The topsoil shall be free from clay lumps, coarse sand, plant roots, sticks, and other foreign materials.
3. The seed mixture shall consist of the following types and proportions: Kentucky Blue Grass blend "Baron/Sheri/Adelphi" @ sixty percent (60%), Chewing Fescue @ twenty-five percent (25%), Creeping Red Fescue @ ten percent (10%), and Perennial Rye Grass @ five percent (5%). Weed content shall not exceed one percent (1%). The mix shall be applied at a rate of 200 pounds per acre.
4. Sod shall be two (2) year old "Baron/Sheri/Adelphi" Kentucky Blue Grass blend grown in a sod nursery on loam soil.
5. Proposed perennials shall be full, well-rooted plants.

GENERAL

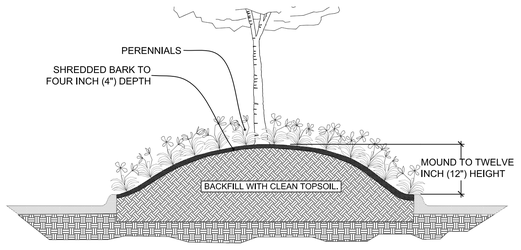
1. Do not plant deciduous or evergreen trees directly over utility lines or under overhead wires. Maintain a six foot (6') distance from the centerline of utilities and twenty feet (20') from the centerline of overhead wires for planting holes. Call MISS DIG forty-eight (48) hours prior to landscape construction for field location of utility lines.
2. The Contractor agrees to guarantee all plant material for a period of one (1) year. At that time, the Owner's representative reserves the right for a final inspection. Plant material with twenty-five percent (25%) die back, as determined by the Owner's representative shall be replaced. This guarantee includes the furnishing of new plants, labor, and materials. These new plants shall also be guaranteed for a period of one (1) year.
3. The work shall consist of providing all necessary materials, labor, equipment, tools, and supervision required for the completion as indicated on the drawings.
4. All landscape areas shall be irrigated by an automatic underground irrigation system. Lawns and shrub/landscape areas shall be watered by separate zones to minimize overwatering.
5. All written dimensions override scale dimensions on the plans.
6. All substitutions or deviations from the landscape plan must be approved by the City of Rochester Hills prior to installation.
7. All bidders must inspect the site and report any discrepancies to the Owner's representative.
8. All specifications are subject to change due to existing conditions.
9. The Owner's representative reserves the right to approve all plant material.

MAINTENANCE

1. The Owner of the landscaping shall perpetually maintain such landscaping in good condition so as to present a healthy, neat, and orderly appearance, free from refuse and debris.
2. All unhealthy, damaged, diseased, and/or dead material shall be removed immediately and replaced within six (6) months after it dies or in the next growing season. The planting season for deciduous plants shall be between March 1 and June 1 and from October 1 until the prepared soil becomes frozen. The planting season for evergreen plants shall be between March 1 and June 1. Plant material installed to replace dead or diseased material shall be as close as practical to the size of the material it is intended to replace. The Cit may notify property owners of the need to replace dead, damaged, or diseased material.
3. The Owner shall conduct a seasonal landscape maintenance program including regular lawn cutting (at least once per week during the growing season), watering, and snow removal during winter. Pruning shall be minimal at the time of installation, only to remove dead or diseased branches. Subsequent pruning will assure proper maturation of plants to achieve their approved purpose.
4. The Contractor is responsible for watering and maintenance of all seed areas until a minimum of ninety percent (90%) coverage, as determined by the Owner's representative.
5. Any debris such as lawn clippings, fallen leaves, fallen limbs, and litter shall be removed from the site on a weekly basis at the appropriate season.
6. All planting beds shall be maintained by removing weeds, fertilizing, and replenishing mulch as needed.
7. The approved landscape plan will be considered a permanent record and integral part of the Site Plan Approval. Unless otherwise approved in accordance with the aforementioned procedures, any revisions to or removal of plant materials, or non-compliance with the maintenance requirements in Section 138-12.109 of the City Ordinance will place the parcel in non-conformity with the approved landscape plan and be a violation of the ordinance.

BIORETENTION PLANTING NOTES

1. **PLANTING SOIL:** Planting soil as specified in the cross section on the engineering plan. The maximum clay content is less than five percent (5%). The soil mixture should have a pH measurement between 5.5 and 6.5 and an infiltration rate greater than a half inch per hour. The soil should be a uniform mix, free of stones, roots, or other similar objects larger than two inches (2"). No other materials or substances should be mixed or dumped within the rain garden area that may be harmful to plant growth or prove a hindrance to planting or maintenance operations. The planting soil should be free from Bermuda Grass, Quack Grass, Johnson Grass, Mugwort, Nutsedge, Poison Ivy, Canada Thistle, or other noxious weeds.
2. **SAND:** Sand should be clean and free of deleterious materials. For planting soil, Michigan Department of Transportation Class II clean sand is recommended.
3. **SOIL PLACEMENT:** Placement of the planting soil in the rain garden area should be conducted in lifts of twelve inches to eighteen inches (12" - 18") and lightly compacted. Minimal compaction effort can be applied to the soil by tamping with a bucket from a dozer or backhoe. Do not use heavy equipment within the bioretention area. Grade the bioretention ponds with light equipment such as a compact loader or a dozer / loader with marsh tracks.
4. **PLANTING:** Follow the Supplier's recommended procedures for bed preparation, installation, and soil erosion control measures of the proposed seeded areas. After the plants germinate and begin to grow follow the maintenance guidelines included on this sheet.
4. **COVER CROP:** Provide a cover crop of annual rye at a rate of ten pounds (10#) per acre and seed oats at a rate of twenty pounds (20#) per acre over the entire area to be seeded.



PARKING LOT ISLAND DETAIL not to scale

RAIN GARDEN SEED MIX

WETLAND SEED MIX

A composition of wildflowers, sedges, and grasses.
Application rate: 3 oz. per 1000 sq. ft. or 6 lbs. per acre

BOTANICAL NAME	COMMON NAME
Wildflowers	
Asclepias incarnata	Swamp Milkweed
Anemone canadensis	Canada Anemone
Aquilegia canadensis	Columbine
Aster novae-angliae	New England Aster
Chelone glabra	White Turtlehead
Coreopsis verticillata	Tall Tickseed
Eupatorium maculatum	Joe-Pye Weed
Eupatorium perfoliatum	Boneset
Fragaria virginiana	Wild Strawberry
Helenium autumnale	Sneezeweed
Iris virginica	Wild Blue Flag
Liatris spicata	Marsh Blazing Star
Monarda fistulosa	Bergamot
Penstemon digitalis	Beardtongue
Potentilla simplex	Old-Field Cinquefoil
Rudbeckia hirta	Black-Eye Susan
Rudbeckia trilobum	Green-Headed Coneflower
Solidago patula	Swamp Goldenrod
Tradescantia ohioensis	Spiderwort
Verbena hastata	Blue Vervain
Verbena urticiforia	White Vervain
Veronia missurica	Ironweed
Veronicastrum virginicum	Culver's Root
Sedges/Grasses	
Carex hystericina	Porcupine Sedge
Carex vulpinoidea	Fox Tail Sedge
Elymus virginicus	Virginia Wild Rye
Sorgastrum nutans	Indian Grass

RAIN GARDEN SEED MIX

SUPPLIER:
MICHIGAN WILDFLOWER FARM
11770 Cutler Road
Portland, Michigan 48875-9452
Phone: (517) 647 6010 Fax: (517) 647 6072
email: wildflowers @voyager.com

WILDLIFE HABITAT SEED MIX
MICHIGAN WILDFLOWER FARM

Twenty percent (20%) Forbs/Eighty percent (80%) Grass. Application rate: 5 oz. per 1000 sq. ft. or ten pounds (10#) per acre.

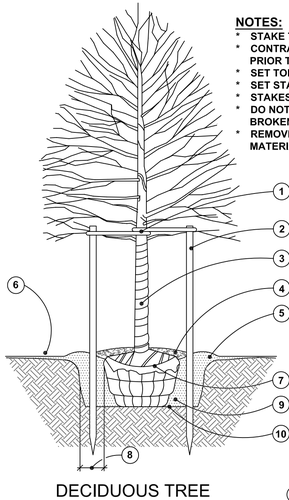
BOTANICAL NAME	COMMON NAME
Forbs	
Achillea millefolium	Yarrow
Asclepias syriaca	Common Milkweed
Aster novae-angliae	New England Aster
Aster pilosus	Hairy Aster
Coreopsis lanceolata	Sand Tickseed
Echinacea purpurea	Purple Coneflower
Monarda fistulosa	Wild Bergamot
Oenothera biennis	Common Evening Primrose
Ratibida pinnata	Yellow Coneflower
Rudbeckia hirta	Black-Eyed Susan
Silphium integrifolium	Rosin Weed
Solidago rigida	Stiff Goldenrod
Sedges/Grasses	
Andropogon gerardii	Big Bluestem
Bouteloua curtipendula	Side Oats Grama
Schzachyrium scoparius	Little Bluestem
Sorgastrum nutans	Indian Grass

MAINTENANCE OF BIORETENTION PONDS:

1. **WEEDING:** Weeding should be conducted on a regular basis and at least once a month. Weeding is particularly important during the establishment period to insure that unwanted plants do not become a problem. Weed once per month in April and May, twice per month in June and July, and once per month in August, September, and October. The native plants proposed should be marked at the time of planting to avoid confusion regarding unwanted plants.
2. **WATERING:** Watering should be performed as needed. During the establishment period after the initial planting, watering is very important and should be conducted every two to three (2-3) days. The initial planting should be checked regularly for appropriate moisture availability. Two (2) methods for determining adequate moisture levels include the following: a.) if the plants wilt during the day when the temperature is at its highest, but revive during the night, then watering is not necessary, and b.) by testing the soil moisture at a depth of four inches (4") by inserting a small rod into the soil. If the soil is moist at a depth of four inches (4"), then watering is not necessary. When possible, the best method for watering is by hand at the base of the plant.
3. **EDGING:** The edge of the bioretention area should be maintained to avoid grass growing into the bioretention pond bed. The edge can be maintained with a V-notch cut edge or with steel or aluminum edging. If the V-notch system is used, the channel should be maintained at four inches (4") or greater and renewed every six to eight (6-8) weeks.
4. **CUTTING BACK:** Tall wildflowers should be cut back by one-third. Early flowering plants can be cut back in late June or early July and late flowering plants in late October.
5. **THINNING:** After the bioretention ponds have become established and thriving, it may be necessary to thin perennials by dividing individual plants in the Spring or Fall.
6. **REPLACEMENT:** Any plants that die or become diseased should be replaced. Plant health should be checked regularly with replanted material occurring in the Spring or Fall.
7. **INFILTRATION:** Stormwater runoff should percolate through the system in four to six (4-6) hours. If pooling of water is evident after this time period check for blockages not allowing water seepage. If the problem is a result of fine sediments built up on the filter fabric, punch small holes in the filter fabric using a two foot to three foot (2'-3') number four (#4) reinforcing rod. If the soils are the problem, install a sand filter at least one foot (1') in width between the mulch layer and the underdrain system. If a clean out pipe is installed as a part of the system, check for any blockages that may reduce water infiltration.
8. **REMOVAL OF LITTER AND DEBRIS:** Litter, trash, and debris should be removed on a regular basis to insure that inlets remain free flowing and to keep the area in a neat and attractive appearance.
9. **INORGANIC APPLICATIONS:** In general, bioretention ponds do not need fertilization as nutrients from surrounding areas is usually at an elevated level. If soil fertility appears to be an issue, the soil should be tested and appropriate actions taken based on the results. Insecticides, herbicides, fungicides, and rodenticides should not be used in the bioretention pond. If a plant is diseased or infested with insects, it should simply be removed and replaced.

CITY OF ROCHESTER HILLS NOTES:

* All landscape areas must be irrigated. An irrigation plan must be submitted prior to Staff approval of the final site plan. Watering will occur only between the hours of 12 a.m. and 5 a.m.
* If existing vegetation is removed or damaged during construction, buffer plantings shall be provided in accordance with the requirements of Section 138-12.300.B.
* Prior to the release of the performance bond, the City of Rochester Hills must inspect all landscape plantings.
* Prior approval is required to plant any tree or shrub on the public right-of-way. All trees and shrubs must be planted at least 10' from the edge of the public road. (Trees must be planted at least 15' away from curb or road edge where the speed limit is more than 35mph). Shade trees and shrubs must be planted at least 5' from the edge of the public walkway. Evergreen and ornamental trees must be planted at least 10' from the edge of the public walkway. No tree or shrubs may be planted with the triangular area formed at the intersection of any street right-of-way lines at a distance along each line of 25' from their point of intersection. No trees or shrubs may be planted in the triangular area formed at the intersection of any driveway with a public walkway at a distance along each line of 15' from their midpoint of intersection. All trees and shrubs must be planted at least 10' from any fire hydrant. Shade and evergreen trees must be at least 15' away from the nearest overhead wire. Trees must be planted a minimum of 5' from an underground utility, unless the City's Landscape Architect requires a greater distance.
* Prior to the release of the performance bond, the City of Rochester Hills Forestry Division needs to inspect all trees, existing or planted, to identify any that pose a hazard to the safe use of the public right-of-way. Forestry may require the developer to remove, and possibly replace, any such trees.
* These requirements are incorporated into this plan.

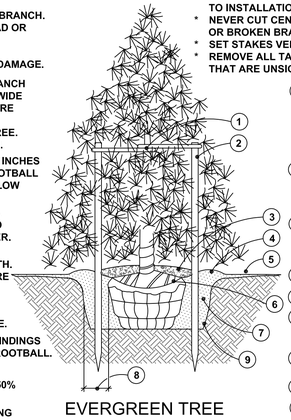


DECIDUOUS TREE

NOTES:

* STAKE TREES UNDER FOUR INCH (4") CALIPER.
* CONTRACTOR TO VERIFY PERCOLATION OF PLANTING PIT PRIOR TO INSTALLATION.
* SET TOP OF BALL THREE INCHES (3") ABOVE FINISH GRADE.
* SET STAKES VERTICAL & EVENLY SPACED.
* STAKES OR GUYS TO BE SECURED ABOVE THE FIRST BRANCH.
* DO NOT PRUNE TERMINAL LEADER. PRUNE ONLY DEAD OR BROKEN BRANCHES.
* REMOVE ALL TAGS, STRING, PLASTICS, AND OTHER MATERIALS THAT ARE UNSIGHTLY OR COULD CAUSE DAMAGE.

1. STAKE TREE JUST ABOVE THE FIRST BRANCH USING TWO INCH TO THREE INCH (2"-3") WIDE BELT-LIKE MATERIAL OF FABRIC. (NO WIRE OR HOSE TO BE USED TO GUY TREES.) THREE (3) GUYS EVENLY SPACED PER TREE. REMOVE AFTER ONE (1) WINTER SEASON.
2. 2 x 2 HARDWOOD STAKES. POSITION SIX INCHES TO EIGHT INCHES (6"-8") OUTSIDE OF ROOTBALL AND EXTEND EIGHTEEN INCHES (18") BELOW TREE PIT INTO UNDISTURBED SOIL.
3. APPLY TREE WRAP AND SECURE WITH A BIODEGRADABLE MATERIAL AT TOP AND BOTTOM. REMOVE AFTER ONE (1) WINTER.
4. SHREDDED BARK MULCH OF A NATURAL COLOR AT FOUR INCH (4") MINIMUM DEPTH. LEAVE A THREE INCH (3") CIRCLE OF BARE SOIL AT THE BASE OF THE TREE.
5. MOUND TO FORM TREE SAUCER.
6. FINISH GRADE SLOPED AWAY FROM TREE.
7. CUT AND REMOVE WIRE, BURLAP, AND BINDINGS FROM THE TOP ONE-THIRD (1/3) OF THE ROOTBALL.
8. WIDTH OF ROOTBALL ON EACH SIDE.
9. PLANTING MIXTURE SHALL CONSIST OF 50% TOSOIL AND 50% SAND.
10. SCARIFY BOTTOM AND SIDES OF PLANTING PIT TO FOUR INCH (4") DEPTH.



EVERGREEN TREE

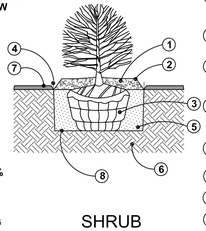
NOTES:

* STAKE ALL EVERGREEN TREES UNDER TWELVE FEET (12') HIGH. GUY ALL EVERGREEN TREES TWELVE FEET (12') HIGH AND OVER.
* CONTRACTOR TO VERIFY PERCOLATION OF PLANTING PIT PRIOR TO INSTALLATION.
* NEVER CUT CENTRAL LEADER. PRUNE ONLY TO REMOVE DEAD OR BROKEN BRANCHES.
* SET STAKES VERTICAL AND EVENLY SPACED.
* REMOVE ALL TAGS, STRING, PLASTICS, AND OTHER MATERIALS THAT ARE UNSIGHTLY OR COULD CAUSE GIRDLING.

1. STAKE TREE AS INDICATED USING TWO INCH TO THREE INCH (2"-3") WIDE BELT-LIKE MATERIAL OF FABRIC. (NO WIRE OR HOSE TO BE USED TO GUY TREES.) THREE (3) GUYS EVENLY SPACED PER TREE. REMOVE AFTER ONE (1) WINTER SEASON.
2. 2 x 2 HARDWOOD STAKES. POSITION SIX INCHES TO EIGHT INCHES (6"-8") OUTSIDE OF ROOTBALL AND EXTEND EIGHTEEN INCHES (18") BELOW TREE PIT INTO UNDISTURBED SOIL.
3. SHREDDED BARK MULCH OF A NATURAL COLOR AT FOUR INCH (4") MINIMUM DEPTH. LEAVE A THREE INCH (3") CIRCLE OF BARE SOIL AT THE BASE OF THE TREE.
4. MOUND TO FORM TREE SAUCER.
5. FINISH GRADE SLOPED AWAY FROM TREE.
6. CUT AND REMOVE WIRE, BURLAP, AND BINDINGS FROM THE TOP ONE-THIRD (1/3) OF THE ROOTBALL.
7. PLANTING MIXTURE SHALL CONSIST OF 50% TOSOIL AND 50% SAND.
8. WIDTH OF ROOTBALL ON EACH SIDE.
9. SCARIFY BOTTOM AND SIDES OF PLANTING PIT TO FOUR INCH (4") DEPTH.

GENERAL NOTES FOR ALL PLANTINGS:

* DO NOT CUT CENTRAL LEADER. PRUNE ONLY TO REMOVE DEAD OR BROKEN BRANCHES.
* REMOVE ALL TAGS, STRINGS, PLASTICS, AND ANY OTHER NON-BIODEGRADEABLE MATERIALS (EXCEPT LABEL FOR PLANT NAME) FROM PLANT STEMS OR CROWN WHICH ARE UNSIGHTLY OR COULD CAUSE GIRDLING.
* PLANTS SHALL BEAR THE SAME RELATIONSHIP TO FINISH GRADE AS IT BORE TO THE PREVIOUS GRADE IN THE NURSERY. SET THE BASE OF THE PLANT SLIGHTLY HIGHER THAN EXISTING GRADE IF PLANTING IN CLAY SOILS.
* CENTER THE ROOTBALL IN THE PLANTING HOLE. LEAVE THE BOTTOM OF THE HOLE FIRM. USE WATER TO SETTLE THE PLANTING MIX AND REMOVE ANY AIR POCKETS AND FIRMLY SET THE TREE OR SHRUB. GENTLY TAMP IF NEEDED.

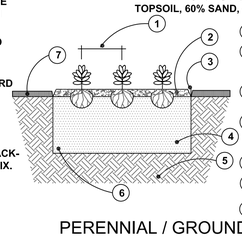


SHRUB

NOTE:

* CONTRACTOR TO VERIFY PERCOLATION OF PLANTING PIT PRIOR TO INSTALLATION.
* THE PLANTING MIXTURE SHALL CONSIST OF 20% TOPSOIL, 60% SAND, AND 20% COMPOST.

1. SHREDDED BARK MULCH AT THREE INCH (3") MINIMUM DEPTH. MULCH SHALL BE NATURAL IN COLOR.
2. FORM A SAUCER WITH MULCH AND SOIL AROUND SHRUB BED.
3. CUT AND REMOVE BURLAP AND BINDINGS FROM THE TOP ONE-THIRD (1/3) OF THE ROOTBALL.
4. 3/16" x 4" ALUMINUM EDGING (OR APPROVED EQUIVALENT) OR SPADED EDGE.
5. EXCAVATE PLANTING BED AND BACK-FILL WITH PREPARED PLANTING MIX.
6. UNDISTURBED SUBGRADE.
7. LAWN.
8. SCARIFY SUBGRADE.



PERENNIAL / GROUNDCOVER

NOTE:

* CONTRACTOR TO VERIFY PERCOLATION OF PLANTING PIT PRIOR TO INSTALLATION.
* PERENNIALS TO BE PLANTED UP TO THE EDGE OF THE SAUCER AROUND A TREE OR SHRUB BED.
* THE PLANTING MIXTUE SHALL CONSIST OF 20% TOPSOIL, 60% SAND, AND 20% COMPOST.

1. SEE PLANT LIST FOR SPACING DISTANCE.
2. SHREDDED HARDWOOD BARK OF A NATURAL COLOR MULCH AT TWO INCH (2") MINIMUM DEPTH.
3. 3/16" x 4" ALUMINUM EDGING (OR APPROVED EQUIVALENT) OR SPADED EDGE.
4. EXCAVATE PLANTING BED AND BACKFILL WITH PREPARED PLANTING MIX AT A TEN INCH (10") DEPTH.
5. UNDISTURBED SUBGRADE.
6. PLANTING MIX TO CONSIST OF EQUAL PARTS OF SAND, LEAF COMPOST, AND NATIVE SOIL.
7. LAWN.

PLANTING DETAILS not to scale

NOT FOR CONSTRUCTION

NOTES:

* See Sheet LP - 1: LANDSCAPE PLANTING PLAN for overall planting plan, schedule for landscape requirements, plant list, cost estimate, and location map.
* See Sheet LP - 3: TREE PRESERVATION PLAN for proposed action for existing trees, tree inventory list, tree protection detail, and detail for proper pruning techniques.

date: June 5, 2017
revised:
07-05-2017 Revise for site plan changes & City rev. ltrs. dated June 28, 2017.
01-19-2018 Revise for site plan changes.
01-23-2018 Revise for Client review.
02-23-2018 Revise for City rev. ltrs. dated February 9, 2018.

Know what's below. Call before you dig. 811

CITY OF ROCHESTER HILLS FILE NUMBER: 17-020

LANDSCAPE PLAN FOR:
M1DTW, L.L.C.
1938 Franklin Street
Suite #204
Detroit, Michigan 48207
(313) 874-5936

PROJECT LOCATION:
Oakridge Dental
N.E. Corner of Livernois Road
and West Hamlin Road
Rochester Hills, Michigan

LANDSCAPE PLAN BY:
Nagy Devlin Land Design
31736 West Chicago Ave.
Livonia, Michigan 48150
(734) 634-9208

STATE OF MICHIGAN J. BRIAN DEVLIN NO.1260 REGISTERED LANDSCAPE ARCHITECT

J. Brian Devlin AUTOCAD SIGNATURE ORIGINAL IN BLUE

LP - 2: LANDSCAPING NOTES & DETAILS

TREE INVENTORY LIST

TAG #	SIZE (dbh)	SPECIES	BOTANICAL NAME	CONDITION	ACTION
701	28"	Cottonwood	*Populus deltoides*	Fair/Poor	Off-Site
702	13"	Cottonwood	*Populus deltoides*	Fair	Off-Site
703	17", 18", 22"	Cottonwood	*Populus deltoides*	Fair	Off-Site
704	28"	Cottonwood	*Populus deltoides*	Fair	Off-Site
705	7"	Cottonwood	*Populus deltoides*	Poor	Off-Site
706	11"	Cottonwood	*Populus deltoides*	Poor	Off-Site
707	17"	Cottonwood	*Populus deltoides*	Fair	Off-Site
708	6"	Elm	*Ulmus sp.*	Poor	Off-Site
709	23"	Cottonwood	*Populus deltoides*	Fair/Poor	Off-Site
710	20" & 20"	Cottonwood	*Populus deltoides*	Fair/Poor	Off-Site
711	8"	Ash	*Fraxinus sp.*	Dead	Remove* OS
712	29"	Cottonwood	*Populus deltoides*	Fair	Off-Site
713	12"	Cottonwood	*Populus deltoides*	Poor	Off-Site
714	11"	Elm	*Ulmus sp.*	Poor	Off-Site
715	19"	Cottonwood	*Populus deltoides*	Fair/Poor	Off-Site
716	8"	Cottonwood	*Populus deltoides*	Poor	Off-Site
717	23"	Cottonwood	*Populus deltoides*	Fair	Off-Site
718	16" & 18"	Cottonwood	*Populus deltoides*	Poor	Remove*
719	6"	Elm	*Ulmus sp.*	Fair	Remove
720	16"	Cottonwood	*Populus deltoides*	Poor	Remove*
721	17" & 21"	Cottonwood	*Populus deltoides*	V. Poor	Remove*
722	15"	Cottonwood	*Populus deltoides*	Poor	Remove*
723	19"	Cottonwood	*Populus deltoides*	V. Poor	Remove*
724	22"	Cottonwood	*Populus deltoides*	Fair	Remove
725	19"	Cottonwood	*Populus deltoides*	Fair/Poor	Remove
726	12"	Ash	*Fraxinus sp.*	Dead	Remove*
727	7"	Elm	*Ulmus sp.*	Fair	Remove
728	26"	Cottonwood	*Populus deltoides*	Poor	Remove*
729	8", 15", & 15"	Cottonwood	*Populus deltoides*	Poor	Remove*
730	40"	Cottonwood	*Populus deltoides*	Fair	Remove
731	8" & 22"	Cottonwood	*Populus deltoides*	Fair/Poor	Remove
732	7"	Elm	*Ulmus sp.*	Dead	Remove*
733	11"	Elm	*Ulmus sp.*	Dead	Remove*
734	8"	Elm	*Ulmus sp.*	Dead	Remove*
735	14"	Ash	*Fraxinus sp.*	Dead	Remove*
736	6"	Elm	*Ulmus sp.*	Dead	Remove*
737	9"	Elm	*Ulmus sp.*	Dead	Remove*
738	7"	Elm	*Ulmus sp.*	Dead	Remove*
739	26"	Willow	*Salix sp.*	Fair/Poor	Remove*
740	22"	Spruce	*Picea sp.*	Fair	Save
741	19"	Spruce	*Picea sp.*	Fair	Save
742	17"	Spruce	*Picea sp.*	Fair	Save
743	18"	Spruce	*Picea sp.*	Fair	Save
744	19"	Spruce	*Picea sp.*	Fair	Save
745	13"	Spruce	*Picea sp.*	Fair	Off-Site
746	26"	Spruce	*Picea sp.*	Fair	Off-Site
747	15"	Spruce	*Picea sp.*	Fair	Off-Site
748	6"	Spruce	*Picea sp.*	Poor	Save
749	14"	Spruce	*Picea sp.*	Fair	Save
750	8"	Spruce	*Picea sp.*	Poor	Save
751	17"	Spruce	*Picea sp.*	Fair	Save
752	13"	Spruce	*Picea sp.*	Fair	Save
753	7"	Spruce	*Picea sp.*	Fair	Save
754	14"	Spruce	*Picea sp.*	Fair	Save
755	18"	Spruce	*Picea sp.*	Fair	Save
756	19"	Spruce	*Picea sp.*	Fair	Off-Site
757	7"	Elm	*Ulmus sp.*	Poor	Remove*
758	10"	Elm	*Ulmus sp.*	Fair	Remove
759	7"	Elm	*Ulmus sp.*	Fair/Poor	Remove
760	7" & 13"	Elm	*Ulmus sp.*	Fair	Remove
761	13"	Elm	*Ulmus sp.*	Very Poor	Remove*
762	6"	Elm	*Ulmus sp.*	Very Poor	Remove*
763	11"	Elm	*Ulmus sp.*	Dead	Remove*
764	7"	Elm	*Ulmus sp.*	Dead	Remove*
765	10"	Elm	*Ulmus sp.*	Fair	Remove
766	7"	Elm	*Ulmus sp.*	Poor	Remove*
767	9"	Elm	*Ulmus sp.*	Dead	Remove*
768	7"	Elm	*Ulmus sp.*	Poor	Remove*
769	8"	Elm	*Ulmus sp.*	Dead	Remove*
770	7"	Elm	*Ulmus sp.*	Very Poor	Remove*
TOTALS	No. of Trees: 70	Save: 13	Remove: 10	Remove*: 26	O.S.: 21

TAG #	SIZE (dbh)	SPECIES	BOTANICAL NAME	CONDITION	ACTION
771	13"	Elm	*Ulmus sp.*	Fair	Remove
772	16"	Elm	*Ulmus sp.*	Poor	Remove*
773	7"	Elm	*Ulmus sp.*	Dead	Remove*
774	10"	Black Cherry	*Prunus serotina*	Fair	Remove
775	10"	Scots Pine	*Pinus sylvestris*	Fair	Remove
776	7"	Elm	*Ulmus sp.*	Fair	Remove
777	10"	Scots Pine	*Pinus sylvestris*	Fair	Remove
778	9"	Scots Pine	*Pinus sylvestris*	Fair	Remove
779	13"	Scots Pine	*Pinus sylvestris*	Fair	Remove
780	7"	Elm	*Ulmus sp.*	Fair	Remove
781	10"	Scots Pine	*Pinus sylvestris*	Fair	Remove
782	16"	Scots Pine	*Pinus sylvestris*	Fair	Remove
783	15"	Scots Pine	*Pinus sylvestris*	Fair	Remove
784	9"	Elm	*Ulmus sp.*	Fair	Remove
785	13"	Scots Pine	*Pinus sylvestris*	Fair	Remove
786	20"	Scots Pine	*Pinus sylvestris*	Fair	Remove
787	11"	Scots Pine	*Pinus sylvestris*	Fair	Remove
788	8"	Scots Pine	*Pinus sylvestris*	Fair	Remove
789	14"	Scots Pine	*Pinus sylvestris*	Fair	Remove
790	13"	Scots Pine	*Pinus sylvestris*	Fair	Remove
791	18"	Scots Pine	*Pinus sylvestris*	Fair	Remove
792	10"	Scots Pine	*Pinus sylvestris*	Fair	Remove
793	8"	Elm	*Ulmus sp.*	Poor	Remove*
794	7"	Elm	*Ulmus sp.*	Poor	Remove*
795	8"	Ash	*Fraxinus sp.*	Dead	Remove*
796	8"	Elm	*Ulmus sp.*	Dead	Remove*
797	7"	Scots Pine	*Pinus sylvestris*	Fair	Remove
798	6"	Elm	*Ulmus sp.*	Poor	Remove*
799	6"	Elm	*Ulmus sp.*	Dead	Remove*
800	14"	Scots Pine	*Pinus sylvestris*	Fair	Remove
801	11"	Scots Pine	*Pinus sylvestris*	Fair	Remove
802	7"	Scots Pine	*Pinus sylvestris*	Poor	Remove*
803	6"	Scots Pine	*Pinus sylvestris*	Fair/Poor	Remove
804	7"	Ash	*Fraxinus sp.*	Dead	Remove*
805	6"	Ash	*Fraxinus sp.*	Dead	Remove*
806	7"	Elm	*Ulmus sp.*	Fair	Off-Site
807	6"	Elm	*Ulmus sp.*	Fair	Off-Site
808	6"	Elm	*Ulmus sp.*	Fair	Off-Site
809	8"	Elm	*Ulmus sp.*	Fair	Off-Site
810	15"	Elm	*Ulmus sp.*	Fair	Off Site
811	13"	Elm	*Ulmus sp.*	Very Poor	Off-Site
812	16"	Elm	*Ulmus sp.*	Fair/Poor	Off-Site
813	9"	Ash	*Fraxinus sp.*	Dead	Remove* O.S.
814	8"	Elm	*Ulmus sp.*	Fair	Off-Site
815	17"	Scots Pine	*Pinus sylvestris*	Fair	Off-Site
816	17"	Scots Pine	*Pinus sylvestris*	Fair	Off-Site
817	15"	Elm	*Ulmus sp.*	Fair	Off-Site
818	7"	Elm	*Ulmus sp.*	Fair	Off-Site
819	6"	Scots Pine	*Pinus sylvestris*	Fair	Remove
820	8"	Scots Pine	*Pinus sylvestris*	Fair	Remove
821	10"	Scots Pine	*Pinus sylvestris*	Fair	Remove
822	9"	Scots Pine	*Pinus sylvestris*	Fair	Remove
823	7"	Ash	*Fraxinus sp.*	Dead	Remove*
824	6"	Elm	*Ulmus sp.*	Very Poor	Remove*
825	16"	Elm	*Ulmus sp.*	Poor	Save
826	8"	Elm	*Ulmus sp.*	Fair	Save
827	13"	Elm	*Ulmus sp.*	Fair	Save
828	7"	Ash	*Fraxinus sp.*	Dead	Remove* O.S.
829	22"	Scots Pine	*Pinus sylvestris*	Fair	Off-Site
830	17"	Elm	*Ulmus sp.*	Dead	Remove*
831	23"	Spruce	*Picea sp.*	Fair	Off-Site
832	19"	Spruce	*Picea sp.*	Fair	Off-Site
833	20"	Scots Pine	*Pinus sylvestris*	Fair	Off-Site
834	16"	Austrian Pine	*Pinus nigra*	Poor	Off-Site
835	18"	Austrian Pine	*Pinus nigra*	Fair	Off-Site
836	17"	Austrian Pine	*Pinus nigra*	Poor	Off-Site
837	18"	Austrian Pine	*Pinus nigra*	Fair	Off-Site
838	8", 12", & 18"	Common Apple	*Malus sylvestris*	Poor	Off-Site
839	8", 11", 15", 17" & 18"	Common Apple	*Malus sylvestris*	Fair/Poor	Off-Site
840	25"	Spruce	*Picea sp.*	Fair	Off Site
TOTALS	No. of Trees: 70	Save: 3	Remove: 28	Remove*: 14	O.S.: 25

TREE REPLACEMENT CALCULATION:

Total No. of Trees Surveyed: 140
Total No. of Trees on Parcel 'A' and Parcel 'B' minus off-site trees: 136

Parcel 'A'
Total No. of Trees: 74
Total No. of Poor, V. Poor, & Dead Trees: 28
Total No. of Regulated Trees: 46
Total No. of Regulated Trees Removed: 31
Total No. of Regulated Trees Saved: 15
Percentage of Trees Saved: 33%

Parcel 'B'
Total No. of Trees: 62
Total No. of Poor, V. Poor, & Dead Trees: 27
Total No. of Regulated Trees: 35
Total No. of Regulated Trees Removed: 4
Total No. of Regulated Trees Saved: 31
Percentage of Trees Saved: 89%

Thirty-five (35) replacement trees to be provided consisting of two inch (2") caliper deciduous tree and/or eight foot (8') height evergreen trees

DEFINITIONS FOR CONDITION RATINGS:

GOOD:
The tree appears to be in a healthy and satisfactory condition with an overall sound stem structure and with a full and balanced crown; the growth habit appears normal; there is no indication of pests or diseases present; and the life expectancy is judged to be greater than twenty-five (25) years.

* FAIR:
The tree appears to be in a healthy and satisfactory condition with a minimum of structural problems and with minor crown imbalance or thin crown; the growth habit appears normal; there is no indication of pests or diseases present; and the life expectancy is judged to be greater than twenty (20) years.

* POOR:
The tree appears to be in an unhealthy condition with structural problems and with major crown imbalance, dead or dying limbs, or growth only in the top quarter of the tree; the growth habit is misshapen and askew; there is evidence of pests or diseases present; and the life expectancy is judged to be less than ten (10) years.

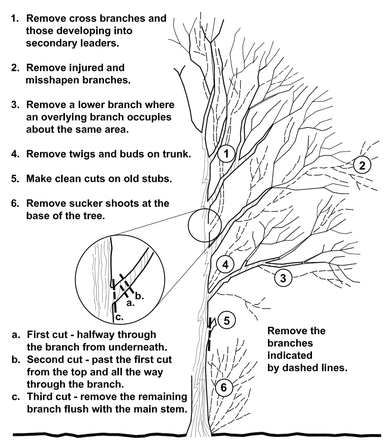
* VERY POOR (V. Poor):
The tree appears to be in an unhealthy condition with major structural problems and with major crown imbalance or several dead limbs and/or peeling bark; the growth habit is severely misshapen and askew; there is evidence of pests or diseases present; and the life expectancy is judged to be less than five (5) years.

* DEAD:
The tree has no live branches, is topped, or fallen.

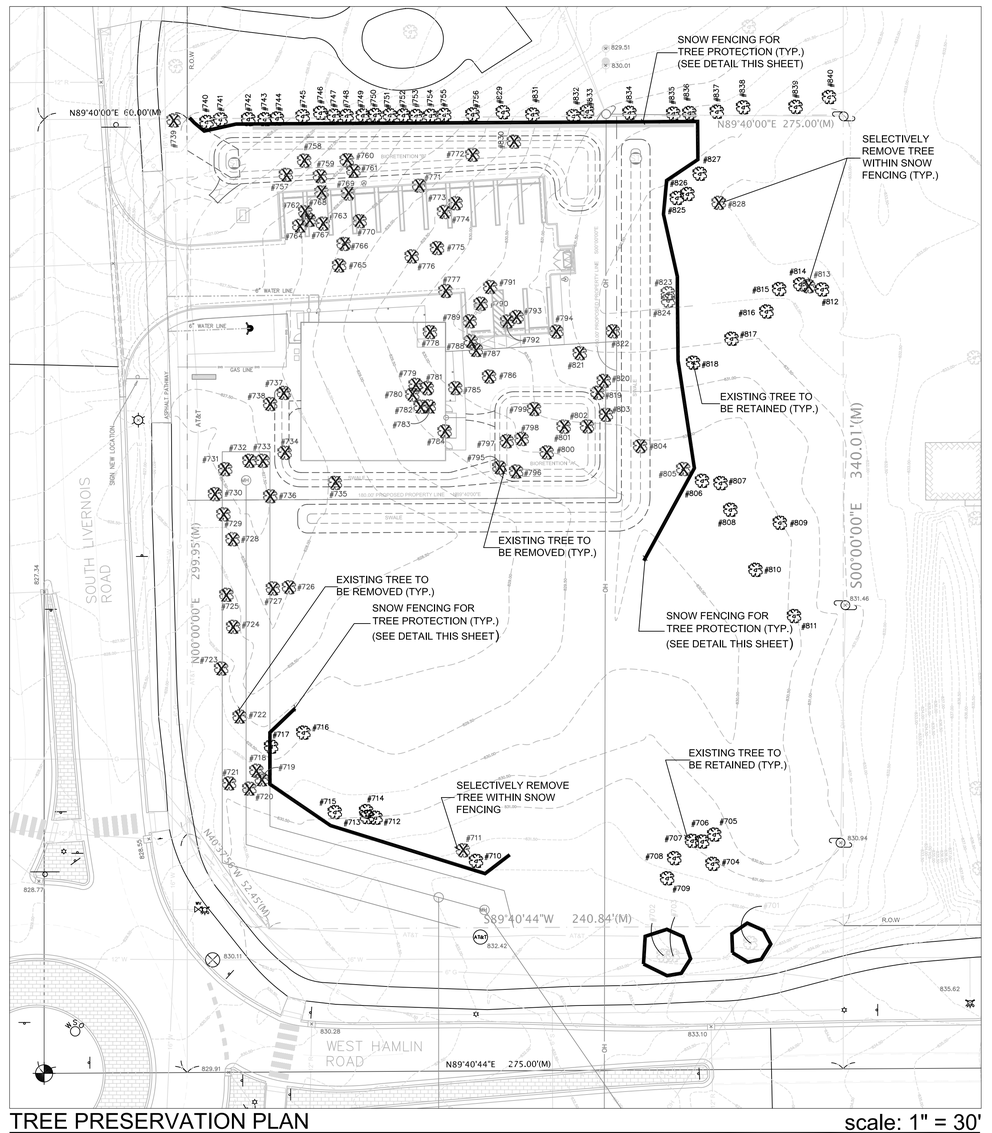
NOTES FOR EXISTING TREES:

1. A Tree Removal Permit application must be submitted for the proposed activity after site plan approval has been granted.
2. No land balancing or tree removal shall occur on site until final site plan approval has been granted and the location of the tree protection fences have been inspected and approved by the Township. A Tree Permit must be obtained from the Planning Department prior to any tree removal activity involving trees four inches (4") or more diameter at breast height (d.b.h.).
3. No damaging attachments such as wires (other than cabling straps for trees), signs, or permits may be fastened to any tree protected by the ordinance.
4. The Tree Permit shall be permanently displayed on the site throughout the entire construction process. The Owner shall allow Township representatives to enter and inspect the premises at any reasonable time and failure to allow inspection shall constitute a violation of the Tree Protection Ordinance.
5. Existing trees within fifteen feet (15') of buildings and roads are to be pruned by a professional tree contractor.
6. Ash trees proposed for removal must be disposed of properly.

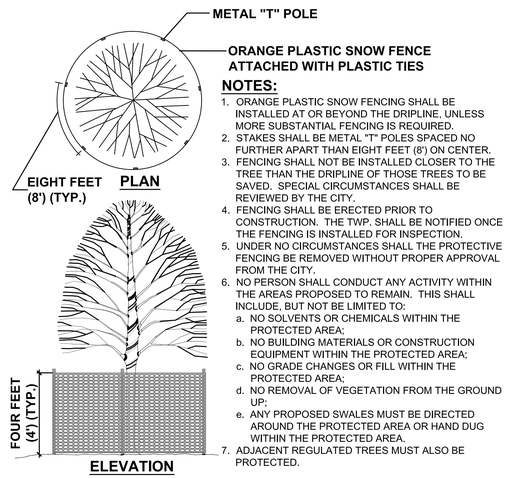
NOTES:
* See Sheet LP - 1: LANDSCAPE PLANTING PLAN for overall planting plan, schedule for landscape requirements, plant list, cost estimate, and location map.
* See Sheet LP - 2: LANDSCAPE NOTES & DETAILS for landscape development notes, landscape planting details, landscape construction details, and rain garden planting specifications.



TREE PRUNING DETAIL not to scale



TREE PRESERVATION PLAN scale: 1" = 30'



NOTES:
1. ORANGE PLASTIC SNOW FENCING SHALL BE INSTALLED AT OR BEYOND THE DRIPLINE, UNLESS MORE SUBSTANTIAL FENCING IS REQUIRED.
2. STAKES SHALL BE METAL "T" POLES SPACED NO FURTHER APART THAN EIGHT FEET (8') ON CENTER.
3. FENCING SHALL NOT BE INSTALLED CLOSER TO THE TREE THAN THE DRIPLINE OF THOSE TREES TO BE SAVED. SPECIAL CIRCUMSTANCES SHALL BE REVIEWED BY THE CITY.
4. FENCING SHALL BE ERECTED PRIOR TO CONSTRUCTION. THE TWP. SHALL BE NOTIFIED ONCE THE FENCING IS INSTALLED FOR INSPECTION.
5. UNDER NO CIRCUMSTANCES SHALL THE PROTECTIVE FENCING BE REMOVED WITHOUT PROPER APPROVAL FROM THE CITY.
6. NO PERSON SHALL CONDUCT ANY ACTIVITY WITHIN THE AREAS PROPOSED TO REMAIN. THIS SHALL INCLUDE, BUT NOT BE LIMITED TO:
   a. NO SOLVENTS OR CHEMICALS WITHIN THE PROTECTED AREA;
   b. NO BUILDING MATERIALS OR CONSTRUCTION EQUIPMENT WITHIN THE PROTECTED AREA;
   c. NO GRADE CHANGES OR FILL WITHIN THE PROTECTED AREA;
   d. NO REMOVAL OF VEGETATION FROM THE GROUND UP;
   e. ANY PROPOSED SWALES MUST BE DIRECTED AROUND THE PROTECTED AREA OR HAND DUG WITHIN THE PROTECTED AREA.
7. ADJACENT REGULATED TREES MUST ALSO BE PROTECTED.

TREE PROTECTION DETAIL not to scale

NOT FOR CONSTRUCTION

date: June 5, 2017
revised:
07-05-2017 Revise for site plan changes & City rev. ltrs. dated June 28, 2017.
01-19-2018 Revise for site plan changes.
01-23-2018 Revise for Client review.
02-23-2018 Revise for City rev. ltrs. dated February 9, 2018.

Know what's **below.** **Call** before you dig. 811

CITY OF ROCHESTER HILLS FILE NUMBER: 17-020

30' 0' 30' 60' 90' north
scale: 1" = 30'

LANDSCAPE PLAN FOR:
M1DTW, L.L.C.
1938 Franklin Street
Suite #204
Detroit, Michigan 48207
(313) 874-5936

PROJECT LOCATION:
Oakridge Dental
N.E. Corner of Livernois Road
and West Hamlin Road
Rochester Hills, Michigan

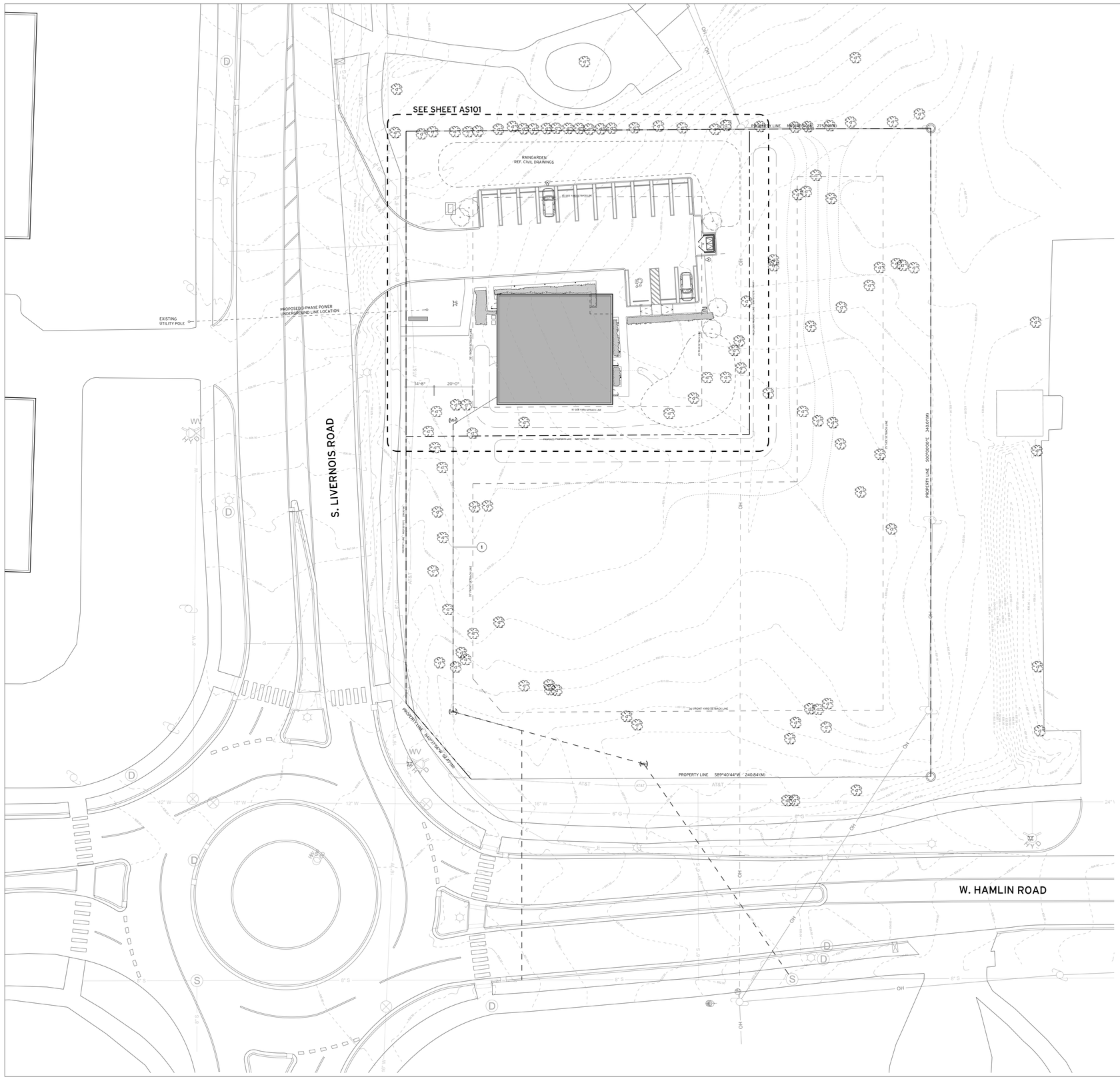
LANDSCAPE PLAN BY:
Nagy Devlin Land Design
31736 West Chicago Ave.
Livonia, Michigan 48150
(734) 634-9208

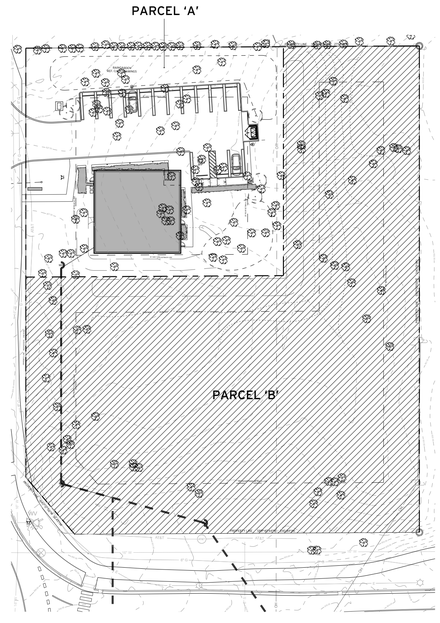
STATE OF MICHIGAN J. BRIAN DEVLIN NO.1260 REGISTERED LANDSCAPE ARCHITECT

AUTOCAD SIGNATURE ORIGINAL IN BLUE

LP - 3: TREE PRESERVATION PLAN

* Base data provided by Engineering Services, Inc.





PARCEL 'B' CREATED BY FUTURE LAND DIVISION
FUTURE DEVELOPMENT

2 LAND DIVISION
SCALE: 1" = 50'-0"

1 ARCHITECTURAL SITE PLAN
SCALE: 1" = 25'-0"

N

GENERAL SITE PLAN NOTES

1. CONTRACTOR SHALL VERIFY EXACT LOCATIONS OF ALL PROPERTY LINES, EASEMENTS, SETBACKS, & UTILITIES PRIOR TO PERFORMING ANY WORK.

2. CONTRACTOR SHALL VERIFY THE EXISTENCE & LOCATION OF ALL UTILITIES BEFORE COMMENCING WORK OR ANY TRENCHING. NOTICE OF PROPOSED WORK SHALL BE GIVEN TO THE APPLICABLE GAS, ELECTRICAL, TELEPHONE, SEWER, AND WATER AGENCIES.

3. REFERENCE TREE PRESERVATION PLAN AND LANDSCAPE PLAN FROM LANDSCAPE ARCHITECT.

KEY NOTES

1. PROPOSED PUBLIC SEWER EXTENSION.

STATE OF MICHIGAN
MICHAEL CRAIG BORUM
ARCHITECT
No. 46115
LICENSED ARCHITECT

OAKRIDGE DENTAL

1959 S. LIVERNOIS ROAD, ROCHESTER HILLS, MI 48307

PROJECT 1631

1938 FRANKLIN STREET / #204 / DETROIT / MI / 48207 / USA / 313 874 5936 / 866 857 6421 FAX / MAIL@M1DTW.COM

M1/DTW

DATE: 22 JAN 2018

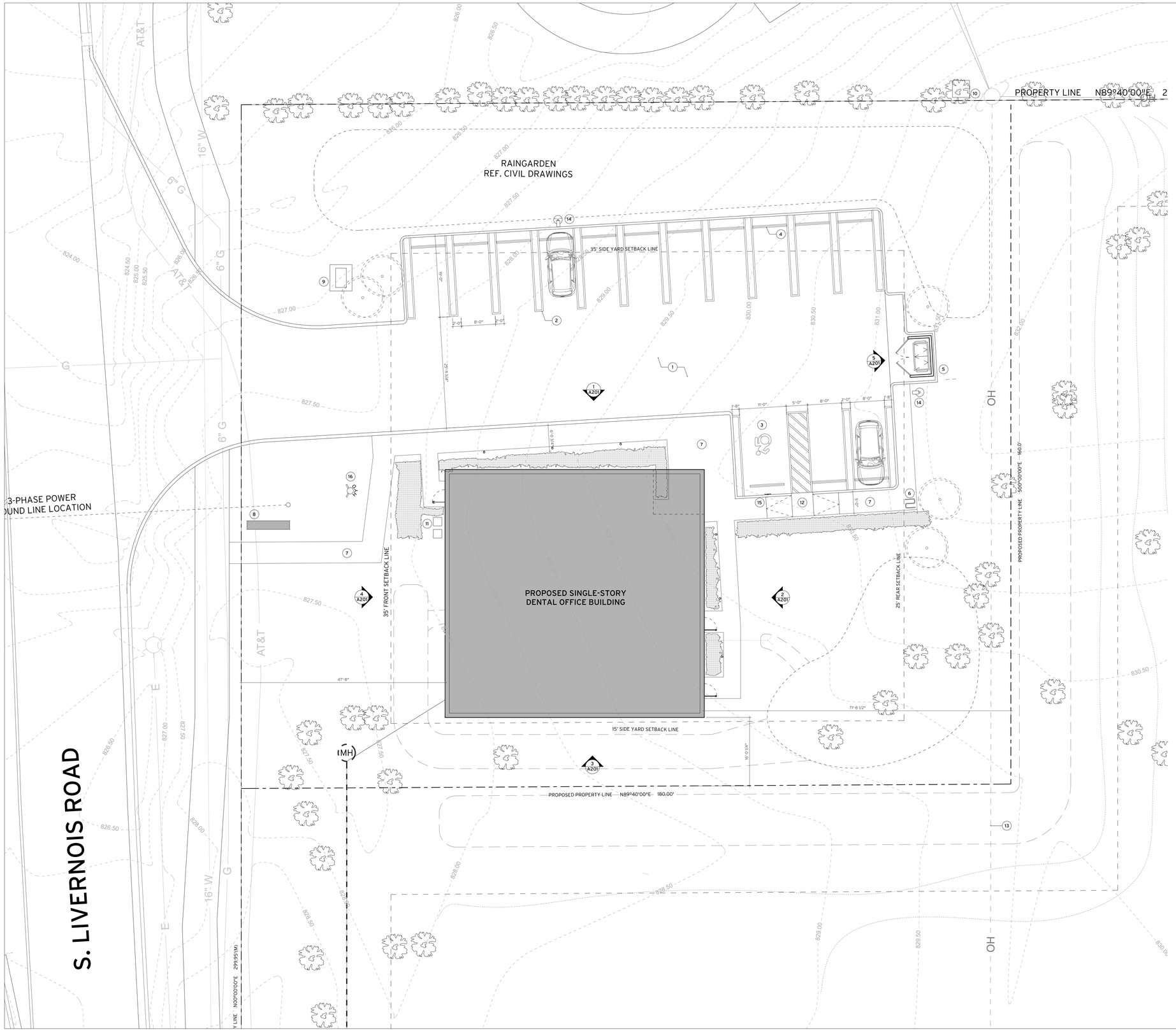
DATE	SET
01/22/18	SITE PLAN APPR.

PRELIMINARY
NOT FOR CONSTRUCTION

SCALE: AS NOTED

ARCHITECTURAL SITE PLAN

AS100



GENERAL SITE PLAN NOTES

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3. REFERENCE TREE PRESERVATION PLAN AND LANDSCAPE PLAN FROM LANDSCAPE ARCHITECT.

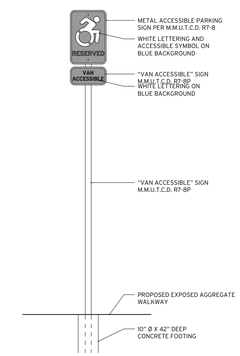
KEY NOTES

1. ASPHALT PARKING SURFACE
2. 4" WIDE PAVEMENT DOUBLE STRIPING, TYP. PER SECTION 138-11.304
3. BARRIER FREE PARKING SPACE PER TABLE 15 / SECTION 138-11.300
4. PRECAST CONCRETE WHEELSTOP, TYP
5. BURNISHED BLOCK SURROUND WITH METAL FRAME & FIBER CEMENT SLAT DOORS
6. PROPOSED LOCATION OF BICYCLE PARKING RACKS
7. EXPOSED AGGREGATE CONCRETE WALKWAYS
8. EXTERIOR LANDSCAPE BUSINESS SIGN

   NOTE: ALL SIGNS MUST MEET CHAPTER 134 OF THE CITY CODE OF ORDINANCES AND BE APPROVED UNDER A SEPARATE PERMIT ISSUED BY THE BUILDING DEPARTMENT
9. 3-PHASE, PAD MOUNTED TRANSFOMER AND CONCRETE PAD
10. SINGLE PHASE, PAD MOUNTED TRANSFOMER AND CONCRETE PAD TO FEED 1921 S. LIVERNOIS
11. EXTERIOR CONDENSER
12. ADA ACCESSIBLE CURB CUT ON ACCESSIBLE ROUTE FROM PARKING LOT TO BUILDING
13. EXISTING SINGLE-PHASE OVERHEAD POWER LINES TO BE REMOVED IN COORDINATION WITH DTE AND OWNER OF 1921 S. LIVERNOIS STREET
14. 13'-6" LIGHT POLE AND ARM MOUNTED LUMINAIRE, ON 24" Ø REINFORCED CONCRETE BASE, 15' HIGH MAX.
15. ACCESSIBLE PARKING SPACE SIGN
16. PROPOSED ON-SITE FIRE HYDRANT LOCATION

DELIVERY/LOADING ZONE NOTE:

THE PROPOSED BUILDING AND USE AS A DENTAL OFFICE WILL ONLY RECEIVE SMALLER DELIVERIES FROM PARCEL DELIVERY TRUCKS



2 ACCESSIBLE PARKING SIGN
SCALE: 1/2" = 1'-0"

1 ARCHITECTURAL SITE PLAN
SCALE: 3/32" = 1'-0"

N

STATE OF MICHIGAN
MICHAEL CRAIG DORIUM
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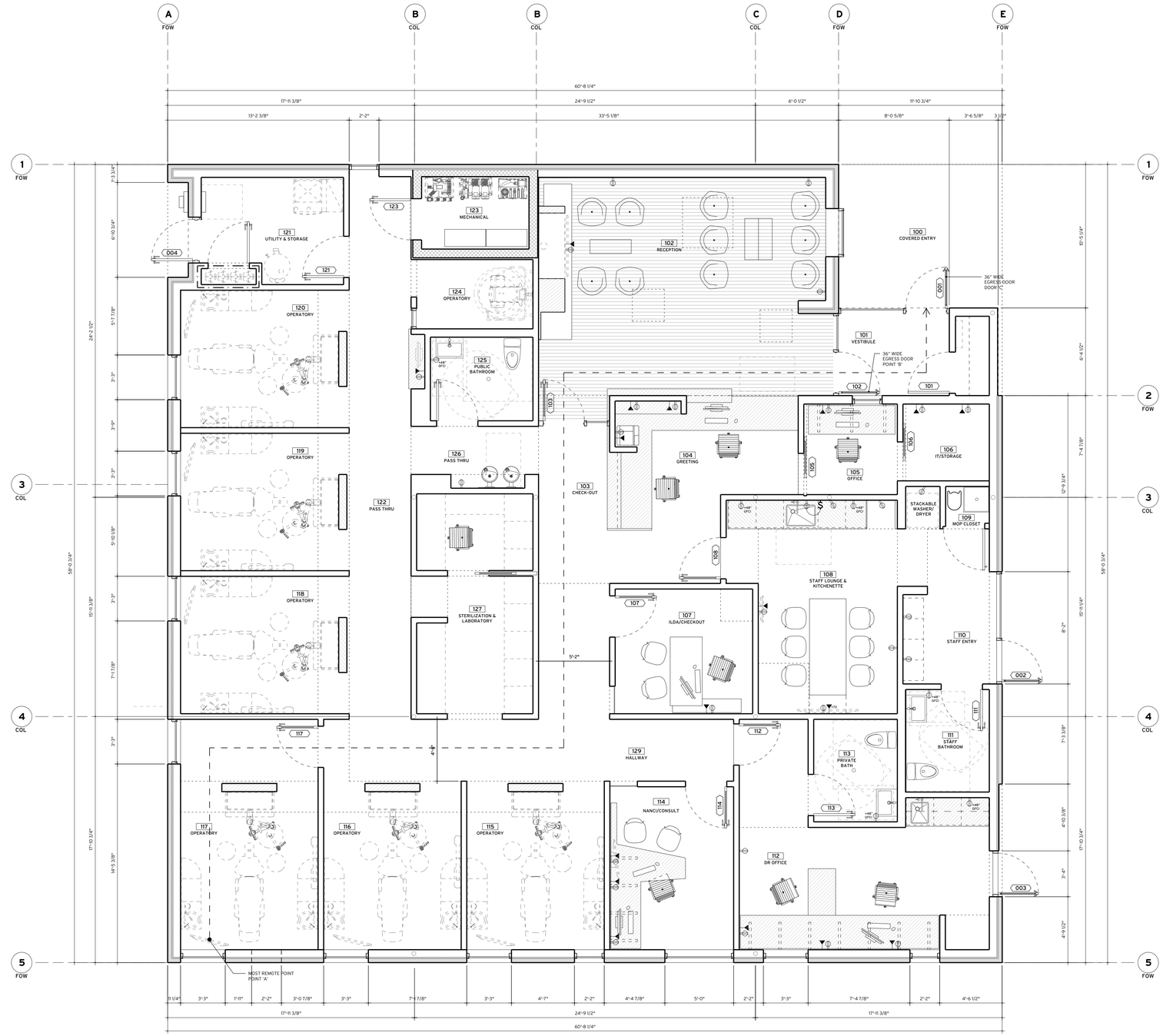
SCALE: AS NOTED

ARCHITECTURAL SITE PLAN

AS101



GENERAL FLOOR PLAN NOTES

1. PROVIDE MICHIGAN BARRIER FREE LEVER TYPE DOOR HARDWARE WITH WALL MOUNTED DOOR STOPS (UNLESS NOTED OTHERWISE).

2. NOTED DIMENSIONS ARE FROM FINISH WALL SURFACE UNLESS OTHERWISE NOTED. WALL AND CEILING SURFACES DRAWN AS ALIGNED ARE TO BE ALIGNED WHEN FINISH FACES ARE APPLIED.

3. CONTRACTOR TO VERIFY ALL EXISTING CONDITIONS AND NOTIFY ARCHITECT OF ANY DISCREPANCIES PRIOR TO ANY WORK.

4. PROVIDE APPROPRIATELY RATED BLOCKING AT ALL MOUNTING LOCATIONS FOR MILLWORK, FURNITURE, & ACCESSORIES BEHIND WALL AS REQUIRED.

5. CONTRACTOR TO SUBMIT MILLWORK SHOP DRAWINGS TO MI/DTW FOR REVIEW/APPROVAL.

6. REFER TO INTERIOR ELEVATIONS FOR WALL CONSTRUCTION HEIGHTS

GRAPHIC KEY

MILLWORK

KEY NOTES

1. 36" WIDE EGRESS DOOR
2. WALL MOUNTED KNOX BOX INSTALLED IN A LOCATION APPROVED BY THE FIRE CODE OFFICIAL.

PRELIMINARY EGRESS TRAVEL SUMMARY

TRAVEL DISTANCE FROM REMOTE POINT 'A':
TO EXIT DOOR 'C': 97'-6"

MAXIMUM COMMON PATH OF EGRESS TRAVEL: 100'

REQUIRED # OF EXITS: 1
OF EXITS PROVIDED: 1

1 FLOOR PLAN
SCALE: 1/4" = 1'-0"

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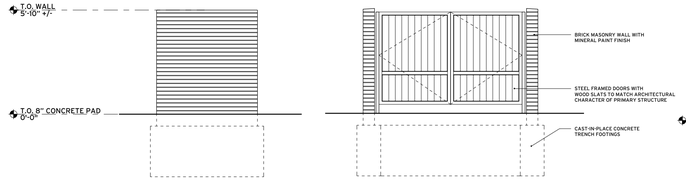
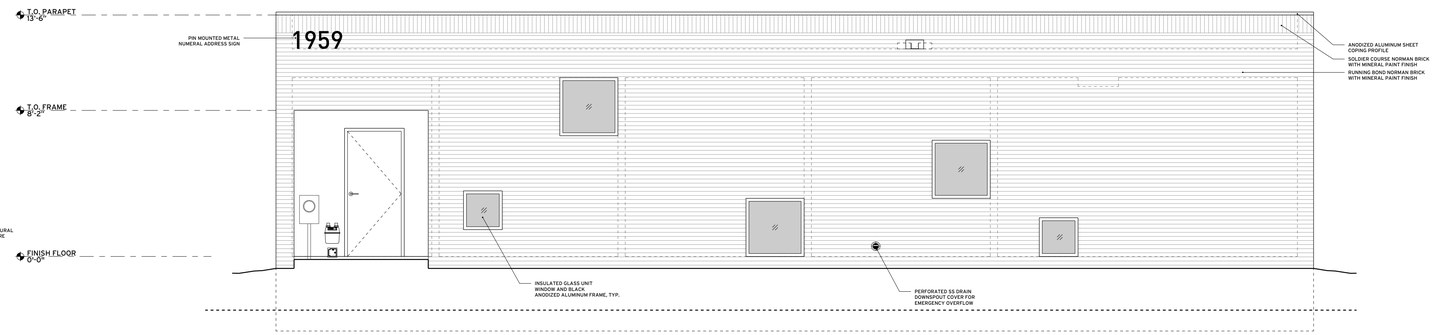
SCALE: AS NOTED

FLOOR PLAN

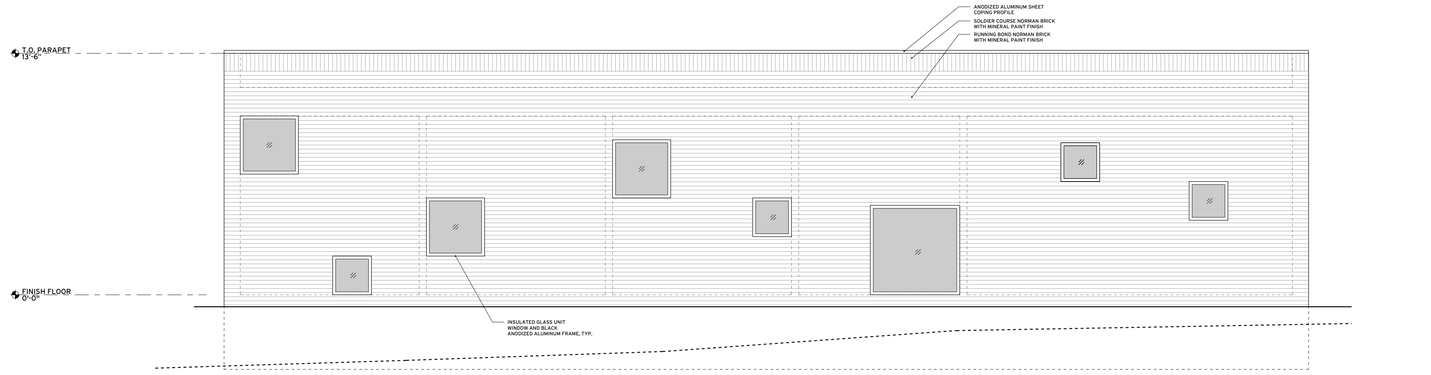
A101



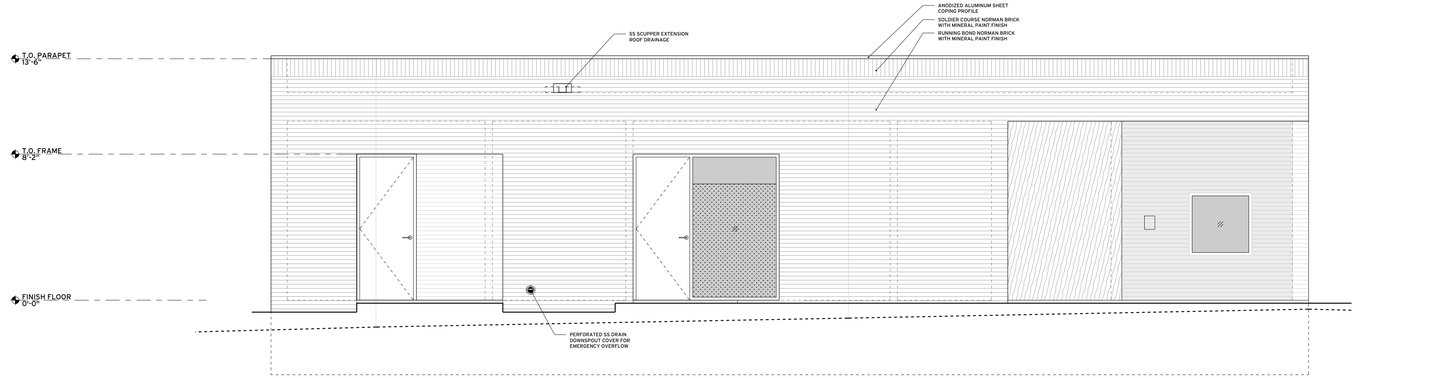
5 DUMPSTER ENCLOSURE
SCALE: 1/4" = 1'-0"



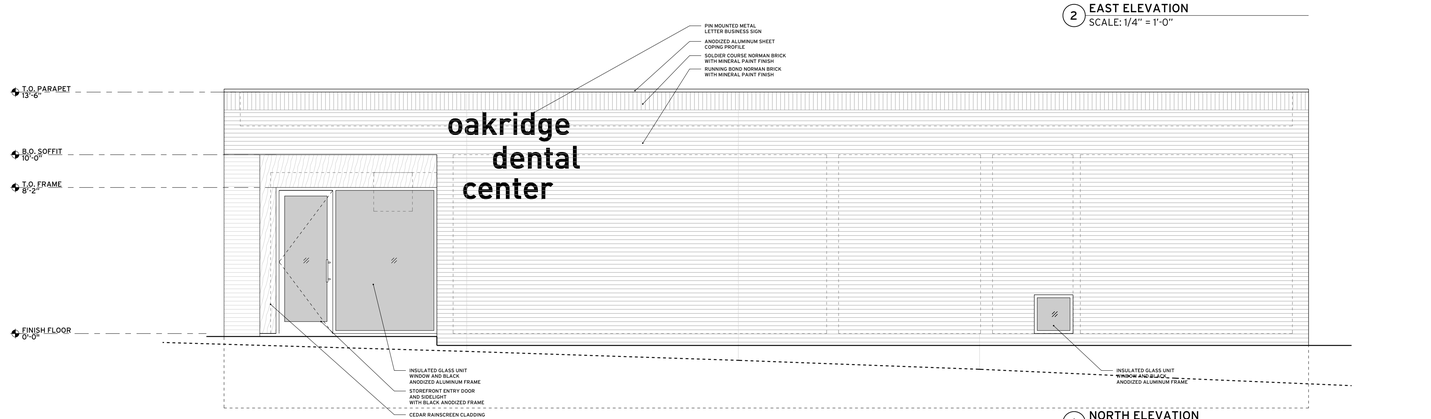
4 WEST ELEVATION
SCALE: 1/4" = 1'-0"



3 SOUTH ELEVATION
SCALE: 1/4" = 1'-0"



2 EAST ELEVATION
SCALE: 1/4" = 1'-0"



1 NORTH ELEVATION
SCALE: 1/4" = 1'-0"

MICHAEL CRAIG CORUM
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PRELIMINARY
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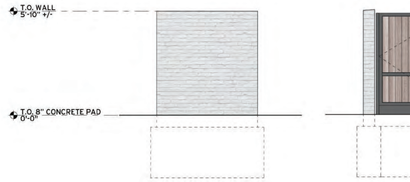
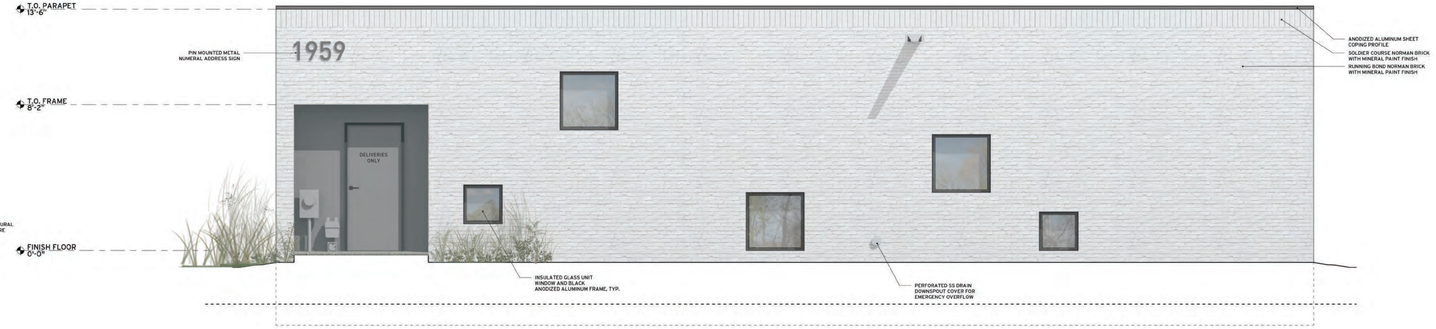
SCALE: AS NOTED

EXTERIOR ELEVATIONS

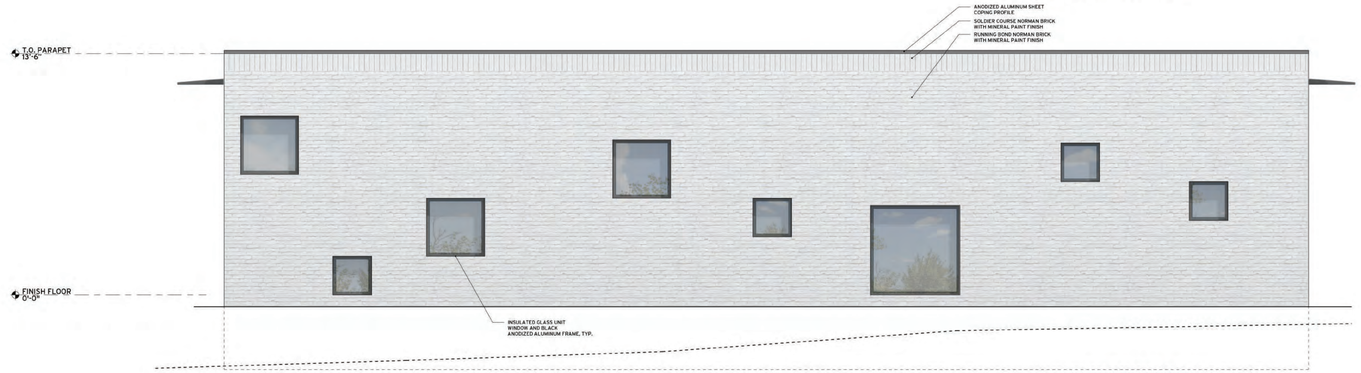
A201



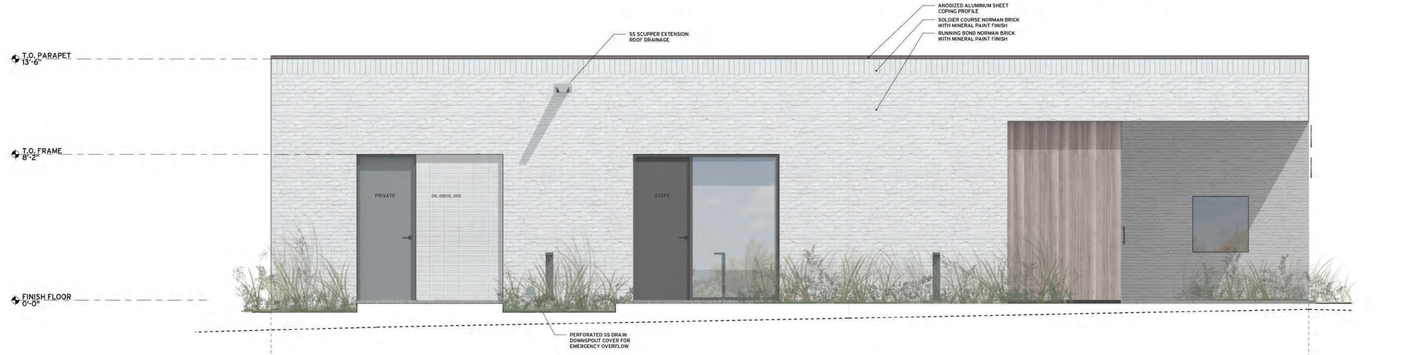
5 DUMPSTER ENCLOSURE
SCALE: 1/4" = 1'-0"



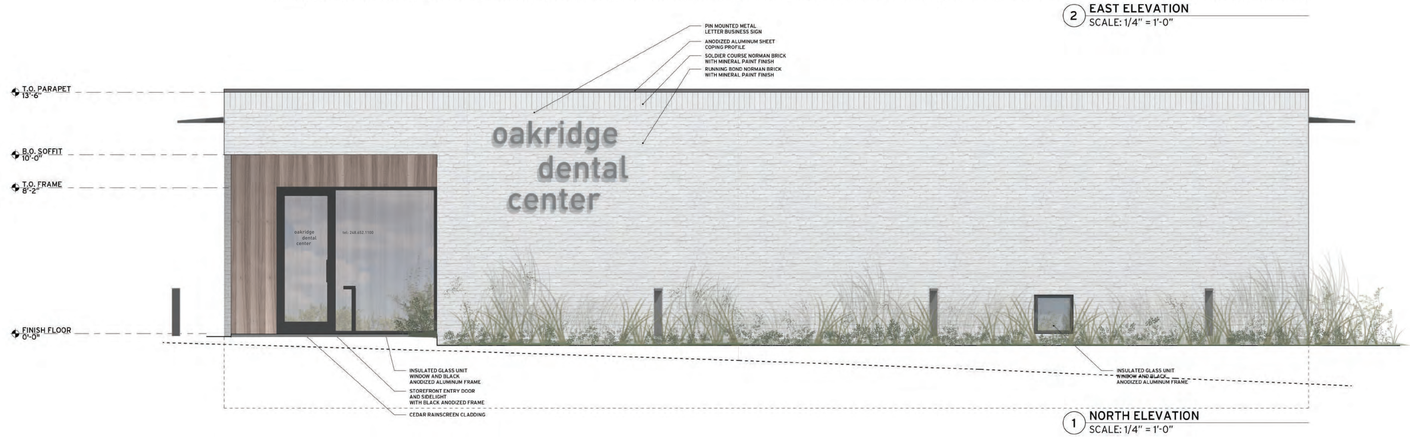
4 WEST ELEVATION
SCALE: 1/4" = 1'-0"



3 SOUTH ELEVATION
SCALE: 1/4" = 1'-0"



2 EAST ELEVATION
SCALE: 1/4" = 1'-0"



1 NORTH ELEVATION
SCALE: 1/4" = 1'-0"

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EXTERIOR ELEVATIONS

A201