

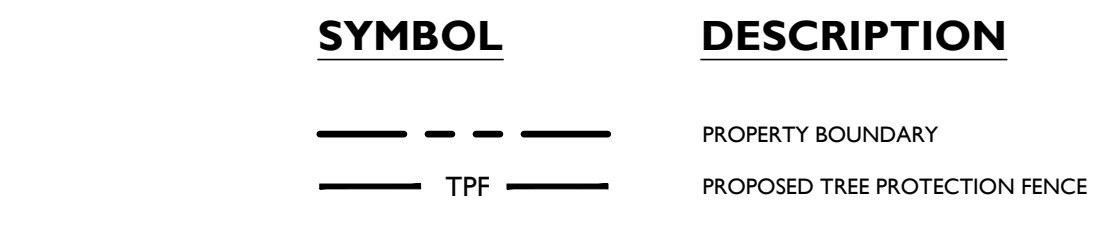
EXISTING TREE SCHEDULE

Tree #	d.b.h.	Canopy		Common Name	Condition	Comments	(N) Not Regulated	(R) Regulated	(S) Specimen
		Radius	Botanical Name				Tree (>6" or s = size, c = condition) listed	Tree (>24" or listed)	Tree (>24" or listed)
7953	7	10'	<i>Malus spp.</i>	Crabapple	fair	- Dead branch(es)		R	
7954	5 / 4 / 3 / 3	10'	<i>Magnolia spp.</i>	Magnolia	fair	- Dead branch(es)	N (s)		S
7955	20	25'	<i>Pinus nigra</i>	Austrian Pine	fair	- Thinning			S
7956	20	25'	<i>Pinus nigra</i>	Austrian Pine	fair	- Thinning			S
7957	11	10'	<i>Morus alba</i>	Weeping Mulberry	fair	- Dead branch(es)		R	
7958	5 / 5 / 4 / 4	10'	<i>Gleditsia triacanthos 'Inermis'</i>	Thornless Honeylocust	fair	- V-shaped crotch(es)	N (s)		
7959	12	15'	<i>Gleditsia triacanthos 'Inermis'</i>	Thornless Honeylocust	good		R		
7960	13	15'	<i>Gleditsia triacanthos 'Inermis'</i>	Thornless Honeylocust	good		R		
7961	7 / 7	10'	<i>Gleditsia triacanthos 'Inermis'</i>	Thornless Honeylocust	good		R		
7962	4	5'	<i>Juglans spp.</i>	Walnut	fair	- Contorted crown	N (s)		
7963	5	10'	<i>Juglans spp.</i>	Walnut	good		N (s)		
7964	15 / 9 / 6	20'	<i>Picea pungens</i>	Colorado Spruce	fair	- Stunted & thinning foliage		R	
7965	6	10'	<i>Morus spp.</i>	Mulberry	fair	- Bent/crooked/bowed leader		R	
7966	5	10'	<i>Morus spp.</i>	Mulberry	fair	- Bent/crooked/bowed leader	N (s)		
7967	10 / 10	10'	<i>Picea pungens</i>	Colorado Spruce	fair	- Stunted & thinning foliage		R	
7968	9	10'	<i>Ulmus pumila</i>	Siberian Elm	fair	- Dead branch(es)	R		
7969	12	15'	<i>Ulmus pumila</i>	Siberian Elm	fair	- Grown into fence/wires	R		
7970	7 / 3	10'	<i>Ulmus pumila</i>	Siberian Elm	fair	- Rot in trunk	R		
7971	10 / 7	15'	<i>Ulmus pumila</i>	Siberian Elm	fair	- Rot in trunk	R		
7972	5	10'	<i>Ulmus pumila</i>	Siberian Elm	fair	- Bent/crooked/bowed leader	N (s)		
7973	3	5'	<i>Ulmus pumila</i>	Siberian Elm	fair	- Rot in trunk	N (s)		
7974	2.5	5'	<i>Ulmus pumila</i>	Siberian Elm	fair	- Rot in trunk	N (s)		
7975	2 / 1 / ...	5'	<i>Ulmus pumila</i>	Siberian Elm	fair	- Rot in trunk	N (s)		
7976	2 / 2 / ...	5'	<i>Acer negundo</i>	Boxelder	poor	- 50% or more dead	N (s, c)		
7977	2	5'	<i>Ulmus pumila</i>	Siberian Elm	fair	- Rot in trunk	N (s)		
7978	5 / 3 / ...	10'	<i>Elaeagnus umbellata</i>	Autumn-olive	fair	- Contorted crown	N (s)		
7979	4	5'	<i>Ulmus pumila</i>	Siberian Elm	fair	- Contorted crown	N (s)		

TOTAL: 13 12 2 (40" dbh)

REMOVED: 0 3 1 (20" dbh)

REMAINING: 13 9 1 (20" dbh)



LANDSCAPE AND BUFFER REQUIREMENTS

CODE SECTION	REQUIRED	PROPOSED
§ 138-12.300	BUFFER REQUIREMENTS, B-2 TO R-2 BUFFER WIDTH W/O 6 FT WALL: 25 FT DECIDUOUS TREES PER 100 LF: 2.5 EA (1.19 LF / 100) = 1.19 (1.19 * 25) = 3 TREES REQUIRED ORNAMENTAL TREES PER 100 LF: 1.5 EA (1.19 * 1.5) = 2 TREES REQUIRED EVERGREEN TREES PER 100 LF: 5 EA (1.19 * 5) = 6 TREES REQUIRED SHRUBS PER 100 LF: 8 EA (1.19 * 8) = 10 SHRUBS REQUIRED	25.0 FT 3 EXISTING TREES 2 EXISTING TREES 6 PROPOSED TREES 10 EXISTING SHRUBS
§ 138-12.301(A)(1)	INTERIOR LANDSCAPING: 5% OF PARKING LOT AREA (15,530 SF) X (0.05) = 777 SF 1 TREE PER 150 SF (777 SF / 150 SF) = 5 TREES	1,272 SF 5 TREES (1 EXISTING)
§ 138-12.301(A)(2)	TERMINAL ISLANDS: MIN. 144 SF, 18 FT LONG 1 TREE PER ISLAND	PROVIDED
§ 138-12.301(A)(3)	INTERIOR ISLANDS: MIN. 160 SF, 8 FT WIDTH 1 TREE PER ISLAND	PROVIDED
§ 138-12.301(B)(1)	PERIMETER LANDSCAPING: 1 DECIDUOUS TREE PER 25 LF (18.5 LF / 25) = 1 TREE 1 ORNAMENTAL TREE PER 35 LF (18.5 LF / 35) = 1 TREE	1 EXISTING TREE 1 EXISTING TREE
§ 138-12.301(B)(2)	PARKING LOT WITHIN 30 FT OF ROW: CONTINUOUS SHRUB HEDGE 30" O.C.	PROVIDED
§ 138-12.304(A)(1)	RIGHT-OF-WAY LANDSCAPING: 1 DECIDUOUS TREE PER 35 LF (120 LF / 35 LF) = 4 TREES	4 TREES (1 EXISTING)
§ 138-12.304(B)	1 ORNAMENTAL TREE PER 60 LF (120 LF / 60 LF) = 2 TREES	2 PROPOSED TREES

PROPOSED PLANT SCHEDULE

DECIDUOUS TREES	CODE	QTY	BOTANICAL NAME	COMMON NAME	SIZE	CONTAINER	SPACING
	GIN	6	GINKGO BILOBA 'AUTUMN GOLD'	AUTUMN GOLD MAIDENHAIR TREE	2.5" - 3" CAL	B&B	AS SHOWN
ORNAMENTAL TREES	CODE	QTY	BOTANICAL NAME	COMMON NAME	SIZE	CONTAINER	SPACING
	QUE	4	MALUS X 'INDIAN SUMMER'	INDIAN SUMMER CRABAPPLE	2.5" - 3" CAL	B&B	AS SHOWN
	CER	2	CERCIS CANADENSIS	EASTERN REDBUD	2.5" - 3" CAL	B&B	AS SHOWN
EVERGREEN TREES	CODE	QTY	BOTANICAL NAME	COMMON NAME	SIZE	CONTAINER	SPACING
	THU	12	THUJA X 'GREEN GIANT'	GREEN GIANT ARBORVITAE	8"-10" (2" DBH MINIMUM FOR REPLACEMENT TREES)	B&B	AS SHOWN
EVERGREEN SHRUBS	CODE	QTY	BOTANICAL NAME	COMMON NAME	SIZE	CONTAINER	SPACING
	ILE	8	ILEX CRENATA 'COMPACTA'	DWARF JAPANESE HOLLY	24" - 30"	B&B	AS SHOWN
	ILEX	16	ILEX GLABRA 'SHAMROCK'	SHAMROCK INKBERRY HOLLY	24" - 30"	POT	AS SHOWN

NOTE: IF ANY DISCREPANCIES OCCUR BETWEEN AMOUNTS SHOWN ON THE LANDSCAPE PLAN AND WITHIN THE PLANT LIST, THE PLAN SHALL DICTATE.

- #### IRRIGATION NOTES:
- IRRIGATION CONTRACTOR TO PROVIDE A DESIGN FOR AN IRRIGATION SYSTEM SEPARATING PLANTING BEDS FROM LAWN AREA. PRIOR TO CONSTRUCTION, DESIGN IS TO BE SUBMITTED TO THE PROJECT LANDSCAPE DESIGNER FOR REVIEW AND APPROVAL. WHERE POSSIBLE, DRIP IRRIGATION AND OTHER WATER CONSERVATION TECHNIQUES SUCH AS RAIN SENSORS SHALL BE IMPLEMENTED. CONTRACTOR TO VERIFY MAXIMUM ON SITE DYNAMIC WATER PRESSURE AVAILABLE MEASURED IN PSI. PRESSURE REDUCING DEVICES OR BOOSTER PUMPS SHALL BE PROVIDED TO MEET SYSTEM PRESSURE REQUIREMENTS. DESIGN TO SHOW ALL VALVES, PIPING, HEADS, BACKFLOW PREVENTION, METERS, CONTROLLERS, AND SLEEVES WITHIN HARDSCAPE AREAS.
 - ALL LANDSCAPE AREAS MUST BE IRRIGATED. WATERING WILL ONLY OCCUR BETWEEN THE HOURS OF 12:00 AM AND 5:00 AM.
 - IRRIGATION OVERSPRAY SHALL NOT BE BROADCAST ONTO CITY PATHWAYS

- #### MAINTENANCE NOTES:
- LANDSCAPING SHALL BE KEPT IN A NEAT, ORDERLY AND HEALTHY GROWING CONDITION, FREE FROM DEBRIS AND REFUSE.
 - PRUNING SHALL BE MINIMAL AT THE TIME OF INSTALLATION, ONLY TO REMOVE DEAD OR DISEASED BRANCHES. SUBSEQUENT PRUNING SHALL ASSURE PROPER MATURATION OF PLANTS TO ACHIEVE THEIR APPROVED PURPOSE.
 - ALL DEAD, DAMAGED, OR DISEASED PLANT MATERIAL SHALL BE REMOVED IMMEDIATELY AND REPLACED WITHIN SIX (6) MONTHS AFTER IT DIES OR IN THE NEXT PLANTING SEASON, WHICHEVER OCCURS FIRST. FOR PURPOSES OF THIS SECTION, 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 CITY MAY NOTIFY PROPERTY OWNERS OF THE NEED TO REPLACE DEAD, DAMAGED, OR DISEASED MATERIAL.
 - THE APPROVED LANDSCAPE PLAN SHALL BE CONSIDERED A PERMANENT RECORD AND INTEGRAL PART OF THE SITE PLAN APPROVAL. UNLESS OTHERWISE APPROVED IN ACCORDANCE WITH THE AFORESAID PROCEDURES, ANY REVISIONS TO OR REMOVAL OF PLANT MATERIALS, OR NON-COMPLIANCE WITH THE MAINTENANCE REQUIREMENTS OF THIS SECTION 138-12.109 WILL PLACE THE PARCEL IN NON-COMPLIANCE WITH THE APPROVED LANDSCAPE PLAN AND BE A VIOLATION OF THIS ORDINANCE.
 - IF PROTECTED TREES ARE DAMAGED, A FINE SHALL BE ISSUED ON AN INCH-BY-INCH BASIS AT A MONETARY RATE AS DEFINED BY THE FORESTRY DEPARTMENT.

- #### LANDSCAPING NOTES:
- THE CONTRACTOR SHALL RESTORE ALL DISTURBED GRASS AND LANDSCAPED AREAS TO MATCH EXISTING CONDITIONS UNLESS INDICATED OTHERWISE WITHIN THE PLAN SET.
 - THE CONTRACTOR SHALL RESTORE ALL DISTURBED LAWN AREAS WITH A MINIMUM 4 INCH LAYER OF TOPSOIL AND SEED.
 - THE CONTRACTOR SHALL RESTORE MULCH AREAS WITH A MINIMUM 3 INCH LAYER OF MULCH.
 - THE MAXIMUM SLOPE ALLOWABLE IN LANDSCAPE RESTORATION AREAS SHALL BE AT LEAST 10' FROM THE EDGE OF THE PUBLIC WALKWAY. NO TREES OR SHRUBS SHALL BE PLANTED IN 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 POINT 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 UNIT 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. THE ABOVE REQUIREMENTS ARE INCORPORATED INTO THE PLAN.
 - PRIOR TO THE RELEASE OF THE PERFORMANCE BOND, THE CITY OF ROCHESTER HILLS MUST INSPECT ALL LANDSCAPING PLANTINGS.

Include Road and Pathway Sight Distance Lines per the attached City Details.

7 05/28/2021 JRC/ECH
6 02/09/2021 JRC/ECH
5 12/28/2021 JRC/ECH
4 09/08/2021 RAC/ECH
3 08/20/2021 RAC/ECH
2 08/02/2021 JRC/ECH
1 07/08/2021 JRC/ECH

ISSUE DATE BY DESCRIPTION

NOT APPROVED FOR CONSTRUCTION

Detroit, MI • New York, NY • Boston, MA
Princeton, NJ • Tampa, FL • Rutherford, NJ
www.stonefielddesign.com

1360 WALTON BLVD

PROPOSED STARBUCKS

PARCEL ID: 15-09-476-030
1360 WALTON BOULEVARD
CITY OF ROCHESTER HILLS
OAKLAND COUNTY, MICHIGAN

CITY FILE #21-030 SECTION #9

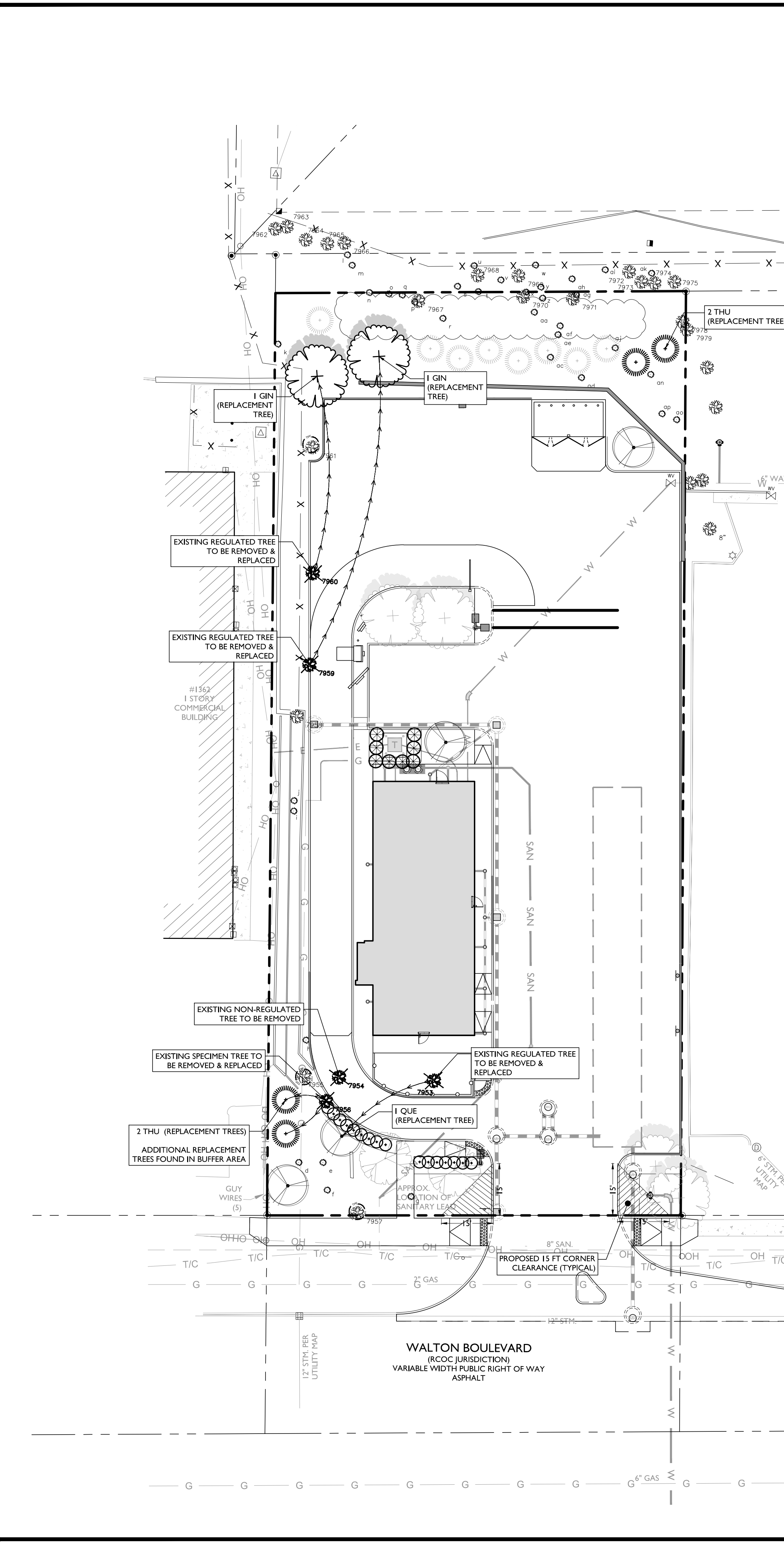
SCALE: 1" = 20' PROJECT ID: DET-200412

TITLE:

LANDSCAPING PLAN

DRAWING:

C-10

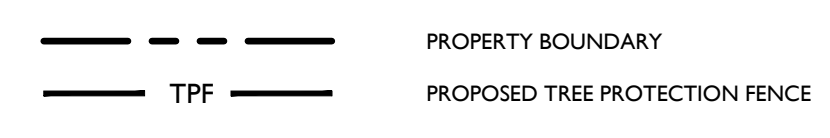


EXISTING TREE SCHEDULE

Tree #	d.b.h.	Canopy		Common Name	Condition	Comments	(N) Not Regulated (s = size, c = condition)	(R) Regulated Tree (>6" or listed)	(S) Specimen Tree (>24" or listed)
		Radius	Botanical Name						
7953	7	10'	<i>Malus spp.</i>	Crabapple	fair	- Dead branch(es)		R	
7954	5 / 4 / 3 / 3	10'	<i>Magnolia spp.</i>	Magnolia	fair	- Dead branch(es)	N (s)		S
7955	20	25'	<i>Pinus nigra</i>	Austrian Pine	fair	- Thinning			S
7956	20	25'	<i>Pinus nigra</i>	Austrian Pine	fair	- Thinning			S
7957	11	10'	<i>Morus alba</i>	Weeping Mulberry	fair	- Dead branch(es)		R	
7958	5 / 5 / 4 / 4	10'	<i>Gleditsia triacanthos 'Inermis'</i>	Thornless Honeylocust	fair	- V-shaped crotch(es)	N (s)		
7959	12	15'	<i>Gleditsia triacanthos 'Inermis'</i>	Thornless Honeylocust	good		R		
7960	13	15'	<i>Gleditsia triacanthos 'Inermis'</i>	Thornless Honeylocust	good		R		
7961	7 / 7	10'	<i>Gleditsia triacanthos 'Inermis'</i>	Thornless Honeylocust	good		R		
7962	4	5'	<i>Juglans spp.</i>	Walnut	fair	- Contorted crown	N (s)		
7963	5	10'	<i>Juglans spp.</i>	Walnut	good		N (s)		
7964	15 / 9 / 6	20'	<i>Picea pungens</i>	Colorado Spruce	fair	- Stunted & thinning foliage		R	
7965	6	10'	<i>Morus spp.</i>	Mulberry	fair	- Bent/crooked/bowed leader		R	
7966	5	10'	<i>Morus spp.</i>	Mulberry	fair	- Bent/crooked/bowed leader	N (s)		
7967	10 / 10	10'	<i>Picea pungens</i>	Colorado Spruce	fair	- Stunted & thinning foliage		R	
7968	9	10'	<i>Ulmus pumila</i>	Siberian Elm	fair	- Dead branch(es)	R		
7969	12	15'	<i>Ulmus pumila</i>	Siberian Elm	fair	- Grown into fence/wires	R		
7970	7 / 3	10'	<i>Ulmus pumila</i>	Siberian Elm	fair	- Rot in trunk	R		
7971	10 / 7	15'	<i>Ulmus pumila</i>	Siberian Elm	fair	- Rot in trunk	R		
7972	5	10'	<i>Ulmus pumila</i>	Siberian Elm	fair	- Bent/crooked/bowed leader	N (s)		
7973	3	5'	<i>Ulmus pumila</i>	Siberian Elm	fair	- Rot in trunk	N (s)		
7974	2.5	5'	<i>Ulmus pumila</i>	Siberian Elm	fair	- Rot in trunk	N (s)		
7975	2 / 1 / ...	5'	<i>Ulmus pumila</i>	Siberian Elm	fair	- Rot in trunk	N (s)		
7976	2 / 2 / ...	5'	<i>Acer negundo</i>	Boxelder	poor	- 50% or more dead	N (s, c)		
7977	2	5'	<i>Ulmus pumila</i>	Siberian Elm	fair	- Rot in trunk	N (s)		
7978	5 / 3 / ...	10'	<i>Elaeagnus umbellata</i>	Autumn-olive	fair	- Contorted crown	N (s)		
7979	4	5'	<i>Ulmus pumila</i>	Siberian Elm	fair	- Contorted crown	N (s)		

TOTAL: 13 12 2 (40" dbh)
REMOVED: 0 3 1 (20" dbh)
REMAINING: 13 9 1 (20" dbh)

SYMBOL DESCRIPTION



TREE MITIGATION REQUIREMENTS

CODE SECTION	REQUIRED	PROPOSED
§ 126-327(2)	MINIMUM PRESERVATION PERCENTAGE: 40% PRESERVATION OF REGULATED TREES 12 REGULATED TREES 12 TREES X 0.40 = 5 REGULATED TREES TO BE PRESERVED	9 REGULATED TREES TO BE PRESERVED (75%)
§ 126-397	REGULATED TREE REPLACEMENT: 1:1 3 TREES REMOVED = 3 TREES REQUIRED	3 TREES
§ 126-397(3)	SPECIMEN TREE REPLACEMENT: 50% OF TOTAL DBH TO BE REPLACED (20" TOTAL DBH) X (0.50) = 10" DBH 1 SPECIMEN TREE PRESERVED = 2" CREDIT (10" DBH) X (2" CREDIT) = 8" DBH REQUIRED	8" DBH (4 TREES @ 2" EACH)

LANDSCAPE AND BUFFER REQUIREMENTS

CODE SECTION	REQUIRED	PROPOSED
§ 138-12.300	BUFFER REQUIREMENTS, B-2 TO R-2 BUFFER WIDTH W/O 6 FT WALL: 25 FT DECIDUOUS TREES PER 100 LF: 2.5 EA (1.19 * 100) = 119 (1.19 * 25) = 3 TREES REQUIRED ORNAMENTAL TREES PER 100 LF: 1.5 EA (1.19 * 1.5) = 2 TREES REQUIRED EVERGREEN TREES PER 100 LF: 5 EA (1.19 * 5) = 6 TREES REQUIRED SHRUBS PER 100 LF: 8 EA (1.19 * 8) = 10 SHRUBS REQUIRED	25.0 FT 3 EXISTING TREES 2 EXISTING TREES 6 PROPOSED TREES 10 EXISTING SHRUBS
§ 138-12.301(A)(1)	INTERIOR LANDSCAPING: 5% OF PARKING LOT AREA (15,530 SF) X (0.05) = 777 SF 1 TREE PER 150 SF (777 SF / 150 SF) = 5 TREES	1,272 SF 5 TREES (1 EXISTING)
§ 138-12.301(A)(2)	TERMINAL ISLANDS: MIN. 144 SF, 18 FT LONG 1 TREE PER ISLAND	PROVIDED
§ 138-12.301(A)(3)	INTERIOR ISLANDS: MIN. 160 SF, 8 FT WIDTH 1 TREE PER ISLAND	PROVIDED
§ 138-12.301(B)(1)	PERIMETER LANDSCAPING: 1 DECIDUOUS TREE PER 25 LF (18.5 LF / 25) = 1 TREE 1 ORNAMENTAL TREE PER 35 LF (18.5 LF / 35) = 1 TREE	1 EXISTING TREE 1 EXISTING TREE
§ 138-12.301(B)(2)	PARKING LOT WITHIN 30 FT OF ROW: CONTINUOUS SHRUB HEDGE 30" O.C.	PROVIDED
§ 138-12.304(A)(1)	RIGHT-OF-WAY LANDSCAPING: 1 DECIDUOUS TREE PER 35 LF (120 LF / 35 LF) = 4 TREES	4 TREES (1 EXISTING)
§ 138-12.304(B)	1 ORNAMENTAL TREE PER 60 LF (120 LF / 60 LF) = 2 TREES	2 PROPOSED TREES

PROPOSED PLANT SCHEDULE

DECIDUOUS TREES	CODE	QTY	BOTANICAL NAME	COMMON NAME	SIZE	CONTAINER	SPACING
	GIN	6	GINKKO BILOBA 'AUTUMN GOLD'	AUTUMN GOLD MAIDENHAIR TREE	2.5" - 3" CAL	B&B	AS SHOWN
ORNAMENTAL TREES	CODE	QTY	BOTANICAL NAME	COMMON NAME	SIZE	CONTAINER	SPACING
	QUE	4	MALLUS X 'INDIAN SUMMER'	INDIAN SUMMER CRABAPPLE	2.5" - 3" CAL	B&B	AS SHOWN
	CER	2	CERCIS CANADENSIS	EASTERN REDBUD	2.5" - 3" CAL	B&B	AS SHOWN
EVERGREEN TREES	CODE	QTY	BOTANICAL NAME	COMMON NAME	SIZE	CONTAINER	SPACING
	THU	12	THUJA X 'GREEN GIANT'	GREEN GIANT ARBORVITAE	8"-10" (2" DBH MINIMUM FOR REPLACEMENT TREES)	B&B	AS SHOWN
EVERGREEN SHRUBS	CODE	QTY	BOTANICAL NAME	COMMON NAME	SIZE	CONTAINER	SPACING
	ILE	8	ILEX CRENATA 'COMPACTA'	DWARF JAPANESE HOLLY	24" - 30"	B&B	AS SHOWN
	ILEX	16	ILEX GLABRA 'SHAMROCK'	SHAMROCK INKBERRY HOLLY	24" - 30"	POT	AS SHOWN

NOTE: IF ANY DISCREPANCIES OCCUR BETWEEN AMOUNTS SHOWN ON THE LANDSCAPE PLAN AND WITHIN THE PLANT LIST, THE PLAN SHALL DICTATE.

IRRIGATION NOTES:

- IRRIGATION CONTRACTOR TO PROVIDE A DESIGN FOR AN IRRIGATION SYSTEM SEPARATING PLANTING BEDS FROM LAWN AREA. PRIOR TO CONSTRUCTION, DESIGN IS TO BE SUBMITTED TO THE PROJECT LANDSCAPE DESIGNER FOR REVIEW AND APPROVAL. WHERE POSSIBLE, DRIP IRRIGATION AND OTHER WATER CONSERVATION TECHNIQUES SUCH AS RAIN SENSORS SHALL BE IMPLEMENTED. CONTRACTOR TO VERIFY MAXIMUM ON SITE DYNAMIC WATER PRESSURE AVAILABLE MEASURED IN PSI. PRESSURE REDUCING DEVICES OR BOOSTER PUMPS SHALL BE PROVIDED TO MEET SYSTEM PRESSURE REQUIREMENTS. DESIGN TO SHOW ALL VALVES, PIPING, HEADS, BACKFLOW PREVENTION, METERS, CONTROLLERS, AND SLEEVES WITHIN HARDSCAPE AREAS.
- ALL LANDSCAPE AREAS MUST BE IRRIGATED. WATERING WILL ONLY OCCUR BETWEEN THE HOURS OF 12:00 AM AND 5:00 AM.
- IRRIGATION OVERSPRAY SHALL NOT BE BROADCAST ONTO CITY PATHWAYS

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- IF PROTECTED TREES ARE DAMAGED, A FINE SHALL BE ISSUED ON AN INCH-BY-INCH BASIS AT A MONETARY RATE AS DEFINED BY THE FORESTRY DEPARTMENT.

LANDSCAPING NOTES

- THE CONTRACTOR SHALL RESTORE ALL DISTURBED GRASS AND LANDSCAPED AREAS TO MATCH EXISTING CONDITIONS UNLESS INDICATED OTHERWISE WITHIN THE PLAN SET.
- THE CONTRACTOR SHALL RESTORE ALL DISTURBED LAWN AREAS WITH A MINIMUM 4 INCH LAYER OF TOPSOIL AND SEED.
- THE CONTRACTOR SHALL RESTORE MULCH AREAS WITH A MINIMUM 3 INCH LAYER OF MULCH.
- THE MAXIMUM SLOPE ALLOWABLE IN LANDSCAPE RESTORATION AREAS SHALL BE PLANTED AT LEAST 10' FROM THE EDGE OF THE PUBLIC WALKWAY. NO TREES OR SHRUBS MAY BE PLANTED WITHIN THE TRIANGULAR AREA FORMED AT THE INTERSECTION OF ANY DRIVEWAY WITH A PUBLIC WALKWAY AT A DISTANCE ALONG EACH LINE OF 15' 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 POINT 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 UNIT 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. THE ABOVE REQUIREMENTS ARE INCORPORATED INTO THE PLAN.
- PRIOR TO THE RELEASE OF THE PERFORMANCE BOND, THE CITY OF ROCHESTER HILLS MUST INSPECT ALL LANDSCAPING PLANTINGS.

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STARBUCKS
 1360 WALTON BLVD
 PROPOSED STARBUCKS
 PARCEL ID: 15-09-476-030
 1360 WALTON BOULEVARD
 CITY OF ROCHESTER HILLS
 OAKLAND COUNTY, MICHIGAN

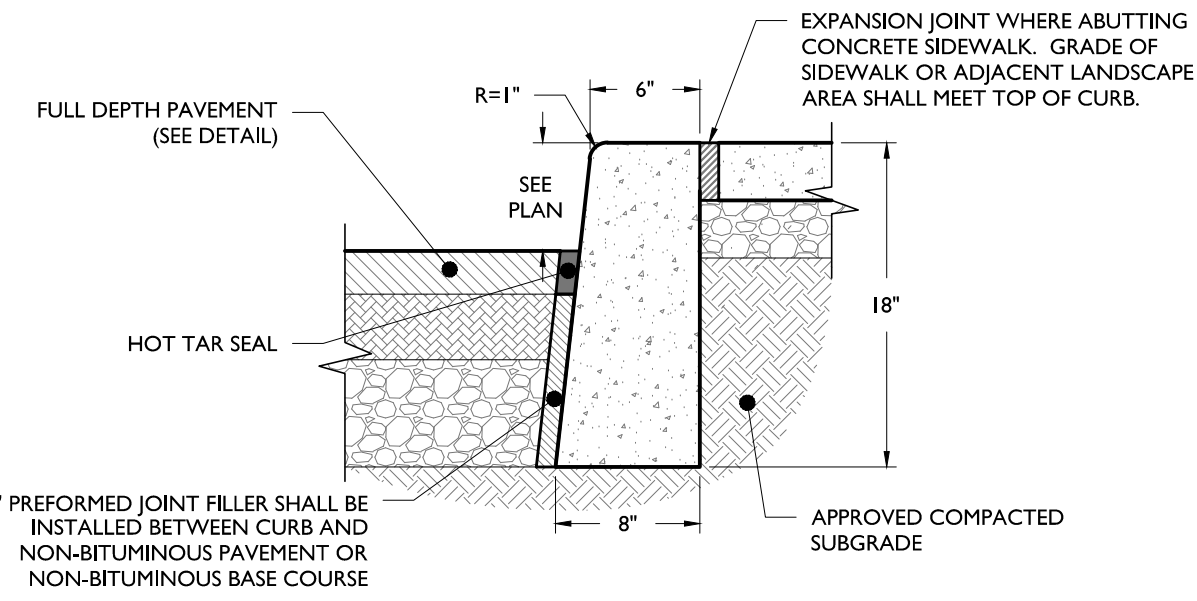
STONEFIELD
 engineering & design
 CITY FILE #21-030 SECTION #9
 SCALE: 1" = 20' PROJECT ID: DET-200412
 TITLE:
TREE REPLACEMENT PLAN
 DRAWING:
C-11

SUBMISSION FOR SITE PLAN APPROVAL
 REVISED PER CITY SECOND SITE PLAN REVIEW
 REVISED PER CITY SITE PLAN REVIEW
 SUBMISSION FOR SITE PLAN APPROVAL
 REVISED PER FIRE DEPARTMENT COMMENTS
 REVISED PER CITY COMMENTS
 SUBMISSION FOR PRE-APPLICATION MEETING

7/6/2022 JRC/ECH
 02/09/2022 JRC/ECH
 12/28/2021 JRC/ECH
 09/08/2021 RAC/ECH
 08/20/2021 RAC/ECH
 08/02/2021 JRC/ECH
 07/08/2021 JRC/ECH

ISSUE DATE BY DESCRIPTION

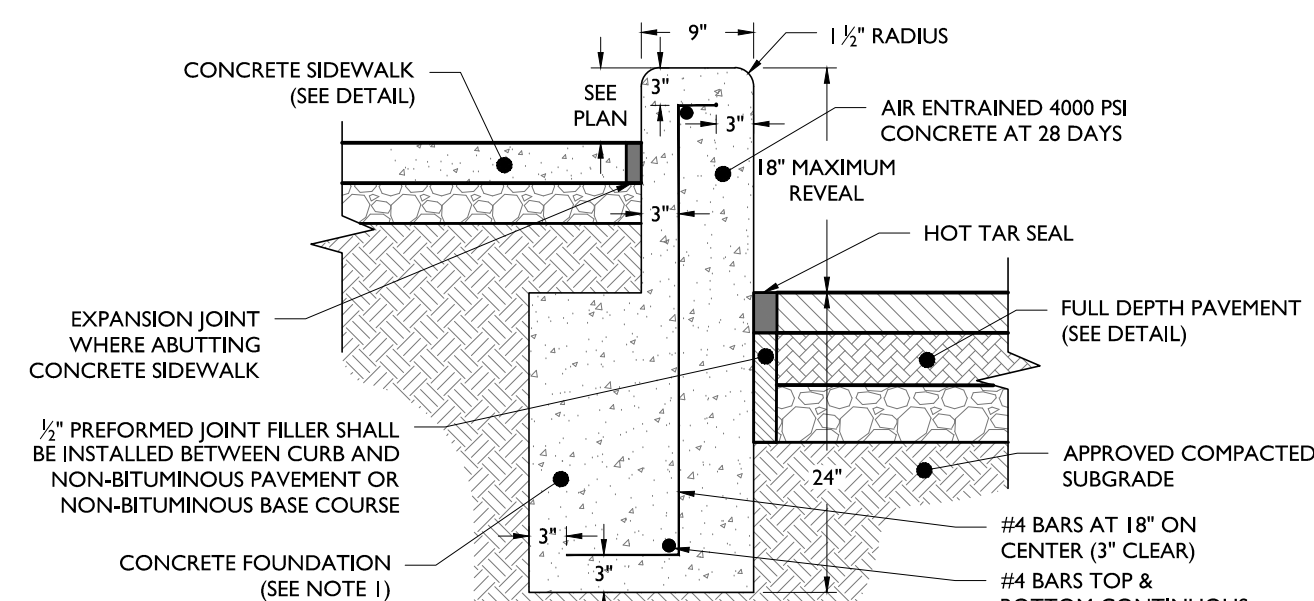
NOT APPROVED FOR CONSTRUCTION



CONCRETE CURB DETAIL

NOT TO SCALE

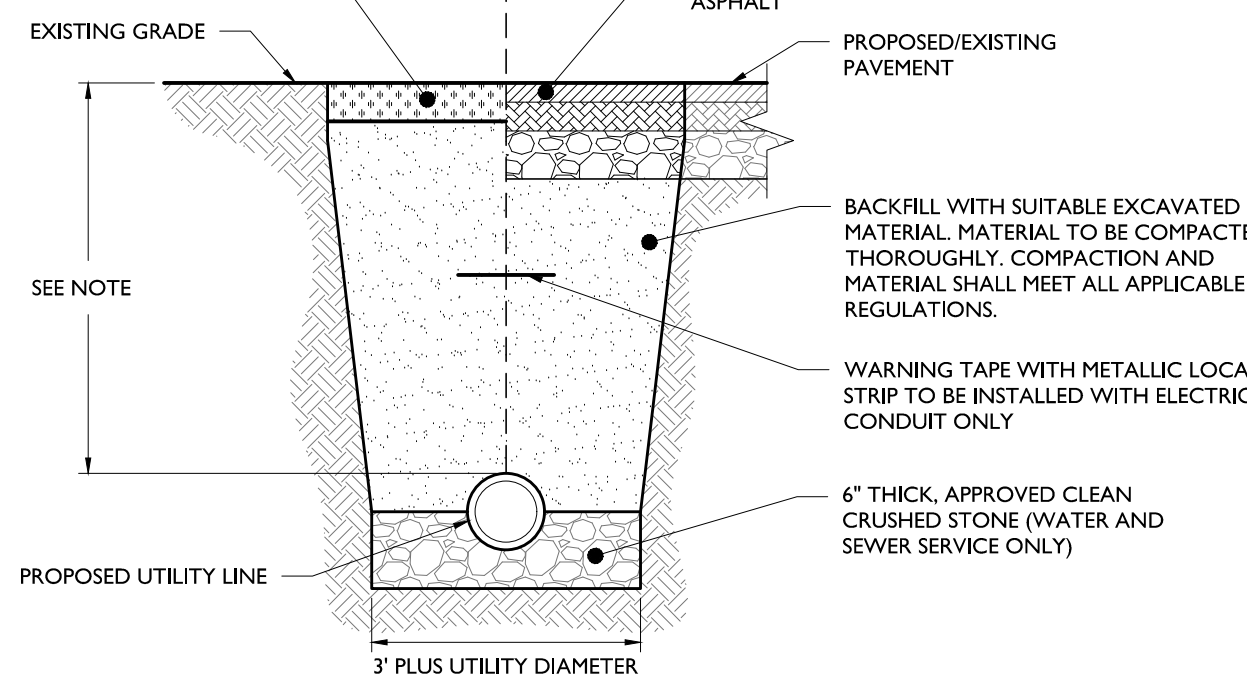
- NOTES:
1. CONCRETE SHALL BE 3500 PSI AT 28 DAYS, AIR-ENTRAINED.
 2. TRANSVERSE EXPANSION JOINTS SHALL BE PROVIDED AT 20 FOOT INTERVALS WITH PRE-MOLDED, BITUMINOUS JOINT FILLER, RECESSED 1/2" FROM SURFACE.
 3. HALF DEPTH CONTRACTION JOINTS SHALL BE PROVIDED AT 10 FOOT INTERVALS.
 4. 18" CURB DEPTH SHALL BE MAINTAINED AT DEPRESSED OR FLUSH CURBED AREAS.



EXTENDED CONCRETE CURB DETAIL

NOT TO SCALE

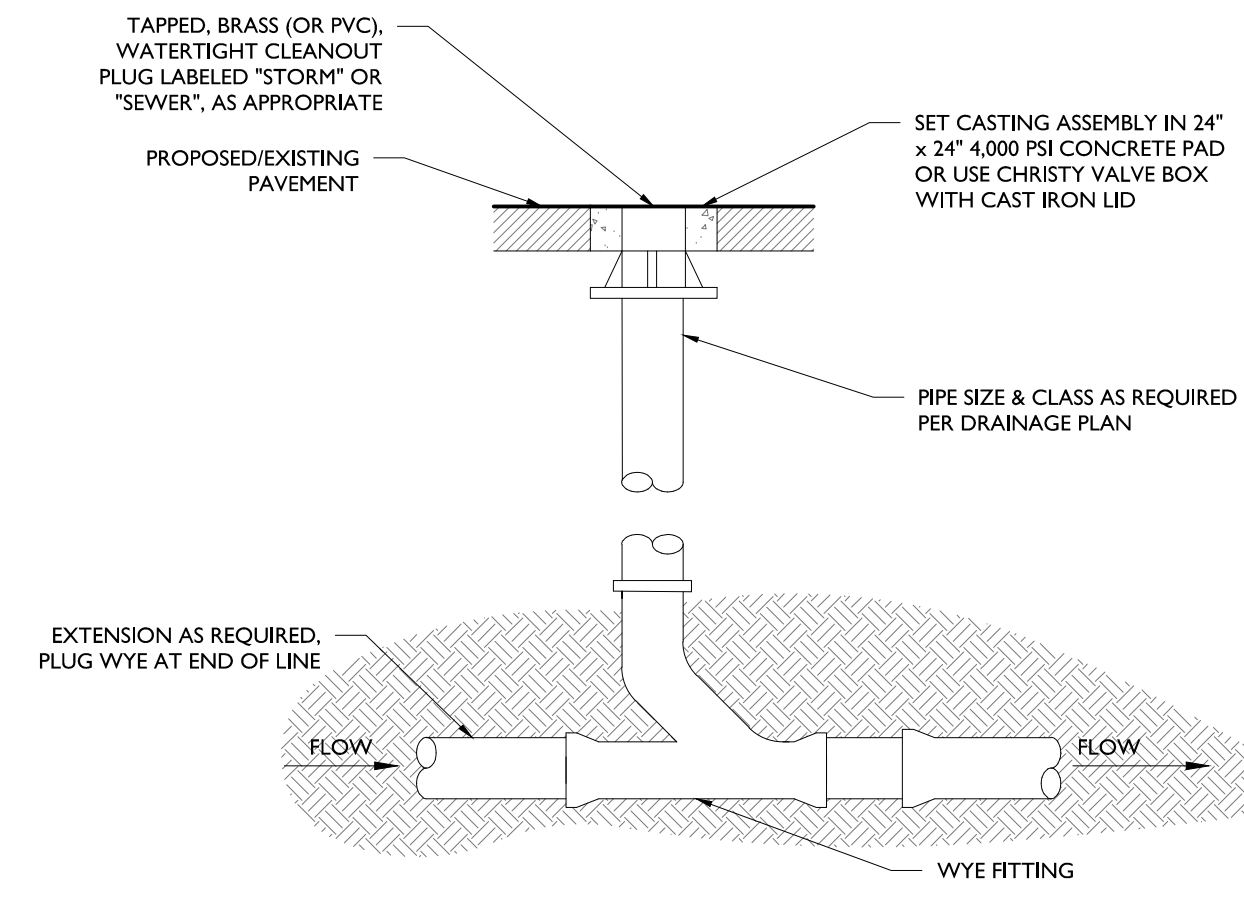
- NOTES:
1. CONCRETE SHALL BE 4000 PSI AT 28 DAYS, AIR-ENTRAINED.
 2. 1/2" EXPANSION JOINTS WITH WATER SEAL SHALL BE PROVIDED AT 50 FOOT INTERVALS WITH PRE-MOLDED, BITUMINOUS JOINT FILLER, RECESSED 1/2" FROM SURFACE. LONGITUDINAL REBAR TO BE CUT AT EXPANSION JOINTS.
 3. 1" DEEP AND 1/2" WIDE TOOLED CONTRACTION JOINTS SHALL BE PROVIDED AT MID-POINT BETWEEN EXPANSION JOINTS, OR 30 FOOT MAX.



UTILITY TRENCH DETAIL

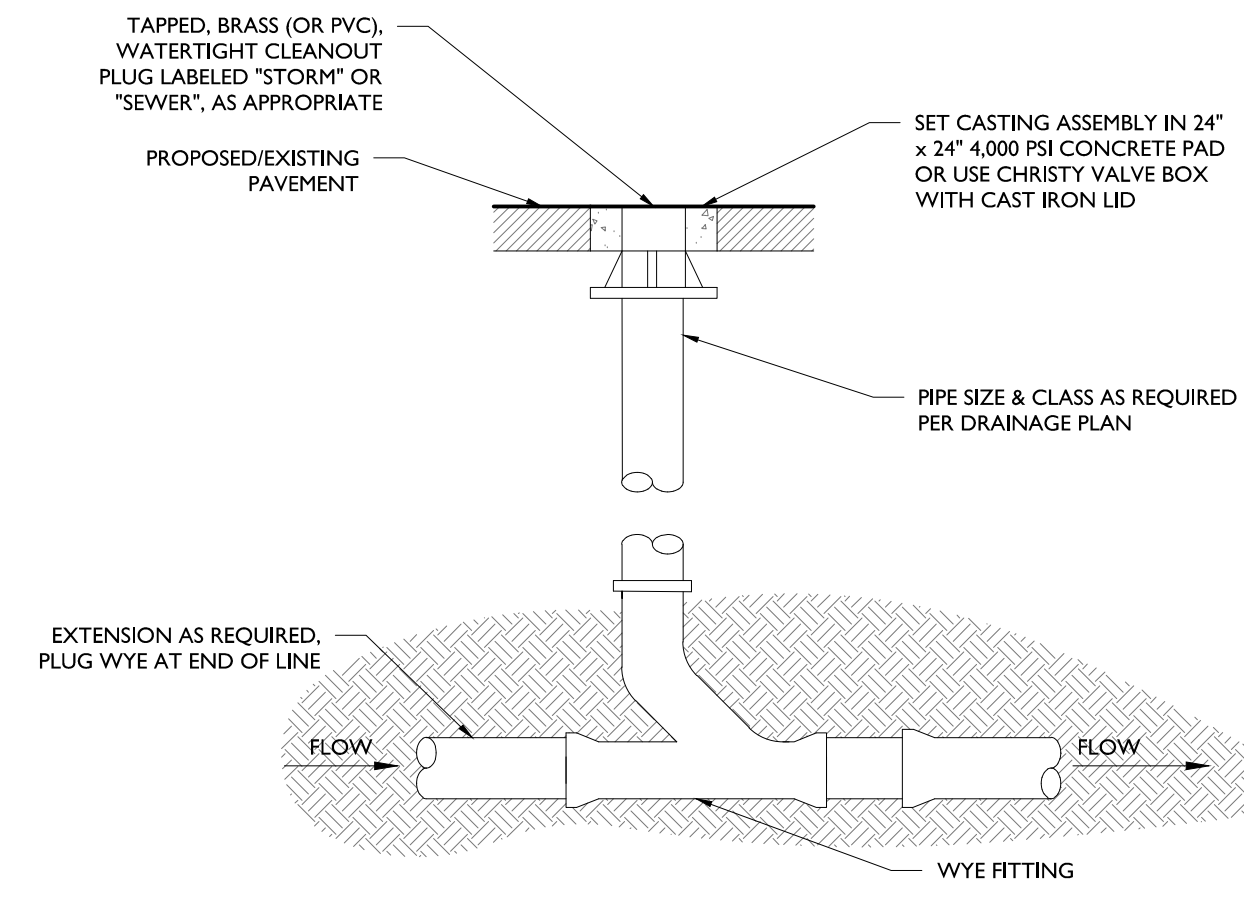
NOT TO SCALE

- NOTE:
- MINIMUM PIPE COVER SHALL BE AS FOLLOWS:
- ELECTRIC SERVICE - PER APPLICABLE UTILITY AUTHORITY
 - GAS SERVICE - PER APPLICABLE UTILITY AUTHORITY
 - SEWER SERVICE - 36" MINIMUM
 - WATER SERVICE - 48" MINIMUM



HARDSCAPE CLEAN-OUT

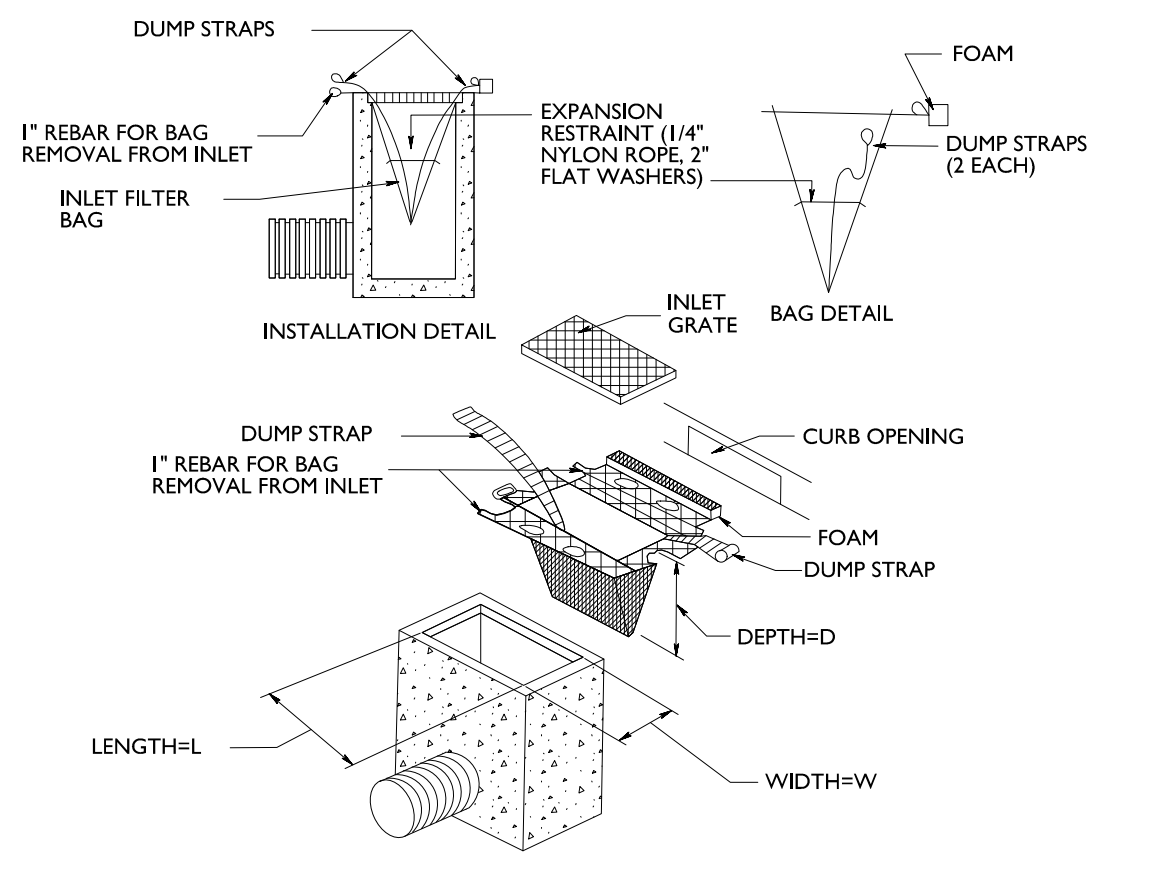
NOT TO SCALE



TREE PROTECTION DETAIL

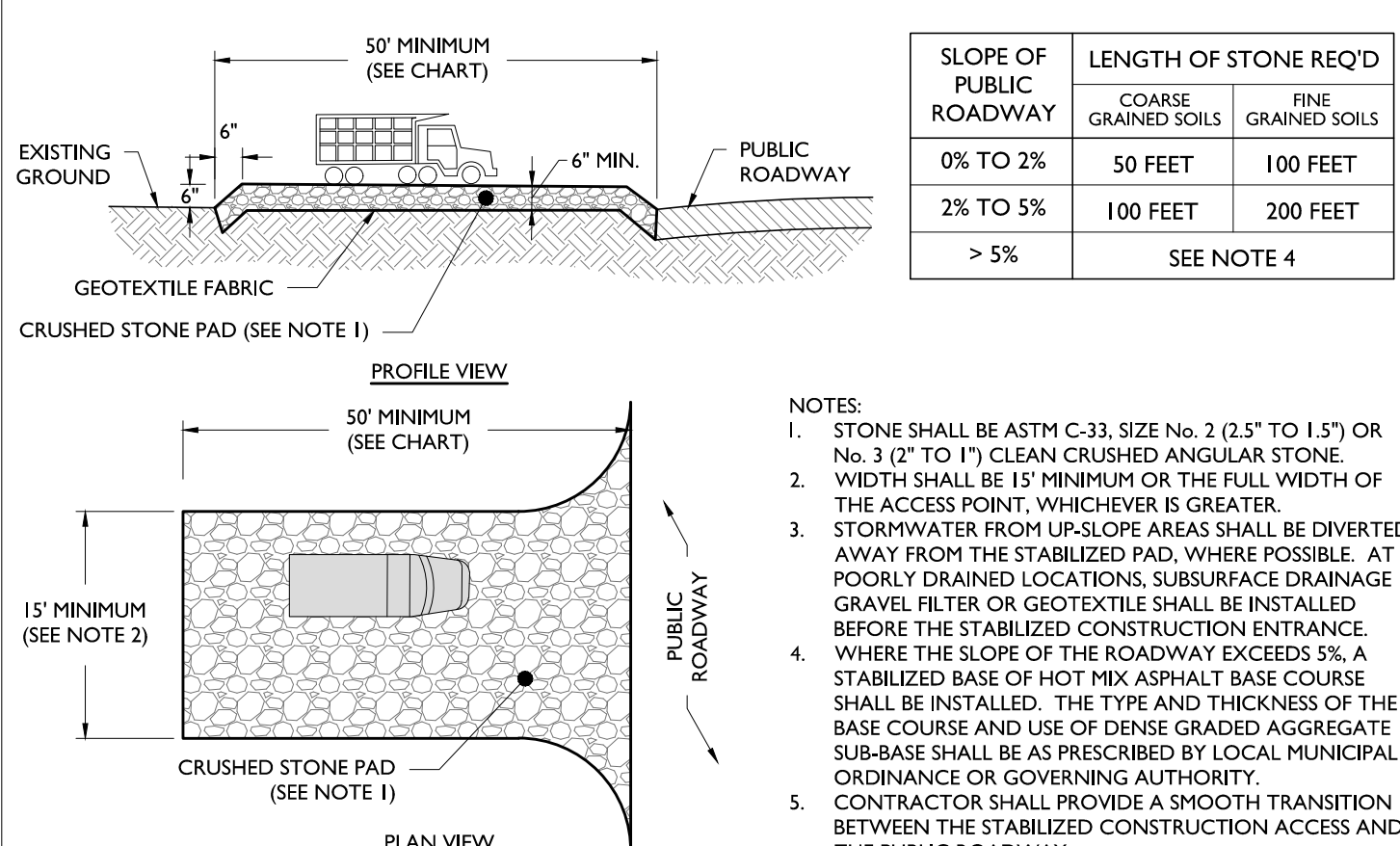
NOT TO SCALE

- NOTES:
1. SNOW FENCING IS TO BE 4'-0" HIGH AND SELF SUPPORTED.
 2. DO NOT STOCKPILE MATERIALS OR STORE EQUIPMENT WITHIN THE TREE PROTECTION FENCING.
 3. SNOW FENCE TO BE INSTALLED AT DRIP LINE OF EXISTING TREE OR TREE CLUSTER TO BE PROTECTED OR NO CLOSER THAN 6' FROM TREE TRUNK IF NECESSARY.
 4. IF THE PROJECT AREA ENCOMPASSES A PORTION OF THE DRIP LINE OF THE TREE, NO MORE THAN ONE THIRD OF THE OF THE TOTAL AREA OF WITHIN THE DRIP LINE SHOULD BE DISTURBED BY CONSTRUCTION OR REGRADING AND A 3" THICK LAYER OF MULCH SHALL BE INSTALLED OVER THE AREA OF THE DRIP LINE WHICH IS NOT PROTECTED BY FENCING TO PROVIDE A CUSHION.



INLET FILTER BAG DETAIL

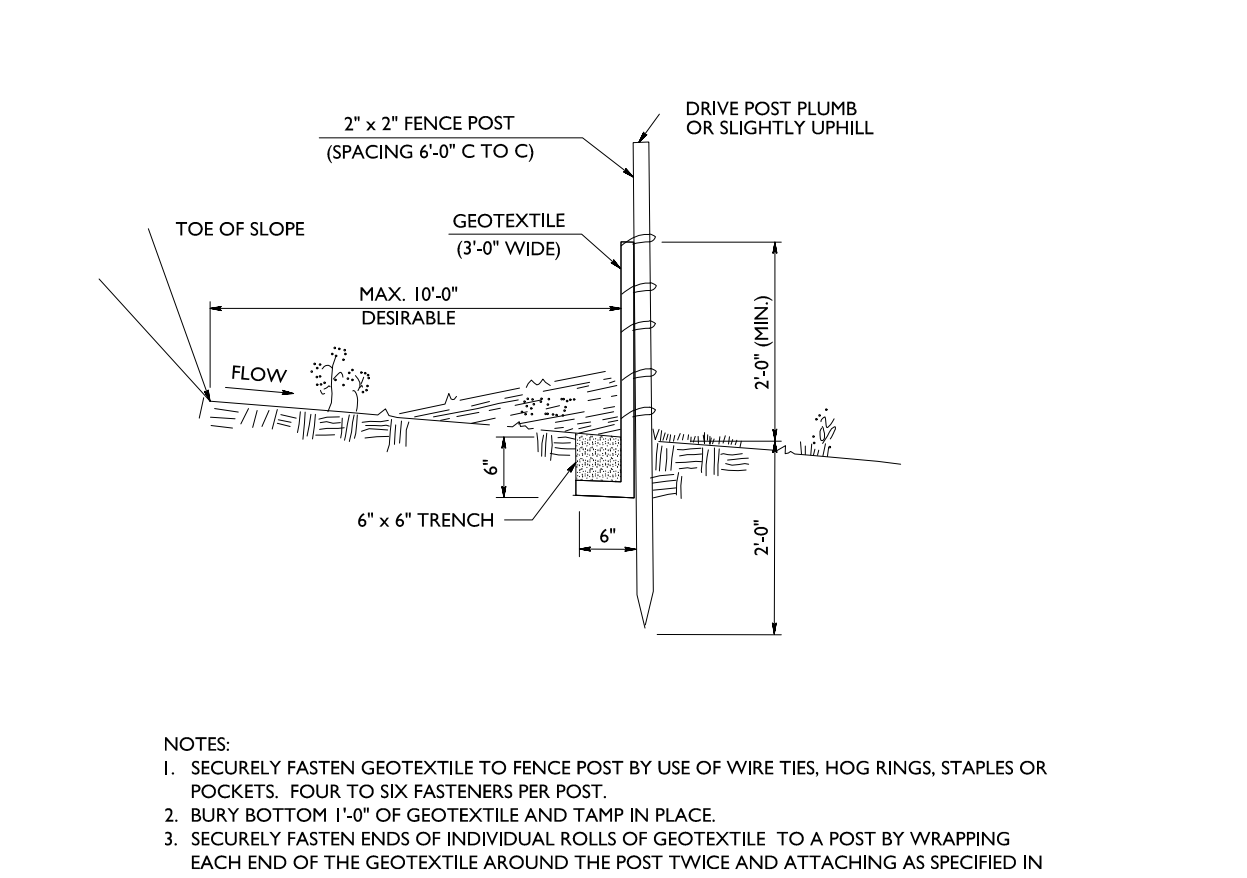
NOT TO SCALE



STABILIZED CONSTRUCTION ACCESS DETAIL

NOT TO SCALE

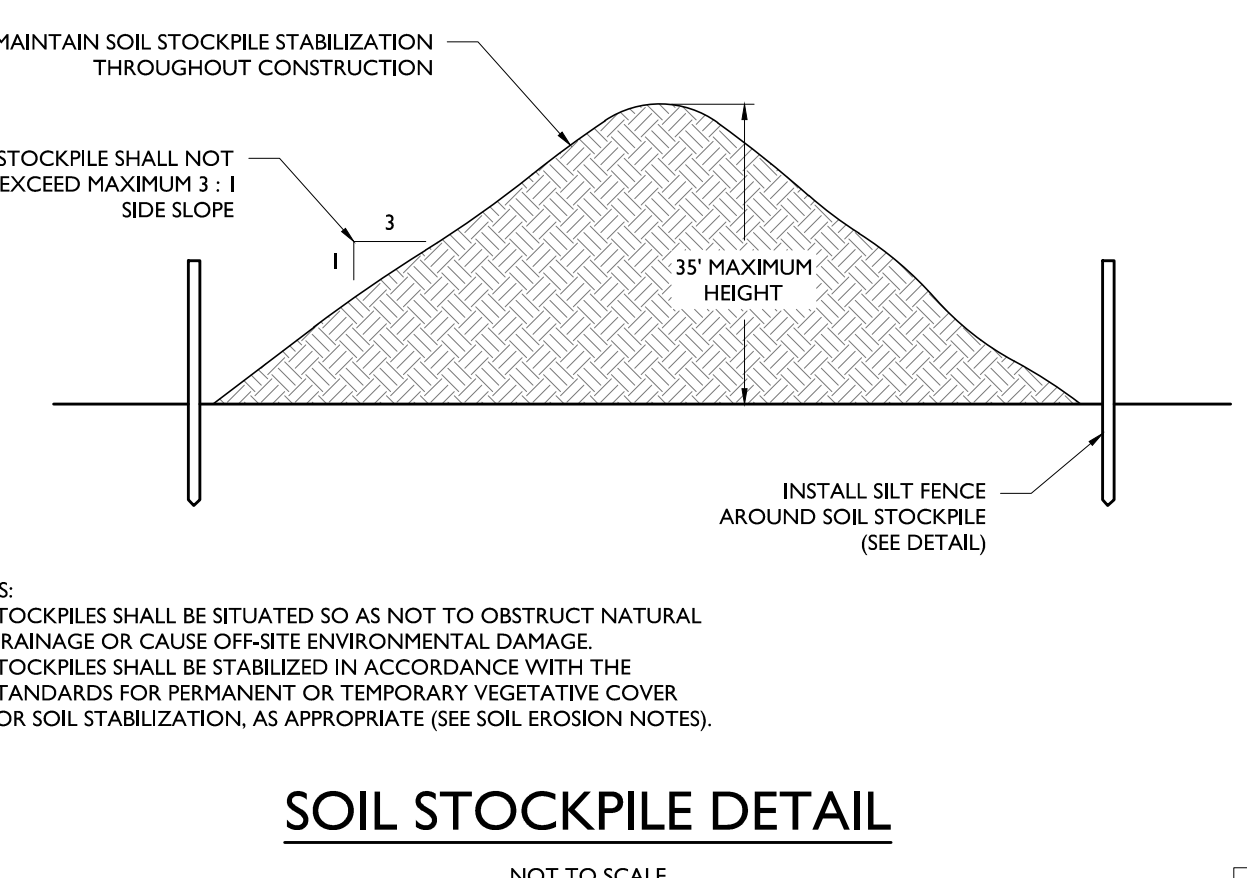
- NOTES:
1. STONE SHALL BE ASTM C-33, SIZE No. 2 (2.5" TO 1.5") OR No. 3 (2" TO 1") CLEAN CRUSHED ANGULAR STONE.
 2. WIDTH SHALL BE 15' MINIMUM OR THE FULL WIDTH OF THE ACCESS POINT, WHICHEVER IS GREATER.
 3. STORMWATER FROM UP-SLOPE AREAS SHALL BE DIVERTED AWAY FROM THE STABILIZED PAD, WHERE POSSIBLE. AT POORLY DRAINED LOCATIONS, SUBSURFACE DRAINAGE GRAVEL FILTER OR GEOTEXTILE SHALL BE INSTALLED BEFORE THE STABILIZED CONSTRUCTION ENTRANCE.
 4. WHERE THE SLOPE OF THE ROADWAY EXCEEDS 5% A STABILIZED BASE OF HOT MIX ASPHALT BASE COURSE SHALL BE INSTALLED. THE TYPE AND THICKNESS OF THE BASE COURSE AND USE OF DENSE GRADED AGGREGATE SUB-BASE SHALL BE AS PRESCRIBED BY LOCAL MUNICIPAL ORDINANCE OR GOVERNING AUTHORITY.
 5. CONTRACTOR SHALL PROVIDE A SMOOTH TRANSITION BETWEEN THE STABILIZED CONSTRUCTION ACCESS AND THE PUBLIC ROADWAY.



SILT FENCE DETAIL

NOT TO SCALE

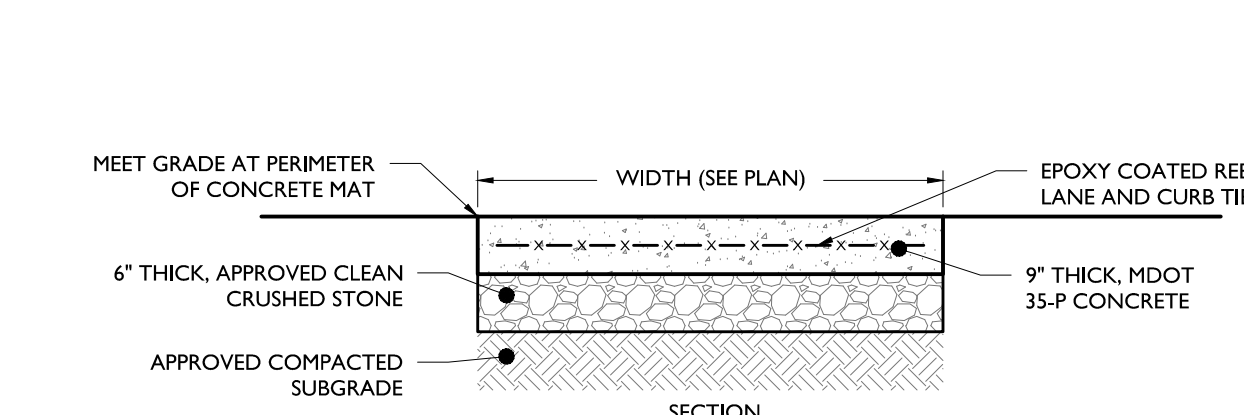
- NOTES:
1. SECURELY FASTEN GEOTEXTILE TO FENCE POST BY USE OF WIRE TIES, HOG RINGS, STAPLES OR POCKETS. FOUR TO SIX FASTENERS PER POST.
 2. BURY BOTTOM 1'-0" OF GEOTEXTILE AND TAMP IN PLACE.
 3. SECURELY FASTEN ENDS OF INDIVIDUAL ROLLS OF GEOTEXTILE TO A POST BY WRAPPING EACH END OF THE GEOTEXTILE AROUND THE POST TWICE AND ATTACHING AS SPECIFIED IN NOTE 1 ABOVE. SPLICING OF INDIVIDUAL ROLLS SHALL NOT OCCUR AT LOW POINTS.
 4. SET SILT FENCE WITHIN PROJECT LIMITS. 10'-0" IS DESIRABLE.



SOIL STOCKPILE DETAIL

NOT TO SCALE

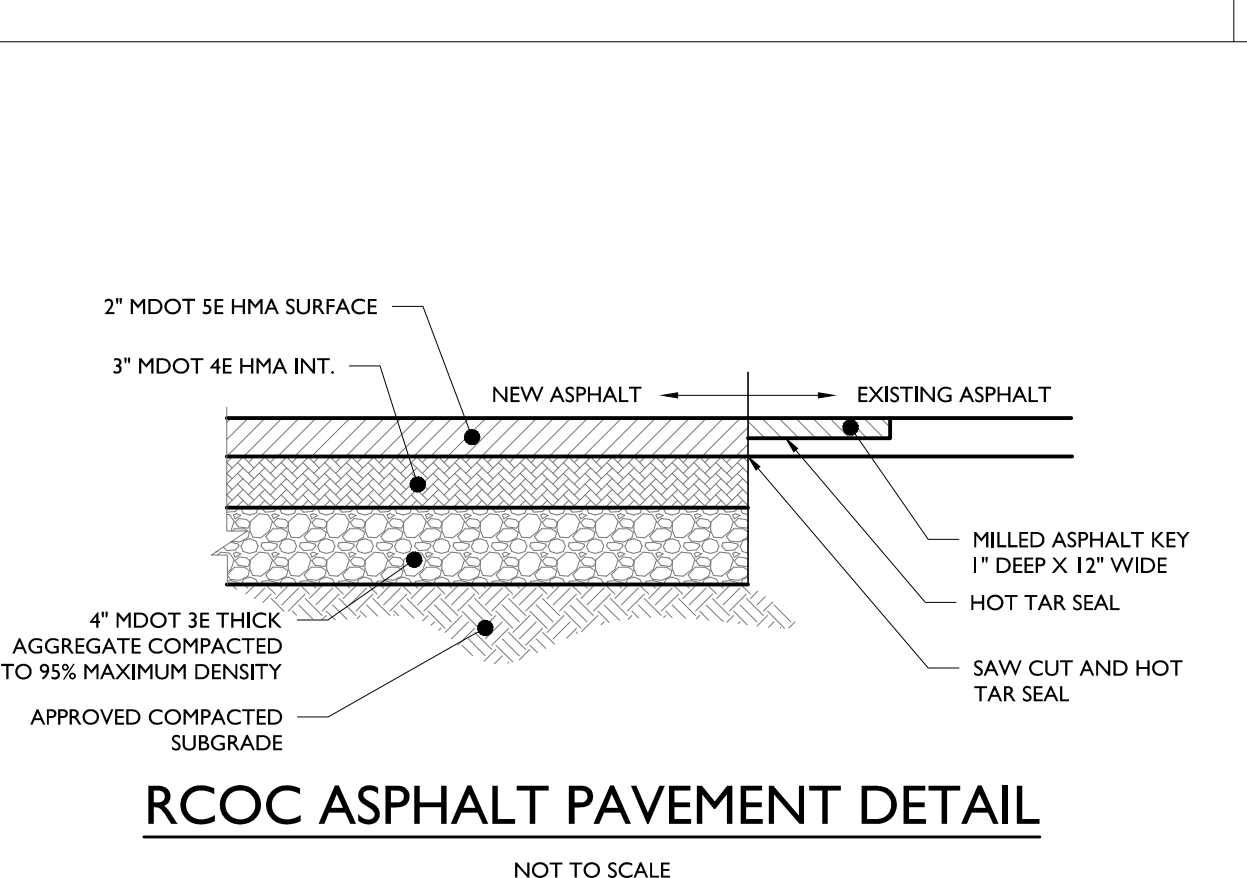
- NOTES:
1. STOCKPILES SHALL BE SITUATED SO AS NOT TO OBSTRUCT NATURAL DRAINAGE OR CAUSE OFF-SITE ENVIRONMENTAL DAMAGE.
 2. STOCKPILES SHALL BE STABILIZED IN ACCORDANCE WITH THE STANDARDS FOR PERMANENT OR TEMPORARY VEGETATIVE COVER FOR SOIL STABILIZATION, AS APPROPRIATE (SEE SOIL EROSION NOTES).



RCOC CONCRETE PAVEMENT DETAIL

NOT TO SCALE

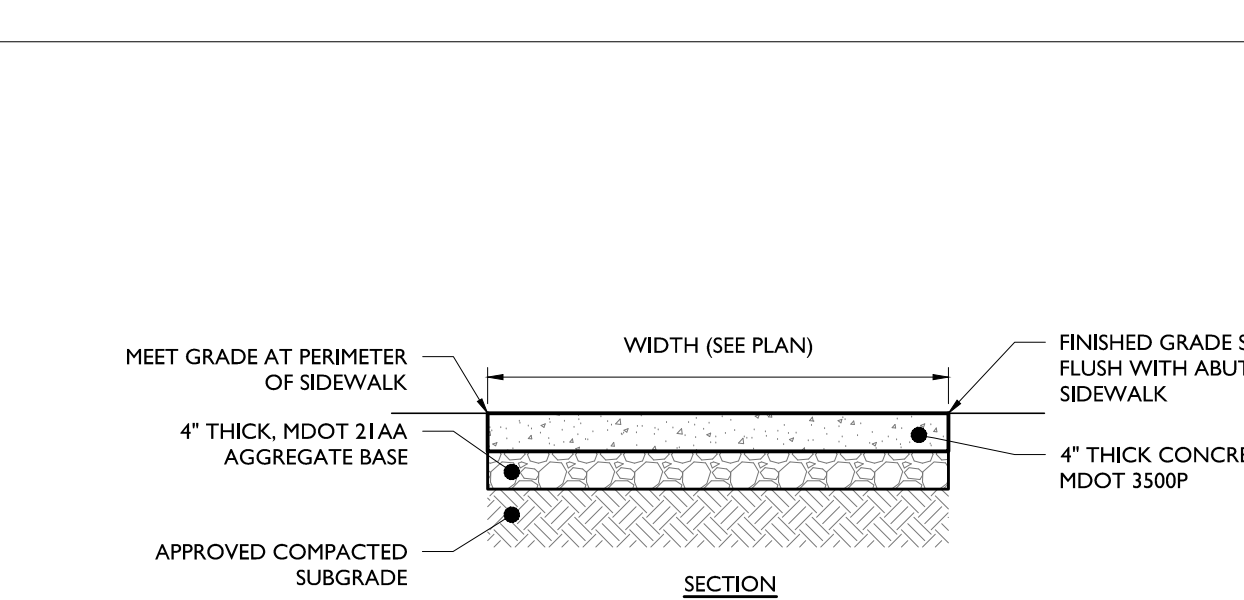
- NOTES:
1. 1/2" EXPANSION JOINTS WITH WATER SEAL SHALL BE PROVIDED AT 12' INTERVALS WITH PRE-MOLDED, BITUMINOUS JOINT FILLER, RECESSED 1/2" FROM THE SURFACE. LONGITUDINAL REBAR TO BE CUT AT EXPANSION JOINTS.
 2. 1" DEEP BY 1/2" WIDE, TOOLED CONTRACTION JOINTS SHALL BE PROVIDED AT MID-POINT BETWEEN EXPANSION JOINTS OR 6' INTERVALS MAX.
 3. CONCRETE SHALL RECEIVE BROOM FINISH.
 4. ALL EXPOSED CORNERS TO HAVE 12" CHAMFER.



RCOC ASPHALT PAVEMENT DETAIL

NOT TO SCALE

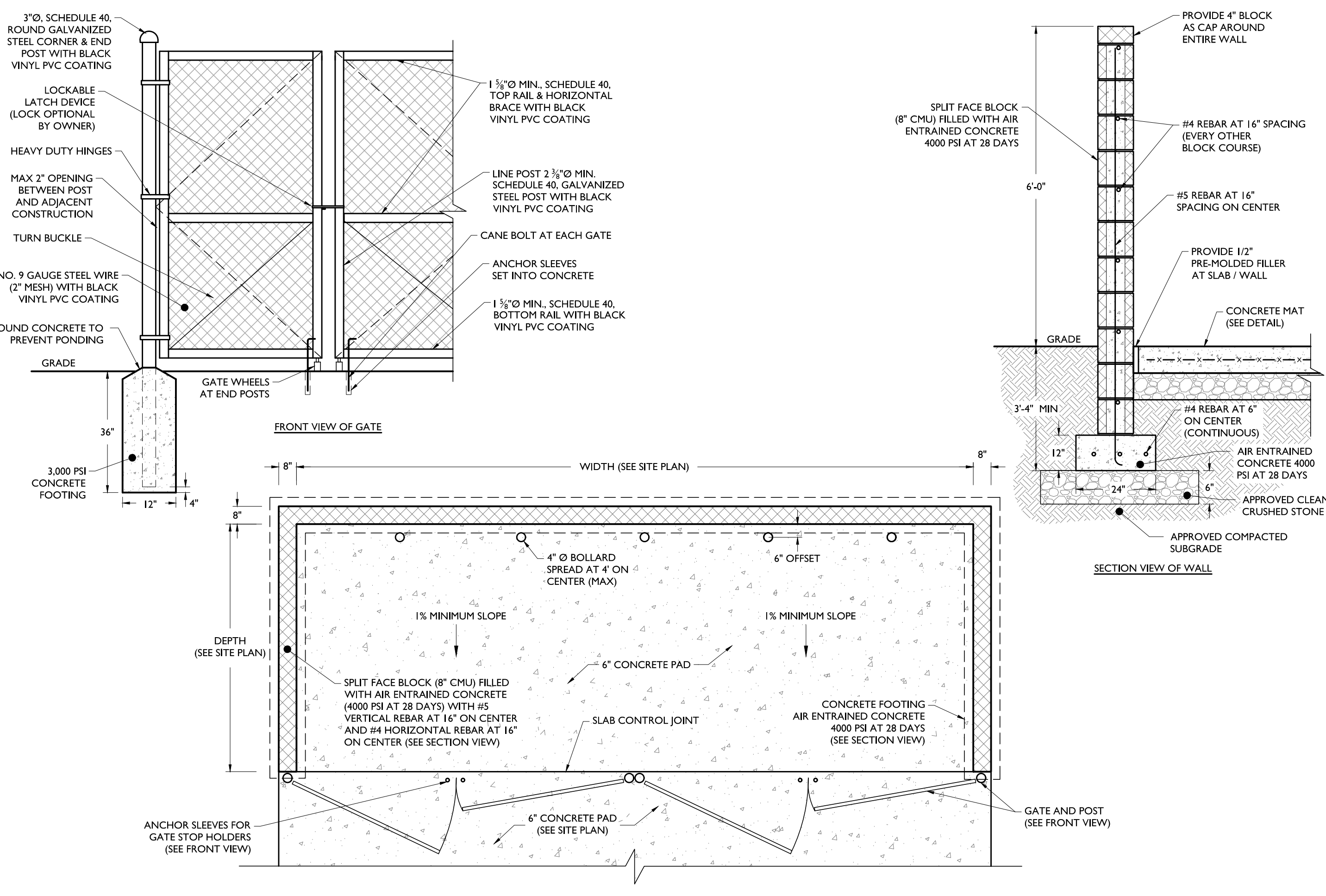
- NOTE:
1. CONTRACTOR TO REFER TO GEOTECHNICAL REPORT FOR PAVEMENT SPECIFICS AND DESIGN/CONSTRUCTION RECOMMENDATIONS
 2. HMA MIX AND DENSE GRADED AGGREGATE SHALL CONFORM TO STATE DEPARTMENT OF TRANSPORTATION SPECIFICATIONS.



CITY OF ROCHESTER HILLS RIGHT-OF-WAY CONCRETE WALKWAY DETAIL

NOT TO SCALE

- NOTES:
1. MAXIMUM CROSS SLOPE SHALL BE 1/2" PER FOOT.
 2. 1/2" EXPANSION JOINTS SHALL BE PROVIDED AT 12' INTERVALS WITH PRE-MOLDED, BITUMINOUS JOINT FILLER, RECESSED 1/2" FROM THE SURFACE.
 3. 1" DEEP BY 1/2" WIDE, TOOLED CONTRACTION JOINTS SHALL BE PROVIDED AT 4' INTERVALS.
 4. EXPANSION JOINT SHALL BE PROVIDED WHERE ADJACENT TO A BUILDING.



DOUBLE TRASH / RECYCLE ENCLOSURE DETAIL

NOT TO SCALE

- NOTE:
- BLOCK COLOR TO MATCH BLOCKING OR AS SPECIFIED BY OWNER

ISSUE	DATE	BY	DESCRIPTION
7	05/28/2022	JRC/ECM	SUBMISSION FOR SITE PLAN APPROVAL
6	02/09/2022	JRC/ECM	REVISED PER CITY SECOND SITE PLAN REVIEW
5	12/28/2021	JRC/ECM	REVISED PER CITY SITE PLAN REVIEW
4	09/08/2021	RAC/ECM	SUBMISSION FOR SITE PLAN APPROVAL
3	08/20/2021	RAC	REVISED PER FIRE DEPARTMENT COMMENTS
2	08/02/2021	ECM	REVISED PER CITY COMMENTS
1	07/08/2021	JRC	SUBMISSION FOR PRE-APPLICATION MEETING

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1360 WALTON BLVD
PROPOSED STARBUCKS

PARCEL ID: 15-09-476-030
1360 WALTON BOULEVARD
CITY OF ROCHESTER HILLS
OAKLAND COUNTY, MICHIGAN

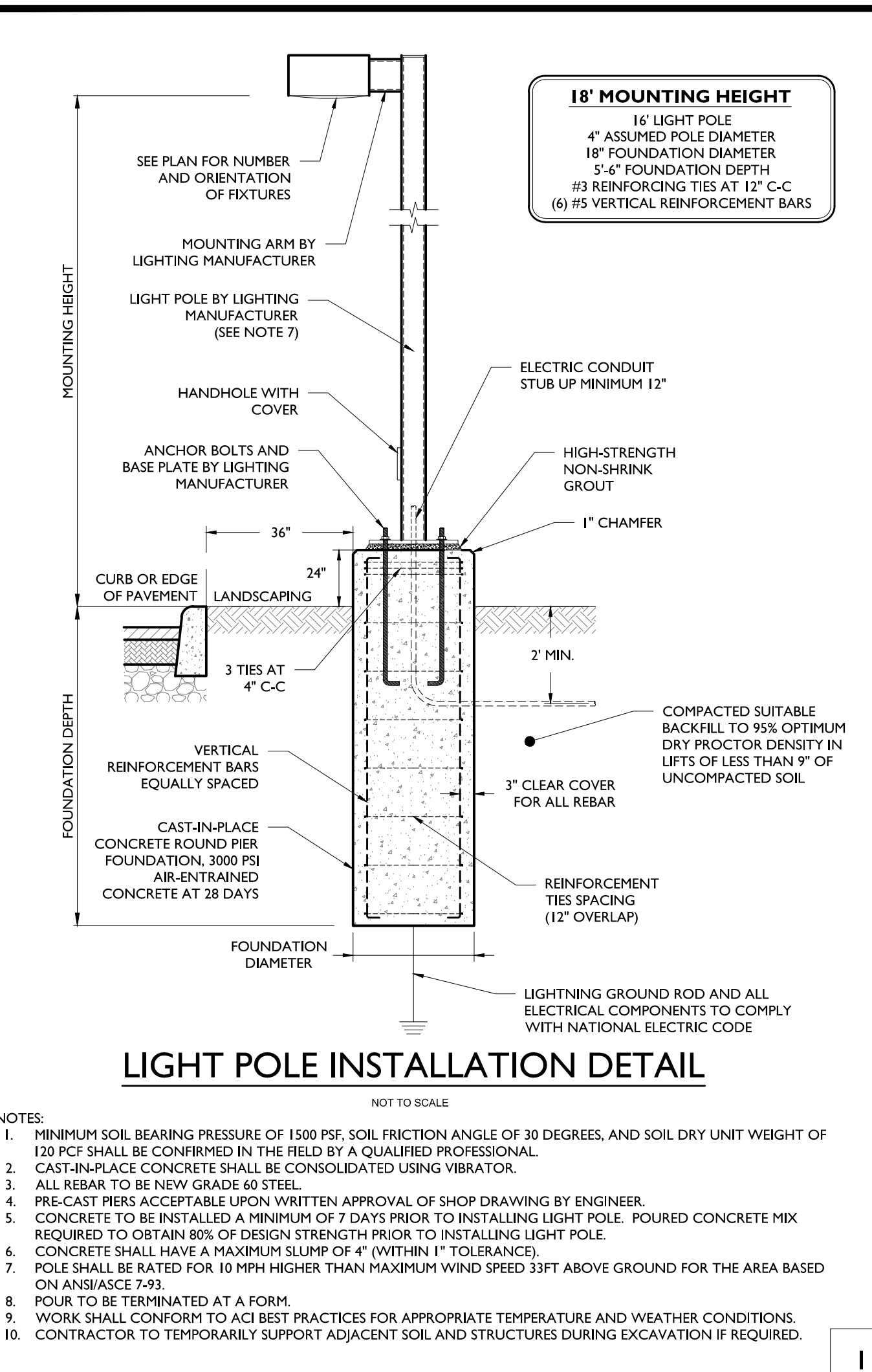
STATE OF MICHIGAN
COUNTY ENGINEER
MICHIGAN LICENSED PROFESSIONAL ENGINEER

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CITY FILE #21-030 SECTION #9
SCALE: AS SHOWN PROJECT ID: DET-200412

TITLE:
CONSTRUCTION DETAILS

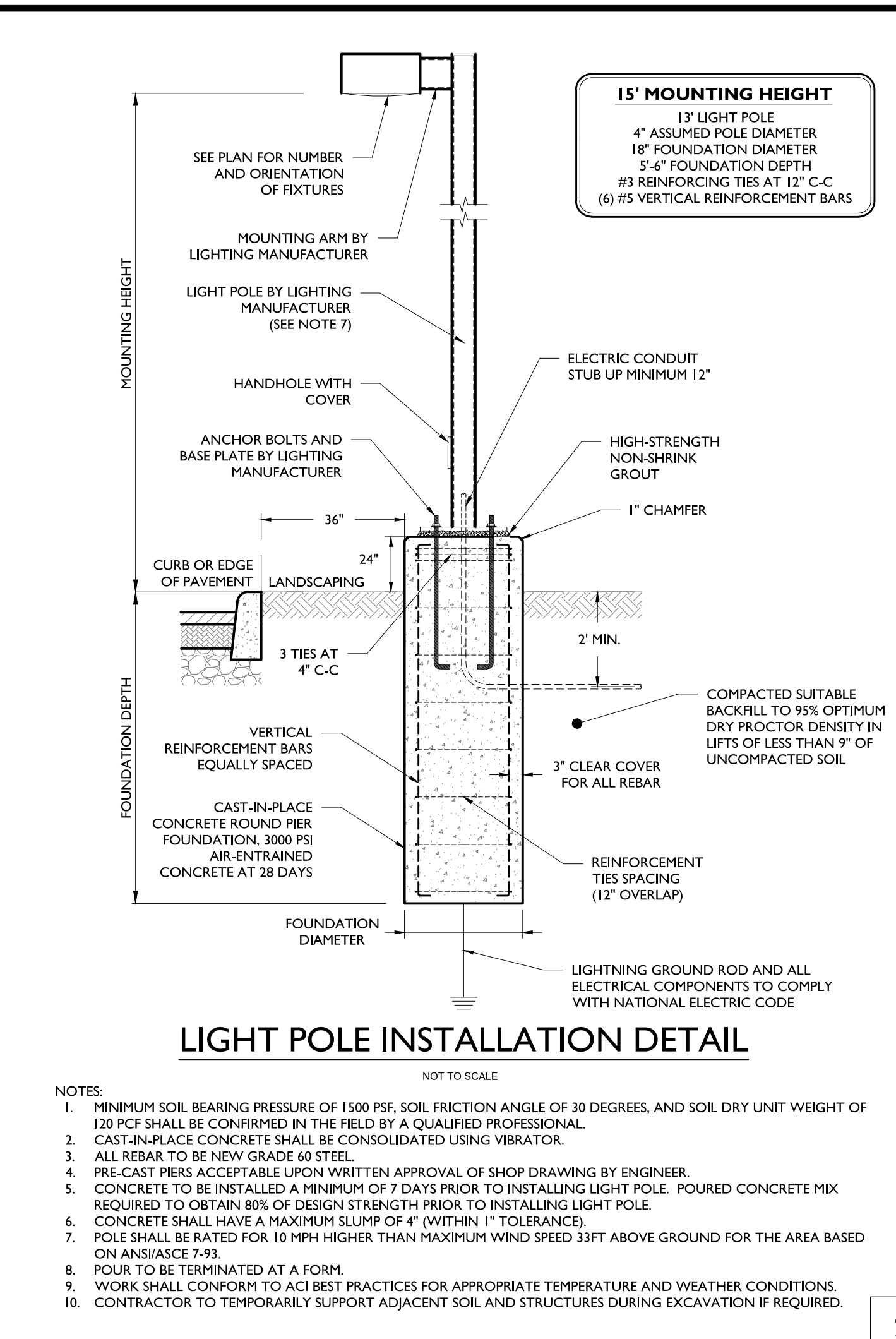
DRAWING:
C-13



NOTES:

- MINIMUM SOIL BEARING PRESSURE OF 1500 PSF, SOIL FRICTION ANGLE OF 30 DEGREES, AND SOIL DRY UNIT WEIGHT OF 120 PCF SHALL BE CONFIRMED IN THE FIELD BY A QUALIFIED PROFESSIONAL.
- CAST-IN-PLACE CONCRETE SHALL BE CONSOLIDATED USING VIBRATOR.
- ALL REBAR TO BE NEW GRADE 60 STEEL.
- PRE-CAST PIERS ACCEPTABLE UPON WRITTEN APPROVAL OF SHOP DRAWING BY ENGINEER.
- CONCRETE TO BE INSTALLED A MINIMUM OF 7 DAYS PRIOR TO INSTALLING LIGHT POLE. POURED CONCRETE MIX REQUIRED TO OBTAIN 80% OF DESIGN STRENGTH PRIOR TO INSTALLING LIGHT POLE.
- CONCRETE SHALL HAVE A MAXIMUM SLUMP OF 4\"/>

NOT TO SCALE



NOTES:

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- CONCRETE SHALL HAVE A MAXIMUM SLUMP OF 4\"/>

NOT TO SCALE

Lumark

PRV / PRV-XL Preval LED

Area / Site Luminaire

Product Features

- Ordering Information
- Mounting Details
- Product Configurations
- Product Specifications
- Energy and Performance Data
- Control Options

Product Certifications

• ETL
 • UL
 • DLC
 • IFC
 • IP66
 • 5 YEAR

Connected Systems

- WaveLinx
- Enlighted

Quick Facts

- Lumen packages range from 7,100 - 48,600 lumens (50W - 550W)
- Replaces 70W up to 1,000W HID equivalents
- Efficacies up to 148 lumens per watt
- Energy and maintenance savings up to 85% versus HID solutions
- Standard universal quick mount arm with universal drill pattern

Dimensional Details

PRV

PRV-XL

COOPER Lighting Solutions

PROJECT INFORMATION

Project: _____ Catalog #: _____ Type: _____

Prepared by: _____ Notes: _____ Date: _____

LIGHT FIXTURES 'A-C' SPECIFICATIONS

NOT TO SCALE

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\"/>

4. Provide a minimum of 3\"/>

5. Pathway ramps shall be constructed in accordance with MDOT standard detail R-28 Series 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.

8. Pathway shall be 6 inch thick HMA or concrete through residential drives and 9 inch thick HMA or 8 inch thick concrete through commercial drives.

9. Pathway asphalt shall be paid for as "Shared Use Path, HMA" when part of public improvement project.

10. Ramps and landings shall be 6 inch thick concrete.

11. ADA detectable warning plates shall be performed and brick red in color. Acceptable products include ADA Solutions, Inc., Armor-Tile, e.j. or approved equal.

LED Outdoor

120v: 3-712-2xx
 277v: 37-712-2xx

oxygen

FIXTURE TYPE: _____ LOCATION: _____

PROJECT: _____ DATE: _____

-24 Satin Nickel
 -22 Oiled Bronze

LIGHT SOURCE: 1 x 10 T1 LED, 3000K, CRI 90

LUMINAIRE POWER: 13.0W or 120W

RATED LIFE: 60000 hr IL

OPTIONAL COLOR TEMPERATURES: 2700K, 3500K, 4000K

LUMEN OUTPUT: Delivered: 680 lm (LM-79)

INPUT VOLTAGE: 120V or 277V

DRIVER OUTPUT: 350 mA, 12W

DIMMING: 0-10V &Phase (ELV) Dimming - 50/60Hz 100% to 10% Dimming

CONSTRUCTION: Cast Aluminum and Acrylic

DIFFUSER: -2 Matte White Acrylic

FINISHES: Oiled Bronze (22), Satin Nickel (-24)

MOUNTING: 4\"/>

STANDARDS: ETL Wet, Conforms to UL STD 1598, Certified CAN/CSA, STD C22.2 No 250.0

Order example for standard fixture:
 3-712-224 (x-Voltage - xxx-Sequence # - x-Diffuser - xxx-Finish)
 3: 120v, 37: 277v

Order example for optional color temperatures: 3-712-22224
 27: 2700K, 35: 3500K, 40: 4000K

201 Rollwood Road, Fort Worth, TX 76106 • Tel. (877) 607-0202 • www.oxygenlighting.com

SPECIFICATIONS

NOTES

- 4\"/>
- Units weight - w/cover iron covers: 378 lbs.; w/compulsible covers: 266 lbs. (For wet weight add 2,300 lbs.)
- Maximum operating temperature: 50° F continuous
- Capacities - Liquid: 277 gal; 600 GPM - Grease: 1926 lbs.; 9200 GPM - Grease: 1936 lbs. Solids: 69 gal
- This unit does not require flow control for 100 GPM applications. Built-in flow control is provided for 200 GPM applications. For series installations, only install flow control on the first unit in the series if necessary.
- For gravity drainage applications only.
- Do not use for pressure applications.
- Cover placement allows full access to tank for proper maintenance.
- Vent not required unless per local code.
- Engineered inlet and outlet diffusers are removable to inspect / clean unit.
- Integral air relief / Anti-siphon / Siphoning access.
- Adjustable cover adapters provide up to 4\"/>
- Fixed outlet modets (-FO) have inlet and outlet permanently welded at the factory in the straight-through (S) positions.
- Flow rates are based on 2-minute drain time.
- Safety Star® access restrictor built into each cover adapter, prevents accidental entry to tanks (650 lb rating).

DIFFUSION FLOW TECHNOLOGY

The inlet diffuser reduces turbulence, creates laminar flow and allows the entire tank volume to be utilized for efficient grease separation and minimal disturbance to existing grease and sediment layers. The inlet diffuser can be attached to any of the three inlets provided to ease job site piping layouts. The integral air relief / anti-siphon on the outlet diffuser top allows pressure stabilization within the unit during operation. The outlet diffuser can easily be attached to any of the three outlets provided to ease job site piping layouts.

ENGINEER SPECIFICATION GUIDE

Schier Great Basin™ grease interceptor model # GB-250 shall be fabricated, guaranteed and made in USA of stainless, rotationally-molded polyethylene. Interceptor shall be furnished for above or below grade installation. Interceptor shall be certified to ASME A12.14.3 (Type D for 100 GPM, Type C for 200 GPM) and CSA B481.1 with adjustable cover adapters. Safety Star® access restrictor built into each cover adapter. Built-in flow control restricts 200 GPM only and three outlet options. Interceptor flow rate shall be 100 or 200 GPM. Interceptor grease capacity shall be 1895 lbs. @ 100 GPM or 1936 GPM @ 200 GPM. Cover shall provide water / gas-tight seal and have minimum 16,000 lbs. load capacity.

CERTIFIED PERFORMANCE

Great Basin™ hydromechanical grease interceptors are third party performance-tested and listed by IAPMO to ASME A12.14.3 and CSA B481.1 grease interceptor standards and greatly exceed requirements for grease separation and storage. They are compliant to the Uniform Plumbing Code and the International Plumbing Code.

Rated Grease Capacities for Units Piped in Series

No. of Units in Series	100 GPM	200GPM
1	98.7%	93.9%
2	3,790 lbs.	2,292 lbs.
3	5,685 lbs.	3,558 lbs.
4	7,580 lbs.	4,790 lbs.

SCHIER

MODEL NUMBER: GB-250 DESCRIPTION: 100/200 GPM Polyethylene Grease Interceptor

PART #: 405S-001-02 DWO BY: B. Korner DATE: 8/28/2020 REV: _____ IFCO

9500 Woodland Road • Edwardsville, IL 62011 913-951-3100 | schierproducts.com

page 4 of 4

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7

8/28/2021 JRC / ECH

6

02/09/2021 JRC / ECH

5

12/28/2021 JRC / ECH

4

09/08/2021 RAC / ECH

3

08/20/2021 RAC

2

08/02/2021 ECH

1

07/08/2021 JRC

ISSUE DATE BY DESCRIPTION

STARBUCKS

1360 WALTON BLVD
 PROPOSED STARBUCKS

STARBUCKS

PARCEL ID: 15-09-476-030
 1360 WALTON BOULEVARD
 CITY OF ROCHESTER HILLS
 OKLAHOMA COUNTY, MICHIGAN

STATE OF MICHIGAN
 COUNTY OF OKLAHOMA
 ENGINEER
 MICHAEL J. SCHIER
 LICENSED PROFESSIONAL ENGINEER

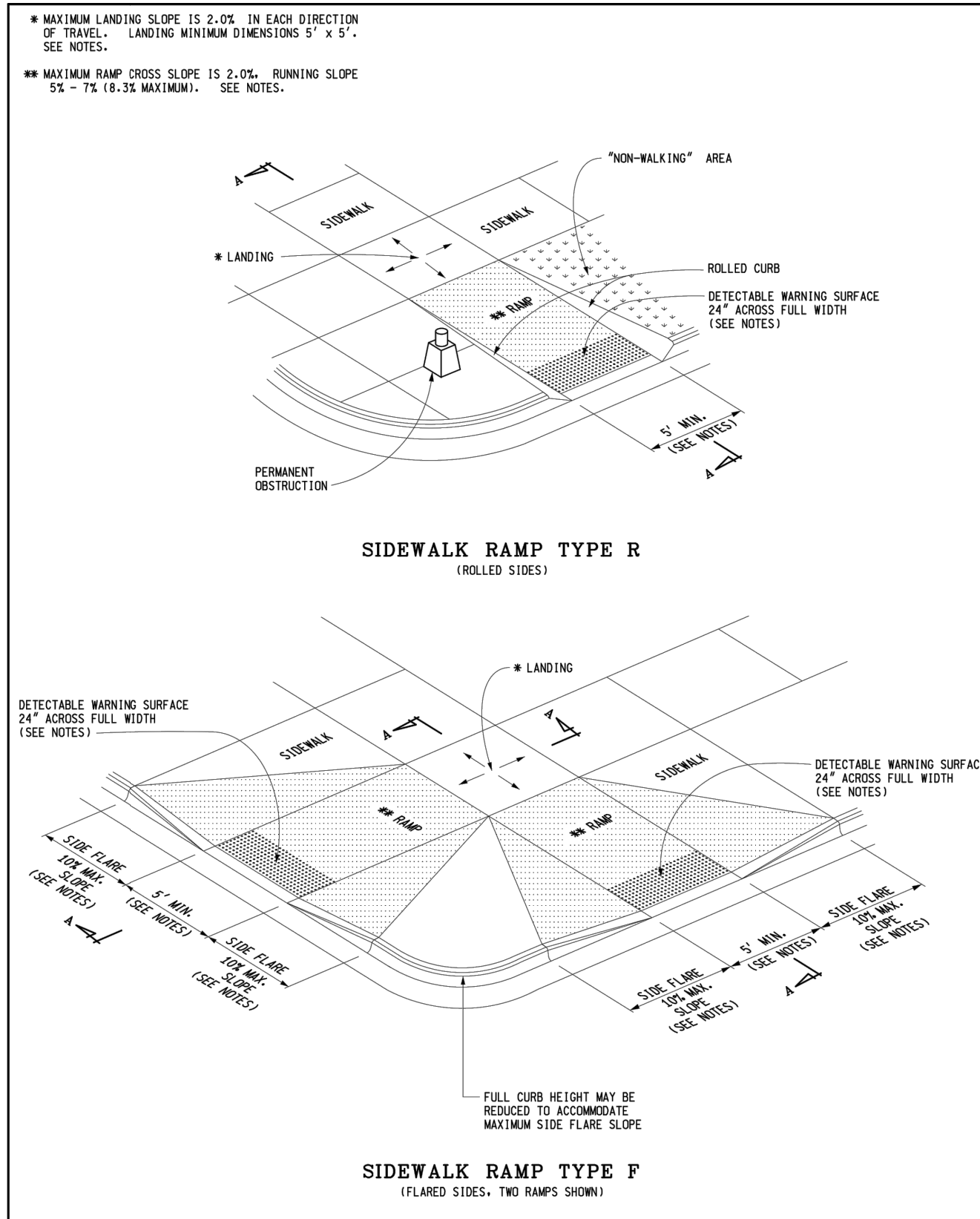
STONEFIELD engineering & design

CITY FILE #21-030 SECTION #9

SCALE: AS SHOWN PROJECT ID: DET-200412

TITLE: CONSTRUCTION DETAILS

DRAWING: C-14



APPROVED BY: _____
DIRECTOR, BUREAU OF FIELD SERVICES

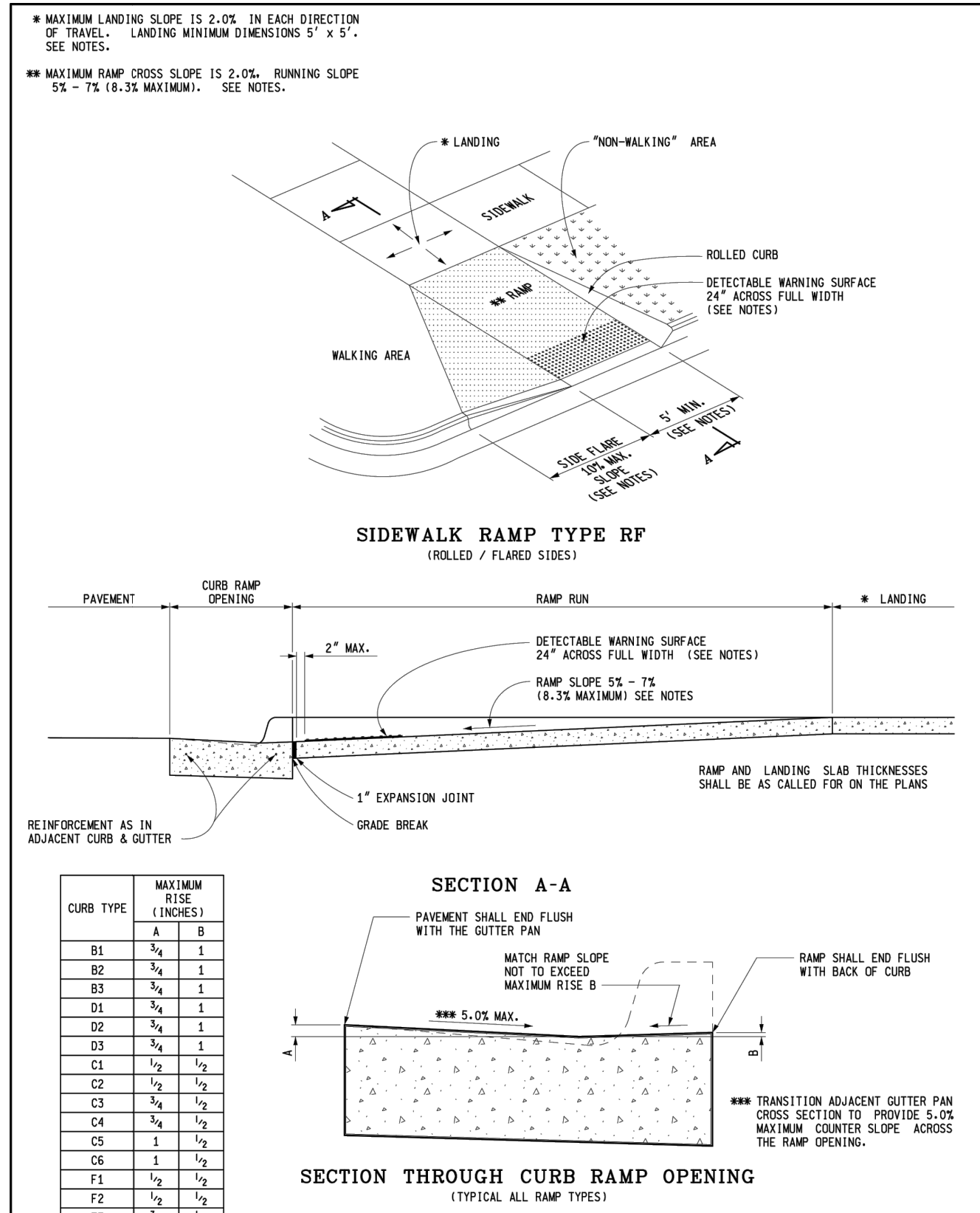
APPROVED BY: _____
DIRECTOR, BUREAU OF DEVELOPMENT

MICHIGAN DEPARTMENT OF TRANSPORTATION
BUREAU OF DEVELOPMENT STANDARD PLAN FOR

SIDEWALK RAMP AND DETECTABLE WARNING DETAILS

12-11-2017
PLAN DATE

R-28-J
SHEET 1 OF 7



APPROVED BY: _____
DIRECTOR, BUREAU OF FIELD SERVICES

APPROVED BY: _____
DIRECTOR, BUREAU OF DEVELOPMENT

MICHIGAN DEPARTMENT OF TRANSPORTATION
BUREAU OF DEVELOPMENT STANDARD PLAN FOR

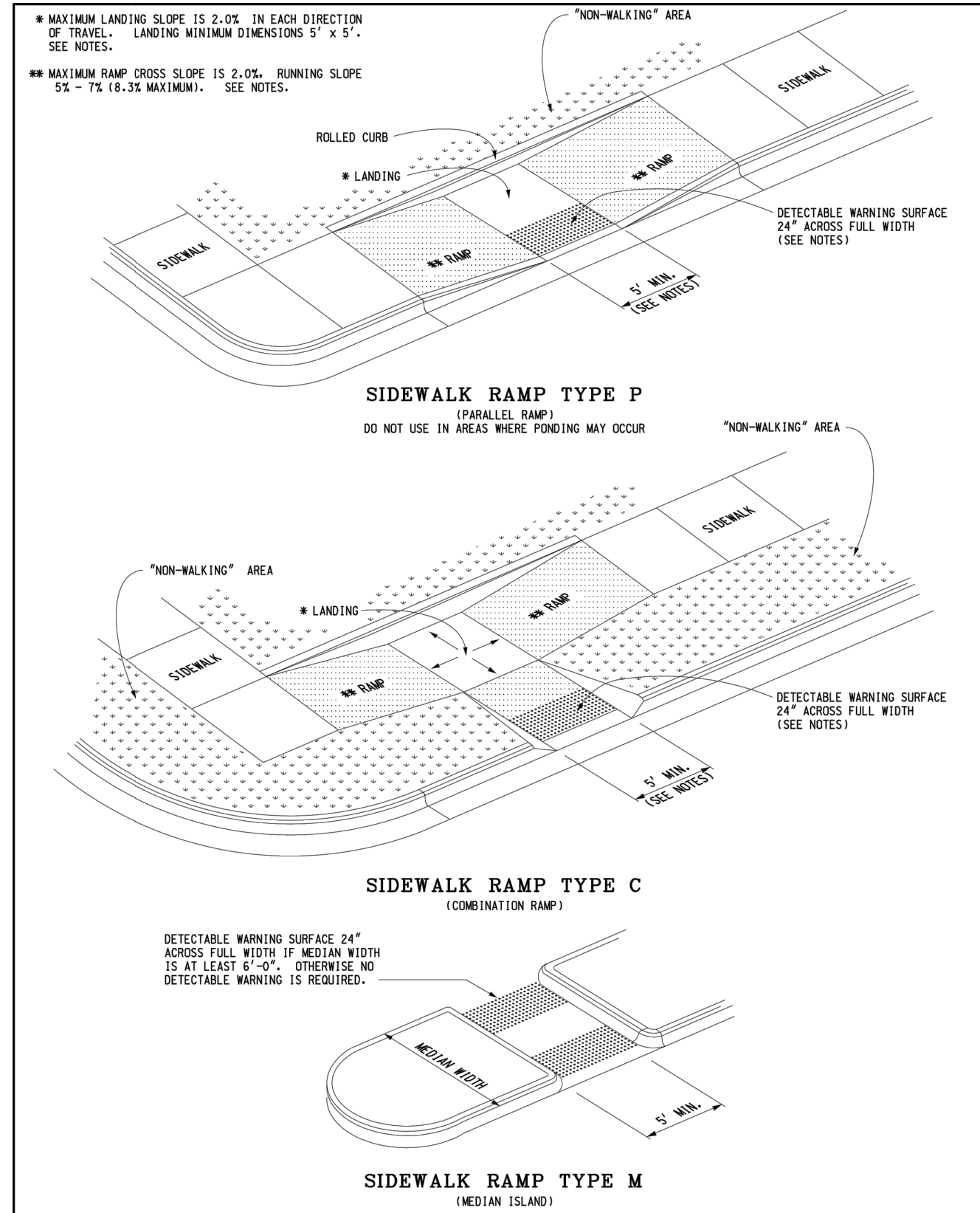
SIDEWALK RAMP AND DETECTABLE WARNING DETAILS

12-11-2017
PLAN DATE

R-28-J
SHEET 2 OF 7

CURB TYPE	MAXIMUM RISE (INCHES)
B1	1/4
B2	1/4
B3	1/4
D1	1/4
D2	1/4
C1	1/2
C2	1/2
C3	1/2
C4	1/2
C5	1/2
C6	1/2
F1	1/2
F2	1/2
F3	1/2
F4	1/2
F5	1/2
F6	1/2

FOR CURB TYPES SEE STANDARD PLAN R-30-SERIES



APPROVED BY: _____
DIRECTOR, BUREAU OF FIELD SERVICES

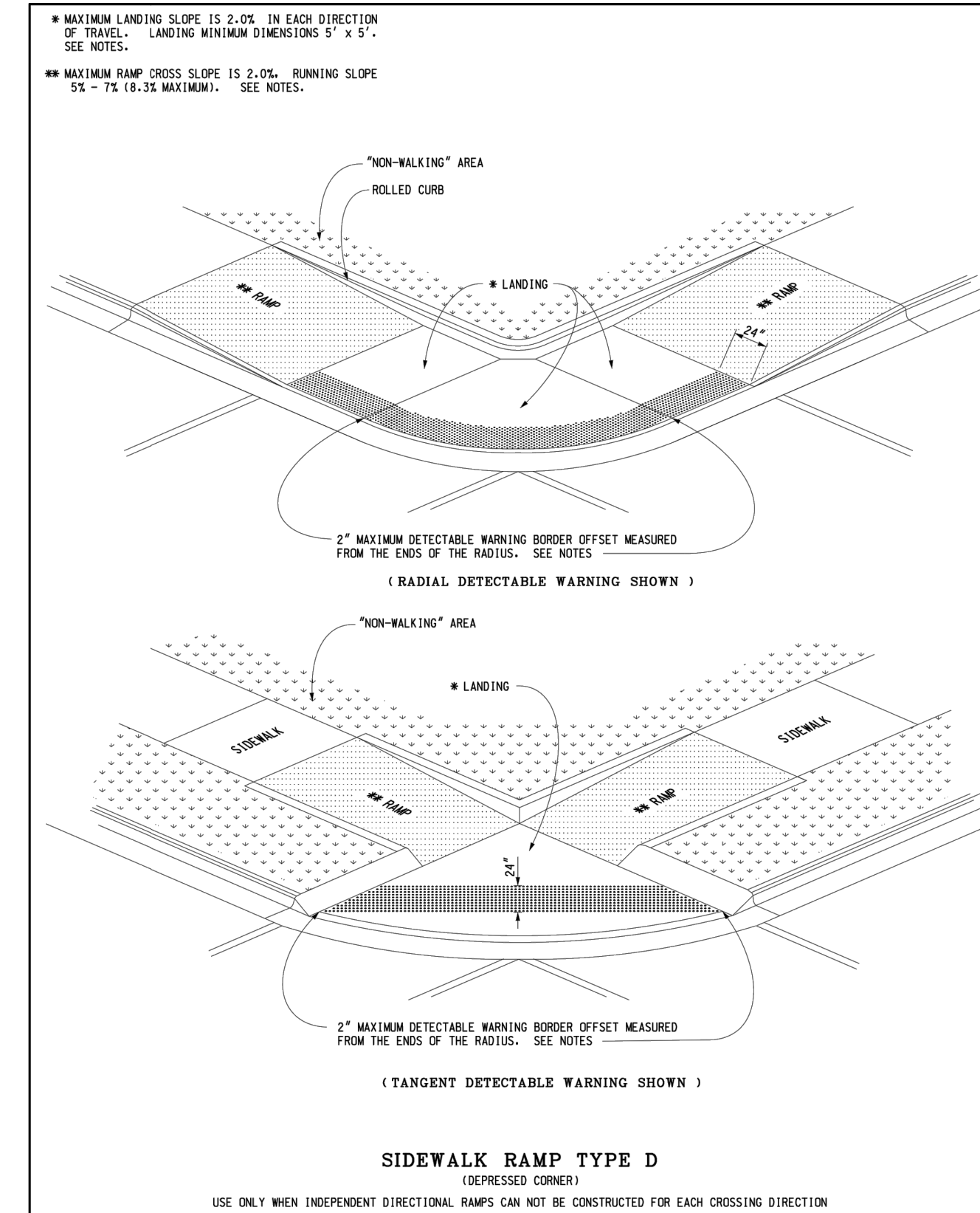
APPROVED BY: _____
DIRECTOR, BUREAU OF DEVELOPMENT

MICHIGAN DEPARTMENT OF TRANSPORTATION
BUREAU OF DEVELOPMENT STANDARD PLAN FOR

SIDEWALK RAMP AND DETECTABLE WARNING DETAILS

12-11-2017
PLAN DATE

R-28-J
SHEET 3 OF 7



APPROVED BY: _____
DIRECTOR, BUREAU OF FIELD SERVICES

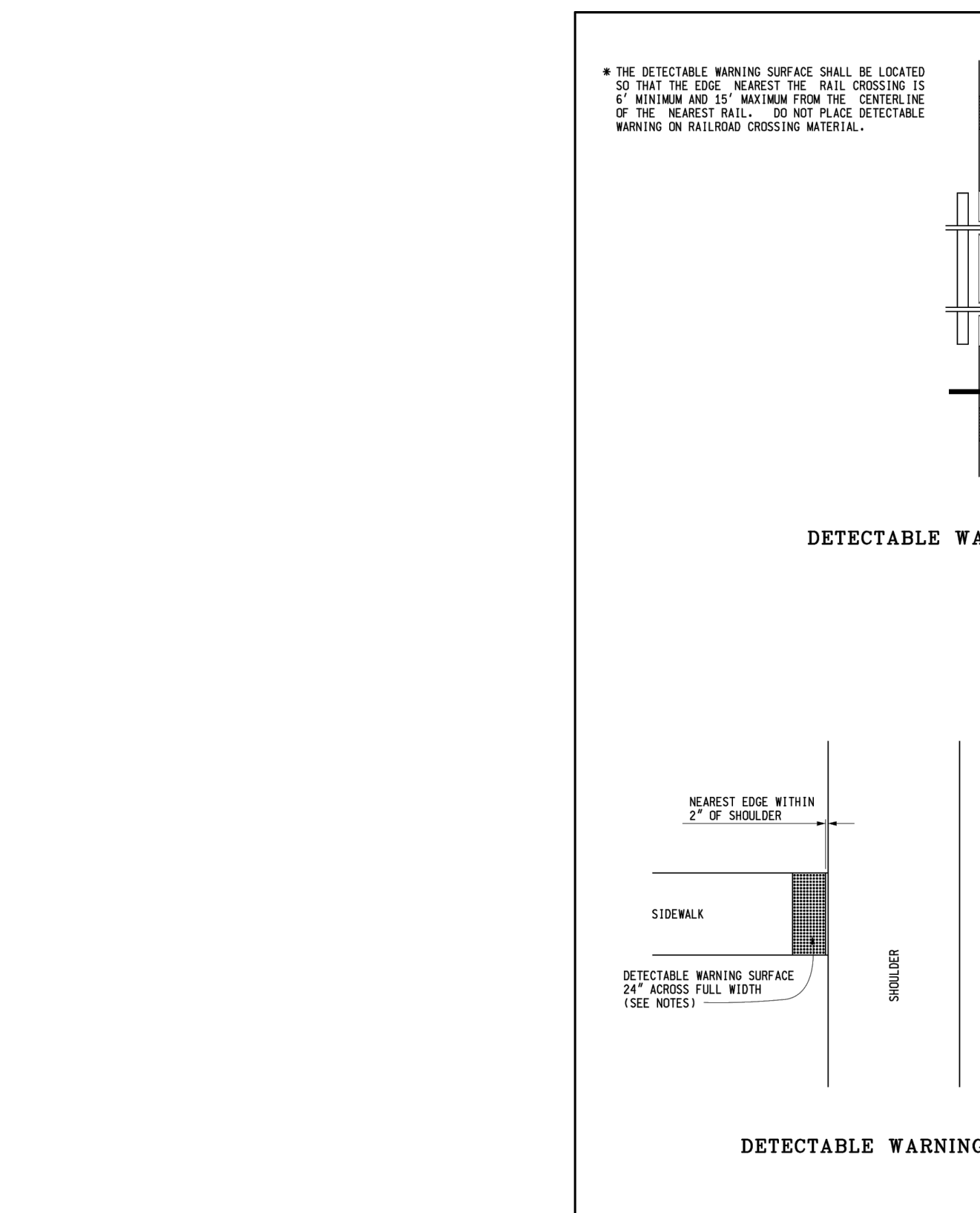
APPROVED BY: _____
DIRECTOR, BUREAU OF DEVELOPMENT

MICHIGAN DEPARTMENT OF TRANSPORTATION
BUREAU OF DEVELOPMENT STANDARD PLAN FOR

SIDEWALK RAMP AND DETECTABLE WARNING DETAILS

12-11-2017
PLAN DATE

R-28-J
SHEET 4 OF 7



APPROVED BY: _____
DIRECTOR, BUREAU OF FIELD SERVICES

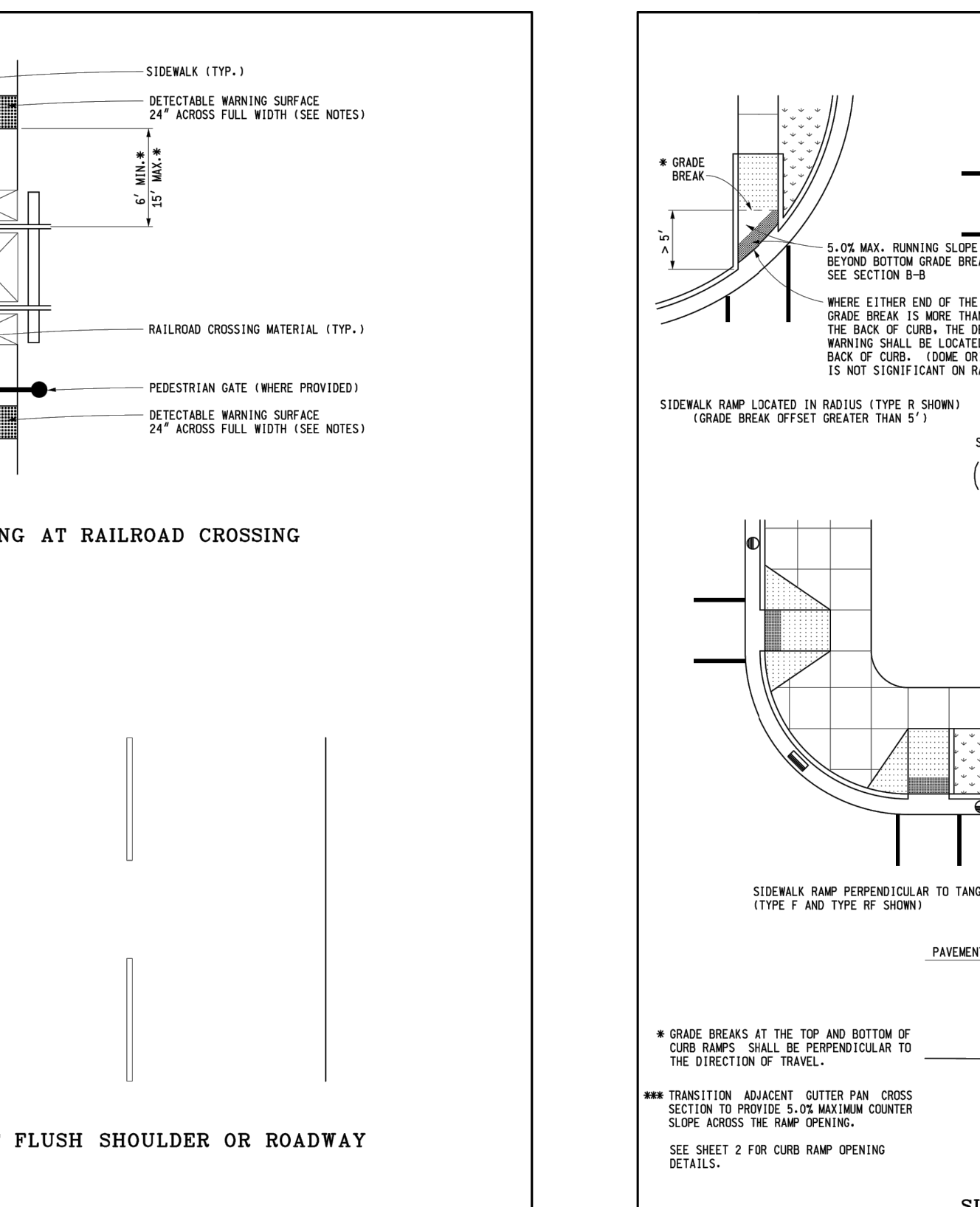
APPROVED BY: _____
DIRECTOR, BUREAU OF DEVELOPMENT

MICHIGAN DEPARTMENT OF TRANSPORTATION
BUREAU OF DEVELOPMENT STANDARD PLAN FOR

SIDEWALK RAMP AND DETECTABLE WARNING DETAILS

12-11-2017
PLAN DATE

R-28-J
SHEET 5 OF 7



APPROVED BY: _____
DIRECTOR, BUREAU OF FIELD SERVICES

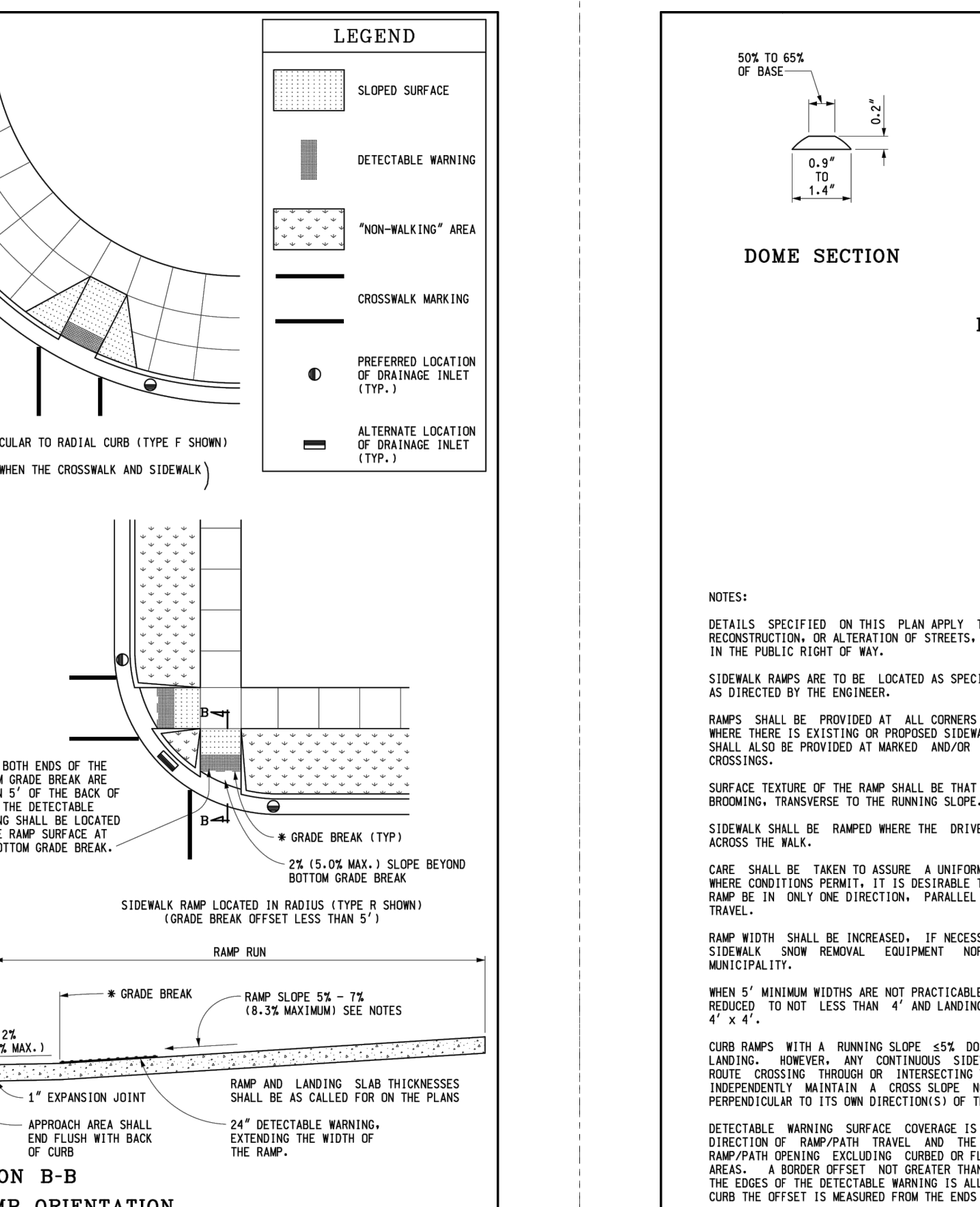
APPROVED BY: _____
DIRECTOR, BUREAU OF DEVELOPMENT

MICHIGAN DEPARTMENT OF TRANSPORTATION
BUREAU OF DEVELOPMENT STANDARD PLAN FOR

SIDEWALK RAMP AND DETECTABLE WARNING DETAILS

12-11-2017
PLAN DATE

R-28-J
SHEET 6 OF 7



APPROVED BY: _____
DIRECTOR, BUREAU OF FIELD SERVICES

APPROVED BY: _____
DIRECTOR, BUREAU OF DEVELOPMENT

MICHIGAN DEPARTMENT OF TRANSPORTATION
BUREAU OF DEVELOPMENT STANDARD PLAN FOR

SIDEWALK RAMP AND DETECTABLE WARNING DETAILS

12-11-2017
PLAN DATE

R-28-J
SHEET 7 OF 7

MDOT SIDEWALK RAMP AND DETECTABLE WARNING DETAILS (R-28-J)

NOT TO SCALE

MDOT SIDEWALK RAMP AND DETECTABLE WARNING DETAILS (R-28-J)

NOT TO SCALE

MDOT SIDEWALK RAMP AND DETECTABLE WARNING DETAILS (R-28-J)

NOT TO SCALE

MDOT SIDEWALK RAMP AND DETECTABLE WARNING DETAILS (R-28-J)

NOT TO SCALE

ISSUE	DATE	BY	DESCRIPTION
1	07/02/2021	JRC	SUBMISSION FOR PRE-APPLICATION MEETING
2	08/02/2021	ECM	REVISED PER CITY COMMENTS
3	08/20/2021	RAC	REVISED PER FIRE DEPARTMENT COMMENTS
4	09/08/2021	RAC / ECM	SUBMISSION FOR SITE PLAN APPROVAL
5	12/28/2021	JRC / ECM	REVISED PER CITY SITE PLAN REVIEW
6	02/09/2022	JRC / ECM	REVISED PER CITY SECOND SITE PLAN REVIEW
7	05/28/2022	JRC / ECM	SUBMISSION FOR SITE PLAN APPROVAL

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STARBUCKS

1360 WALTON BLVD
PROPOSED STARBUCKS

PARCEL ID: 15-09-476-030
1360 WALTON BOULEVARD
CITY OF ROCHESTER HILLS
OKLAND COUNTY, MICHIGAN

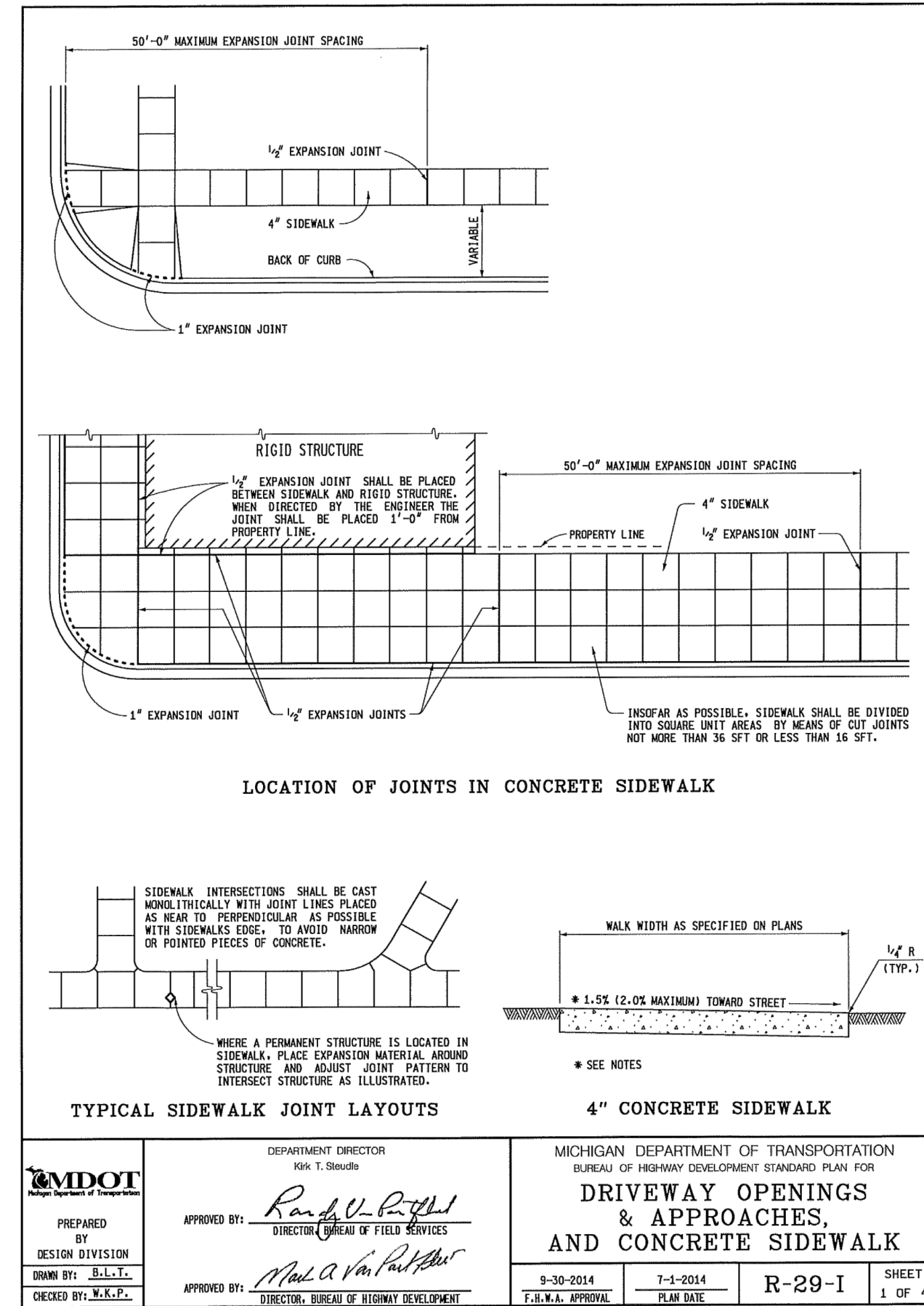
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CITY FILE #21-030 SECTION #9
SCALE: AS SHOWN PROJECT ID: DET-200412

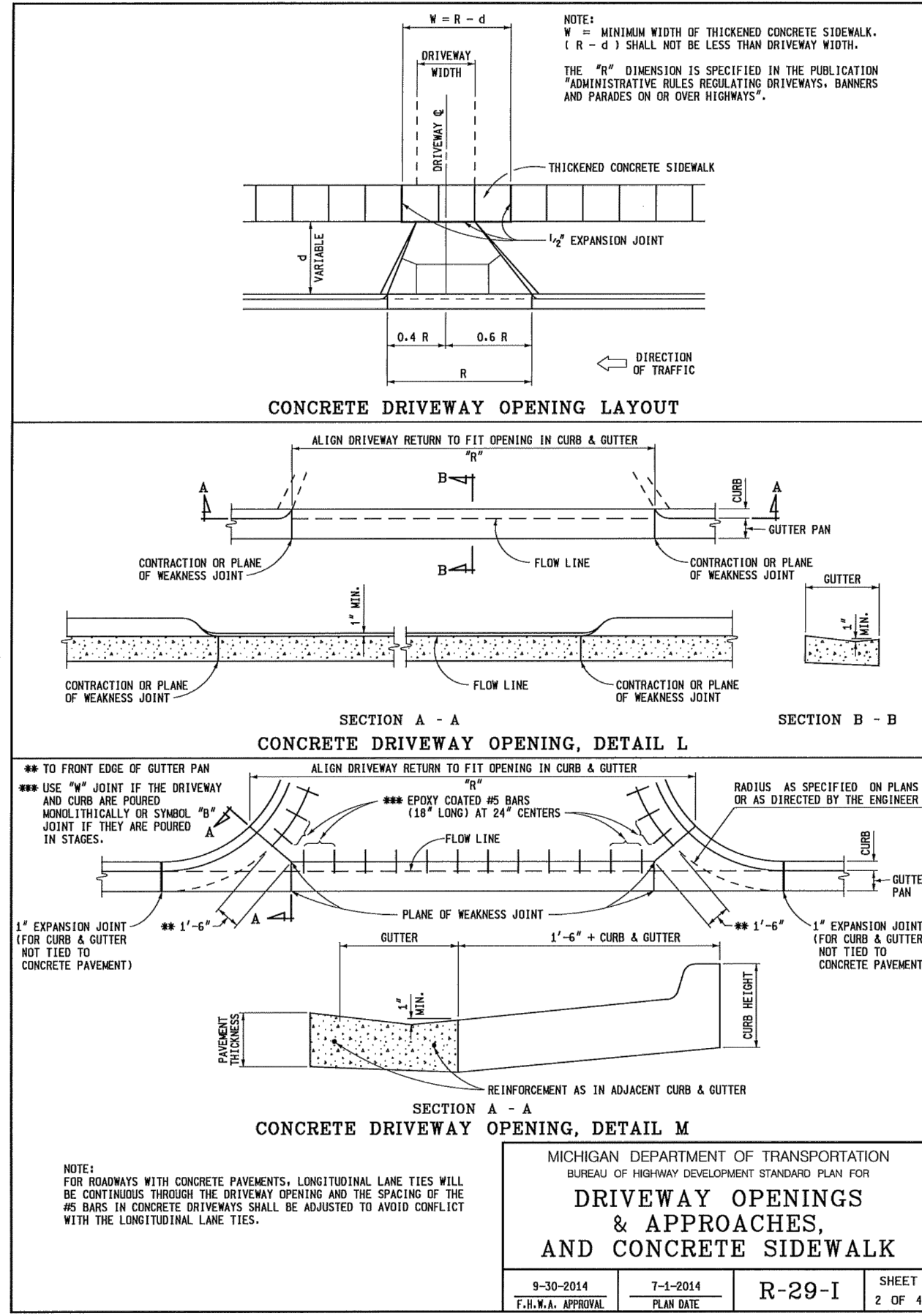
TITLE:
CONSTRUCTION DETAILS

DRAWING:
C-15

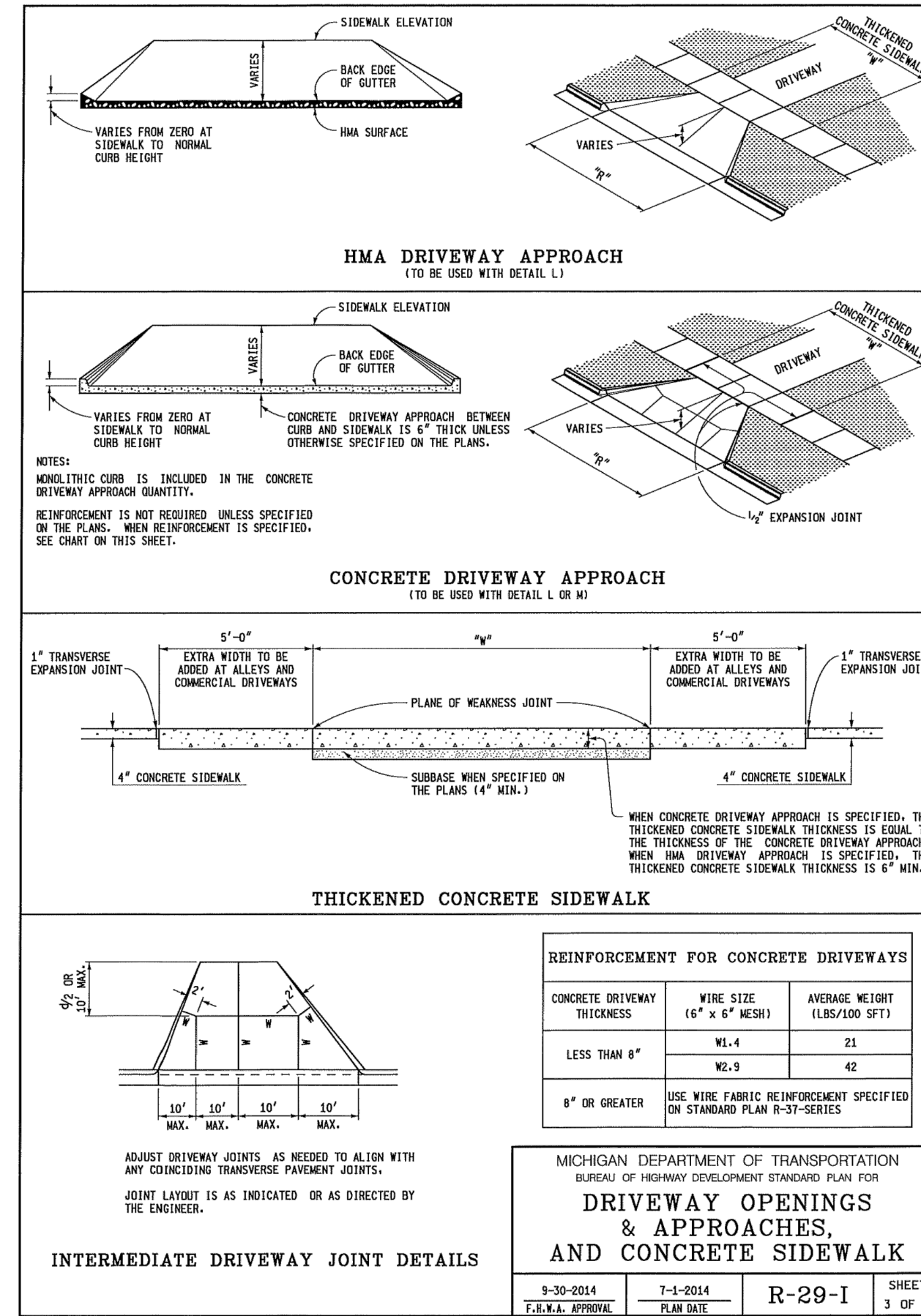
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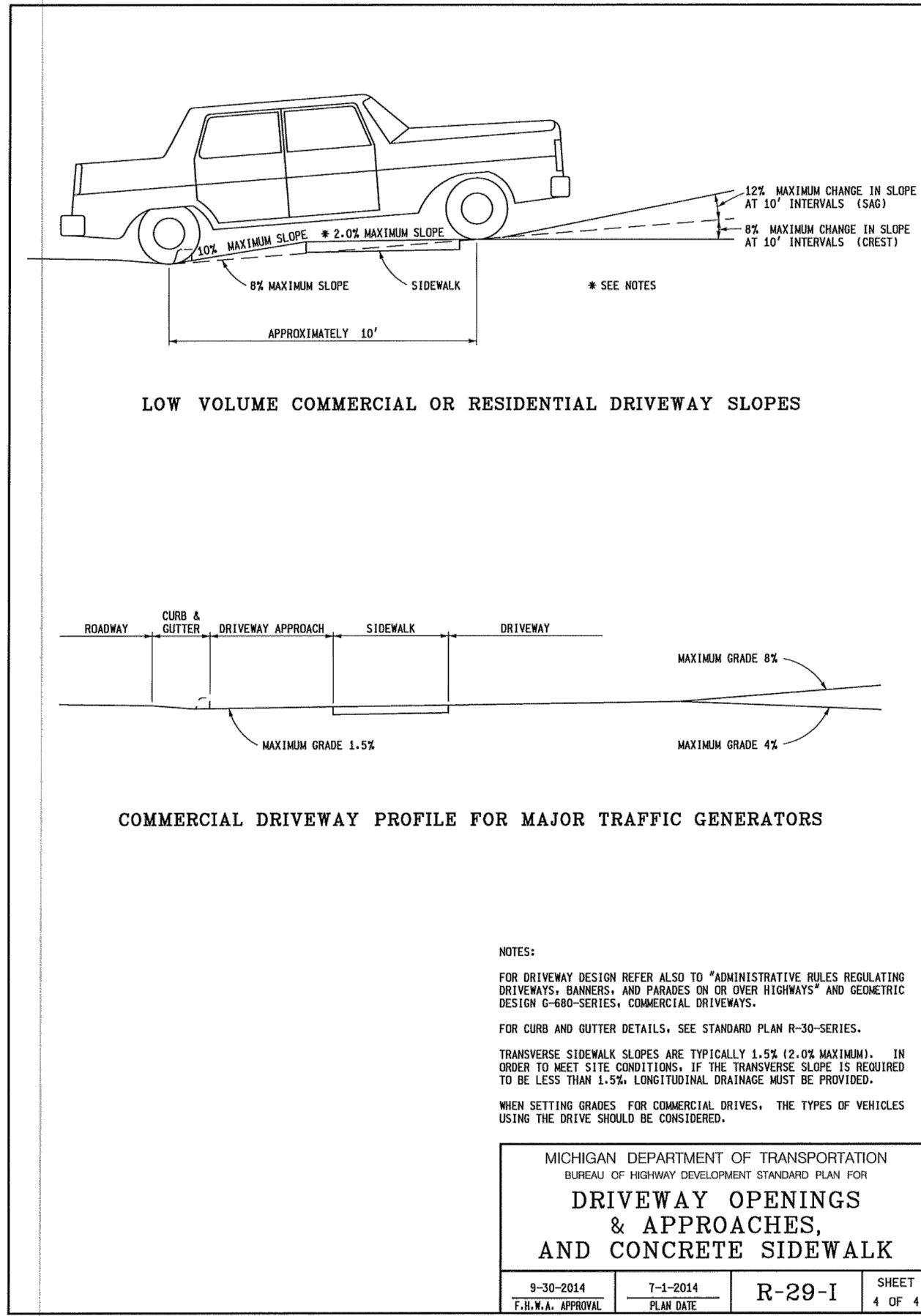
APPROVED BY: <i>Randy U. [Signature]</i> DIRECTOR, BUREAU OF FIELD SERVICES	APPROVED BY: <i>Mark A. [Signature]</i> DIRECTOR, BUREAU OF SURVEY DEVELOPMENT
9-30-2014 T.E.K.A. APPROVAL	7-1-2014 PLAN DATE
R-29-I	
SHEET 1 OF 4	



APPROVED BY: <i>Randy U. [Signature]</i> DIRECTOR, BUREAU OF FIELD SERVICES	APPROVED BY: <i>Mark A. [Signature]</i> DIRECTOR, BUREAU OF SURVEY DEVELOPMENT
9-30-2014 T.E.K.A. APPROVAL	7-1-2014 PLAN DATE
R-29-I	
SHEET 2 OF 4	



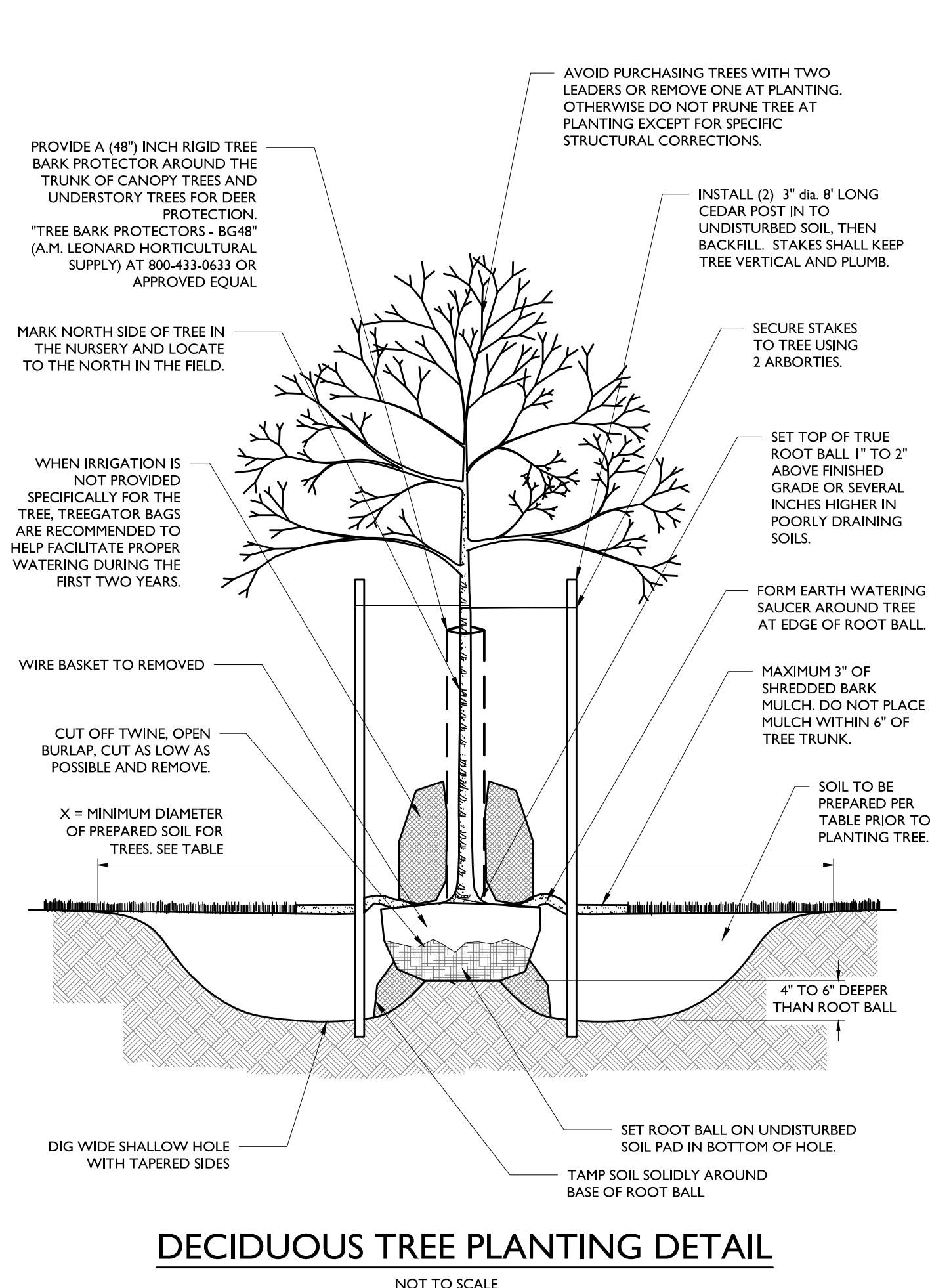
APPROVED BY: <i>Randy U. [Signature]</i> DIRECTOR, BUREAU OF FIELD SERVICES	APPROVED BY: <i>Mark A. [Signature]</i> DIRECTOR, BUREAU OF SURVEY DEVELOPMENT
9-30-2014 T.E.K.A. APPROVAL	7-1-2014 PLAN DATE
R-29-I	
SHEET 3 OF 4	



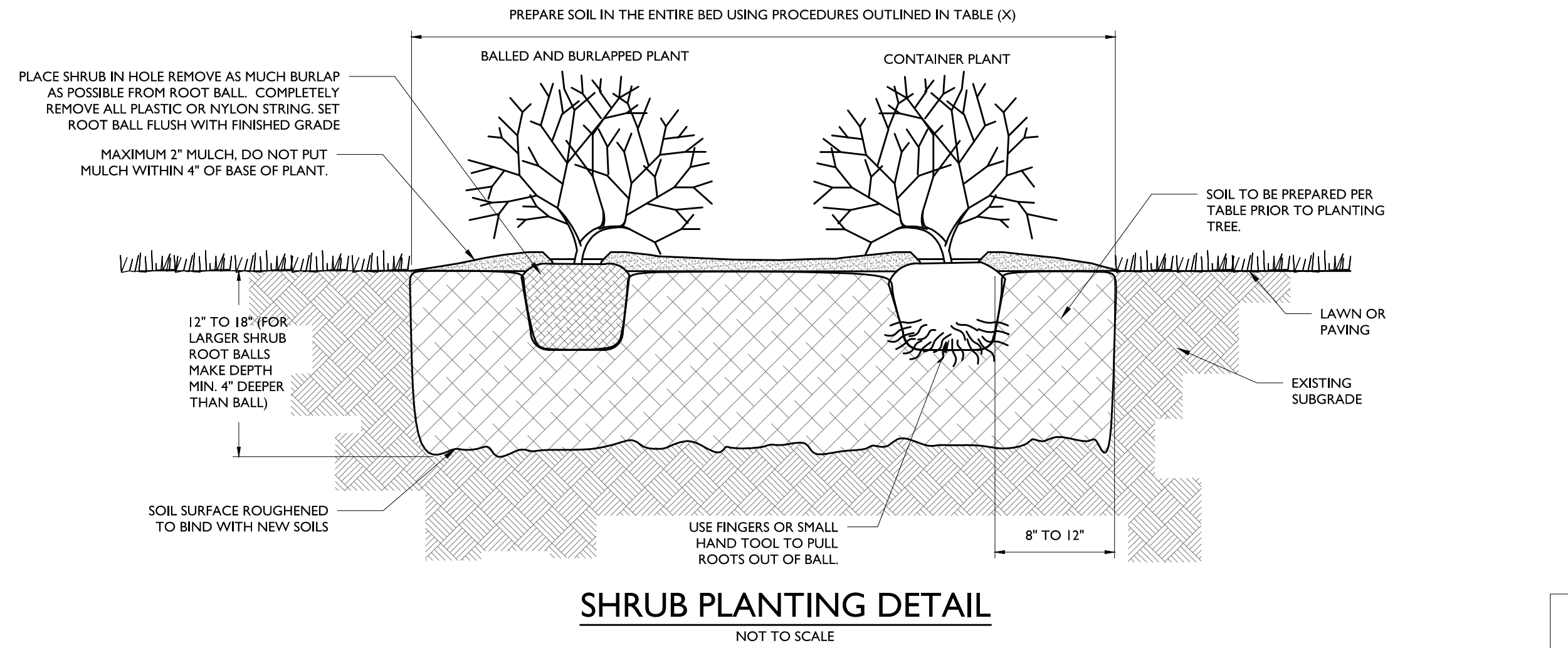
APPROVED BY: <i>Randy U. [Signature]</i> DIRECTOR, BUREAU OF FIELD SERVICES	APPROVED BY: <i>Mark A. [Signature]</i> DIRECTOR, BUREAU OF SURVEY DEVELOPMENT
9-30-2014 T.E.K.A. APPROVAL	7-1-2014 PLAN DATE
R-29-I	
SHEET 4 OF 4	

DRIVEWAY OPENINGS & APPROACHES, AND CONCRETE SIDEWALK (R-29-I)

NOT TO SCALE



2



3

ISSUE	DATE	BY	DESCRIPTION
1	07/08/2011	JRC	SUBMISSION FOR PRE-APPLICATION MEETING
2	08/02/2011	ECM	REVISED PER CITY COMMENTS
3	08/20/2011	RAC	SUBMISSION FOR FIRE DEPARTMENT COMMENTS
4	09/08/2011	RAC	SUBMISSION FOR CITY PLAN APPROVAL
5	12/28/2011	JRC/ECM	REVISED PER CITY SITE PLAN REVIEW
6	02/07/2012	JRC/ECM	REVISED PER CITY SECOND SITE PLAN REVIEW
7	05/28/2012	JRC/ECM	SUBMISSION FOR SITE PLAN APPROVAL

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SITE DEVELOPMENT PLANS

1360 WALTON BLVD

PROPOSED STARBUCKS

STARBUCKS logo

PARCEL ID: 15-09-476-030
1360 WALTON BOULEVARD
CITY OF ROCHESTER HILLS
OAKLAND COUNTY, MICHIGAN

STATE OF MICHIGAN
MICHIGAN PROFESSIONAL ENGINEER

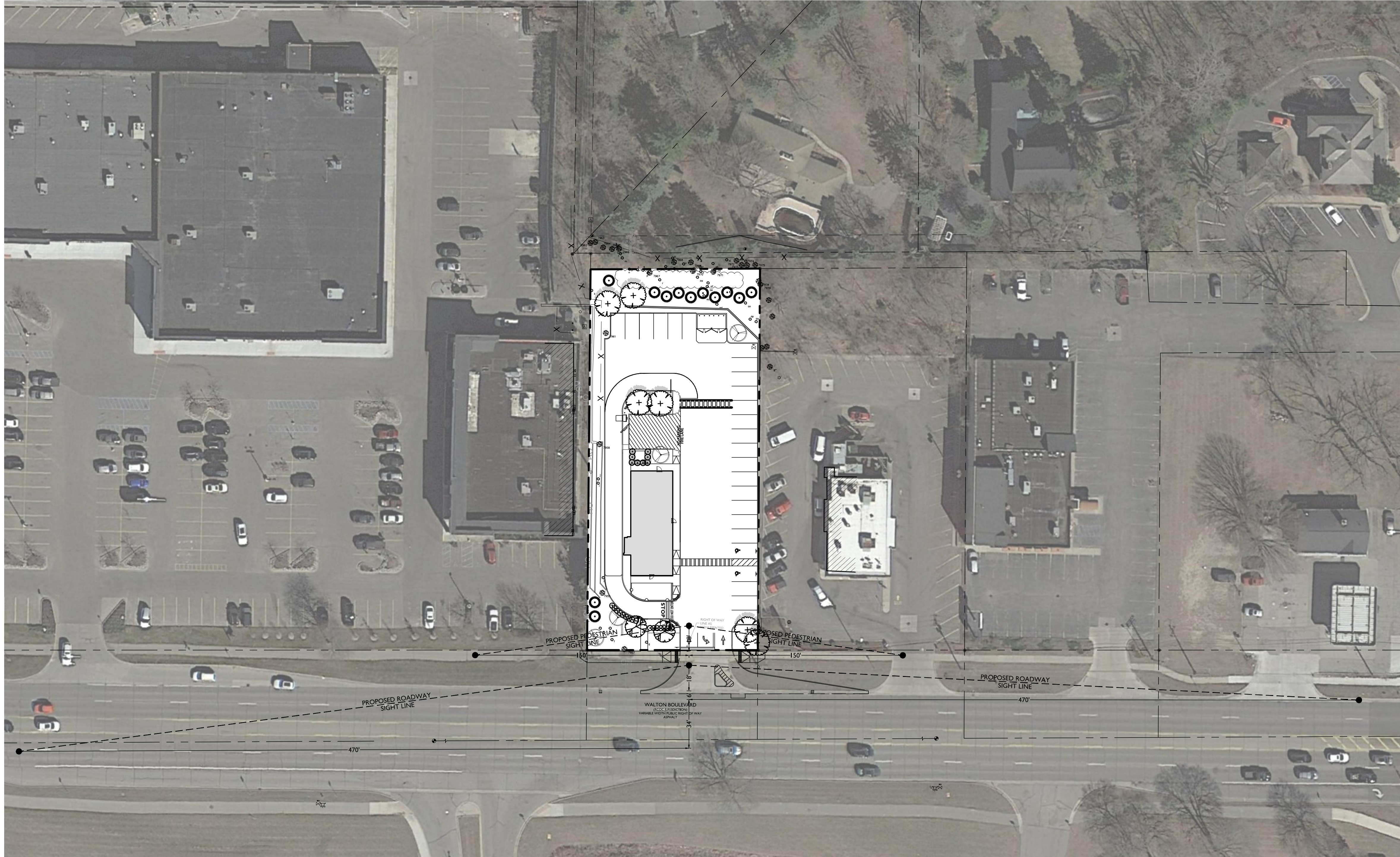
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CITY FILE #21-030 SECTION #9
SCALE: AS SHOWN PROJECT ID: DET-200412

TITLE:
CONSTRUCTION DETAILS

DRAWING:
C-16

W:\072024\DET200412\DEVELOPMENT\0001\1360 WALTON BOULEVARD, ROCHSTER HILLS, MICHIGAN\DET200412\175087.DWG

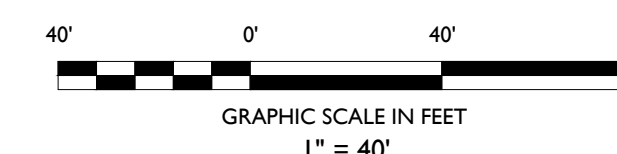


SYMBOL DESCRIPTION

--- PROPERTY LINE

GENERAL NOTES

1. THE CONTRACTOR SHALL VERIFY AND FAMILIARIZE THEMSELVES WITH THE EXISTING SITE CONDITIONS AND THE PROPOSED SCOPE OF WORK (INCLUDING DIMENSIONS, LAYOUT, ETC.) PRIOR TO INITIATING THE IMPROVEMENTS IDENTIFIED WITHIN THESE DOCUMENTS. SHOULD ANY DISCREPANCY BE FOUND BETWEEN THE EXISTING SITE CONDITIONS AND THE PROPOSED WORK THE CONTRACTOR SHALL NOTIFY STONEFIELD ENGINEERING & DESIGN, LLC PRIOR TO THE START OF CONSTRUCTION.
2. THE CONTRACTOR SHALL OBTAIN ALL NECESSARY PERMITS AND ENSURE THAT ALL REQUIRED APPROVALS HAVE BEEN OBTAINED PRIOR TO THE START OF CONSTRUCTION. COPIES OF ALL REQUIRED PERMITS AND APPROVALS SHALL BE KEPT ON SITE AT ALL TIMES DURING CONSTRUCTION.
3. ALL CONTRACTORS WILL, TO THE FULLEST EXTENT PERMITTED BY LAW, INDEMNIFY AND HOLD HARMLESS STONEFIELD ENGINEERING & DESIGN, LLC, AND ITS SUB-CONSULTANTS FROM AND AGAINST ANY DAMAGES AND LIABILITIES INCLUDING ATTORNEY'S FEES ARISING OUT OF CLAIMS CONNECTED TO THE PROJECT AS A RESULT OF NOT CARRYING THE PROPER INSURANCE FOR WORKERS COMPENSATION, LIABILITY INSURANCE, AND LIMITS OF COMMERCIAL GENERAL LIABILITY INSURANCE.
4. THE CONTRACTOR SHALL NOT DEVIATE FROM THE PROPOSED IMPROVEMENTS IDENTIFIED WITHIN THIS PLAN SET UNLESS APPROVAL IS PROVIDED IN WRITING BY STONEFIELD ENGINEERING & DESIGN, LLC.
5. THE CONTRACTOR IS RESPONSIBLE TO DETERMINE THE MEANS AND METHODS OF CONSTRUCTION.
6. THE CONTRACTOR SHALL NOT PERFORM ANY WORK OR CAUSE DISTURBANCE ON A PRIVATE PROPERTY NOT CONTROLLED BY THE PERSON OR ENTITY WHO HAS AUTHORIZED THE WORK WITHOUT PRIOR WRITTEN CONSENT FROM THE OWNER OF THE PRIVATE PROPERTY.
7. THE CONTRACTOR IS RESPONSIBLE TO RESTORE ANY DAMAGED OR UNDERMINED STRUCTURE OR SITE FEATURE THAT IS IDENTIFIED TO REMAIN ON THE PLAN SET. ALL REPAIRS SHALL USE NEW MATERIALS TO RESTORE THE FEATURE TO ITS EXISTING CONDITION AT THE CONTRACTOR'S EXPENSE.
8. CONTRACTOR IS RESPONSIBLE TO PROVIDE THE APPROPRIATE SHOP DRAWINGS, PRODUCT DATA, AND OTHER REQUIRED SUBMITTALS FOR REVIEW. STONEFIELD ENGINEERING & DESIGN, LLC WILL REVIEW THE SUBMITTALS IN ACCORDANCE WITH THE DESIGN INTENT AS REFLECTED WITHIN THE PLAN SET.
9. THE CONTRACTOR IS RESPONSIBLE FOR TRAFFIC CONTROL IN ACCORDANCE WITH MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES, LATEST EDITION.
10. THE CONTRACTOR IS REQUIRED TO PERFORM ALL WORK IN THE PUBLIC RIGHT-OF-WAY IN ACCORDANCE WITH THE APPROPRIATE GOVERNING AUTHORITY AND SHALL BE RESPONSIBLE FOR THE PROCUREMENT OF STREET OPENING PERMITS.
11. THE CONTRACTOR IS REQUIRED TO RETAIN AN OSHA CERTIFIED SAFETY INSPECTOR TO BE PRESENT ON SITE AT ALL TIMES DURING CONSTRUCTION & DEMOLITION ACTIVITIES.
12. SHOULD AN EMPLOYEE OF STONEFIELD ENGINEERING & DESIGN, LLC, BE PRESENT ON SITE AT ANY TIME DURING CONSTRUCTION, IT DOES NOT RELIEVE THE CONTRACTOR OF ANY OF THE RESPONSIBILITIES AND REQUIREMENTS LISTED IN THE NOTES WITHIN THIS PLAN SET.



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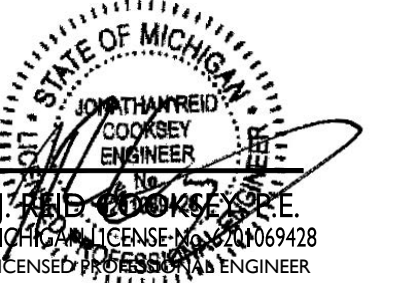
SITE DEVELOPMENT PLANS

1360 WALTON BLVD

PROPOSED STARBUCKS



PARCEL ID: 15-09-476-030
1360 WALTON BOULEVARD
CITY OF ROCHESTER HILLS
OAKLAND COUNTY, MICHIGAN



CITY FILE #21-030 SECTION #9

SCALE: 1" = 40' PROJECT ID: DET-200412

TITLE:

SIGHT DISTANCE PLAN

DRAWING:

C-17

ISSUE	DATE	BY	DESCRIPTION
7	05/28/2022	JRC/ECM	SUBMISSION FOR SITE PLAN APPROVAL
6	02/09/2022	JRC/ECM	REVISED PER CITY SECOND SITE PLAN REVIEW
5	12/28/2021	JRC/ECM	REVISED PER CITY SITE PLAN REVIEW
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