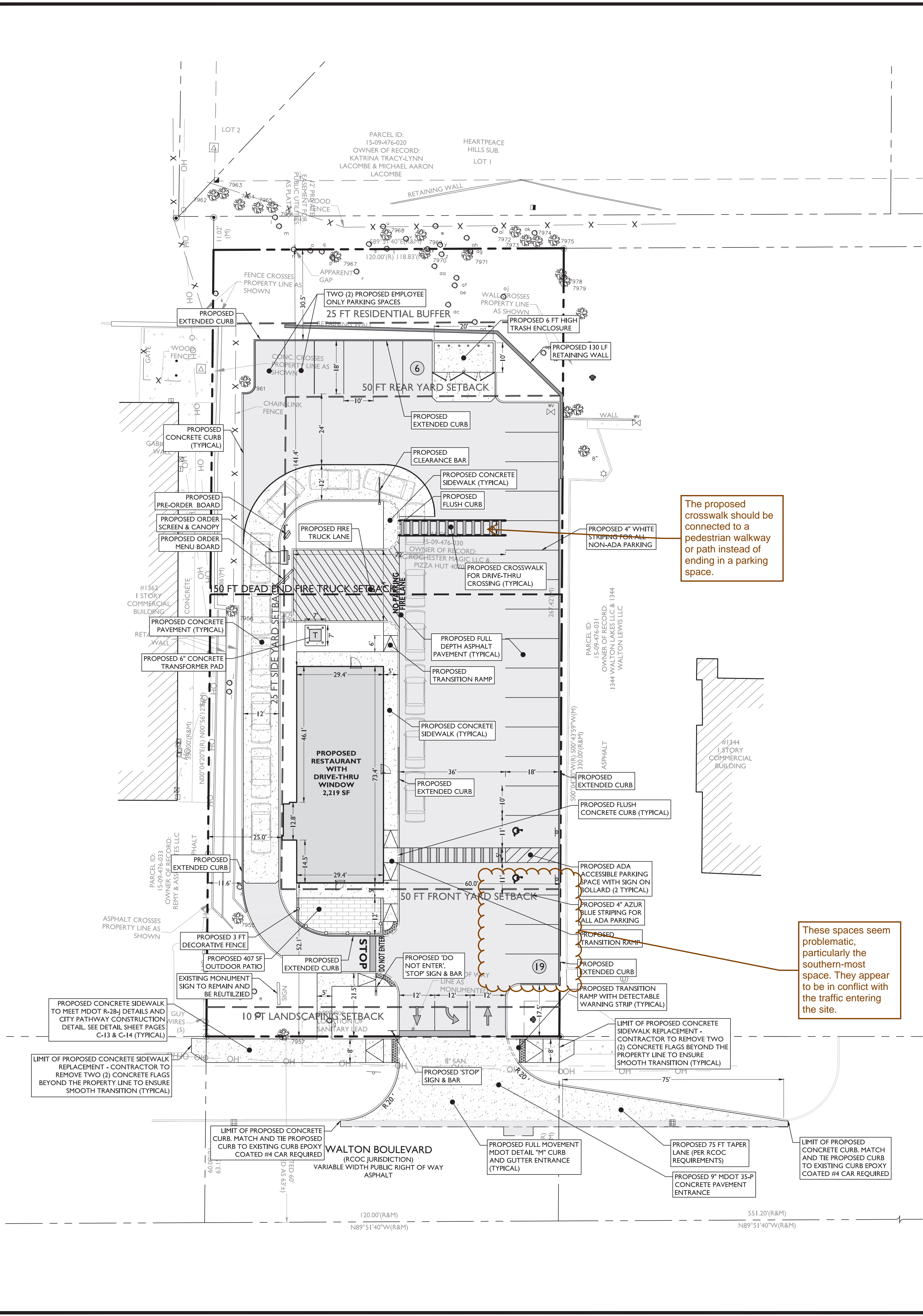






VERTICAL CURVE DATA: VERTICAL DEVELOPMENT: GROUND: 1360 WALTON BOULEVARD, HOCHSTETTER HILLS, MI: 48226



### LAND USE AND ZONING

PARCEL ID: 15-09-476-030  
GENERAL BUSINESS (B-2) & FLEXIBLE BUSINESS OVERLAY (FB-2)

PROPOSED USE		
ZONING REQUIREMENT	REQUIRED	PROPOSED
RESTAURANT W/ DRIVE-THRU	CONDITIONAL USE	
MINIMUM LOT AREA	N/A	31,868 SF (0.73 AC)
MINIMUM LOT WIDTH	N/A	117.2 FT
MAXIMUM BUILDING HEIGHT	2 STORIES / 30 FT	1 STORY / <30 FT
MINIMUM FRONT YARD SETBACK	50 FT	50.0 FT
MINIMUM SIDE YARD SETBACK (ONE)	0 FT (1)	25.0 FT
MINIMUM SIDE YARD SETBACK (BOTH)	50 FT	85.0 FT
MINIMUM REAR YARD SETBACK	50 FT	141.4 FT
MINIMUM RESIDENTIAL LANDSCAPE BUFFER	25 FT	30.5 FT
MINIMUM DRIVE-THRU WINDOW SETBACK	10 FT FROM BUILDING FRONT	14.5 FT
MINIMUM FRONT PARKING SETBACK	10 FT LANDSCAPE BUFFER	17.5 FT

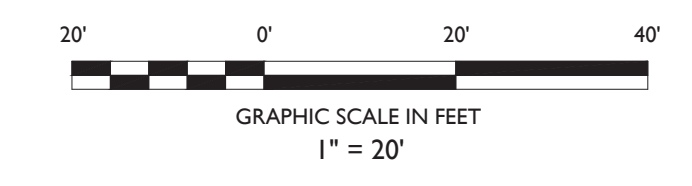
(1) 25 FT SETBACK IS REQUIRED FOR THE EXTERIOR SIDE OF PARCEL OR LOT ON THE EXTERIOR OF THE DISTRICT

### OFF-STREET PARKING REQUIREMENTS

CODE SECTION	REQUIRED	PROPOSED
§ 138-11.204	REQUIRED RESTAURANT PARKING: 1 SPACE PER 2 PERSONS AT MAX OCCUPANCY (50 PERSONS) (1 SPACE / 2 PERSONS) = 25 SPACES	25 SPACES
§ 138-11.204	REQUIRED DRIVE-THRU STACKING: 10 STACKING SPACES	15 SPACES
§ 138-11.302	DIMENSIONAL REQUIREMENTS: 75'-90": 18 FT X 10 FT W/ 24 FT TWO-WAY AISLE	18 FT X 10 FT W/ 24 FT AISLE

SYMBOL	DESCRIPTION
---	PROPERTY LINE
- - - -	SETBACK LINE
- . - . -	SAWCUT LINE
---	PROPOSED CURB
---	PROPOSED EXTENDED CURB
---	PROPOSED FLUSH CURB
○ ○ ○	PROPOSED SIGNS / BOLLARDS
▭	PROPOSED BUILDING
▭	PROPOSED CONCRETE
▭	PROPOSED ASPHALT
○	PROPOSED AREA LIGHT
▭	PROPOSED BUILDING DOORS
○	PROPOSED HANDRAIL

- #### GENERAL NOTES
- 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.
  - 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.
  - 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 BY EMPLOYEES OF THE CONTRACTOR IN ADDITION TO 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.
  - 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.
  - THE CONTRACTOR IS RESPONSIBLE TO DETERMINE THE MEANS AND METHODS OF CONSTRUCTION.
  - 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.
  - 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.
  - 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.
  - THE CONTRACTOR IS RESPONSIBLE FOR TRAFFIC CONTROL IN ACCORDANCE WITH MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES, LATEST EDITION.
  - 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.
  - THE CONTRACTOR IS REQUIRED TO RETAIN AN OSHA CERTIFIED SAFETY INSPECTOR TO BE PRESENT ON SITE AT ALL TIMES DURING CONSTRUCTION & DEMOLITION ACTIVITIES.
  - 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.



NO.	DATE	ISSUE	BY	DESCRIPTION
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		REVISION PER FIRE DEPARTMENT COMMENTS
2	08/02/2021	ECM		REVISION PER CITY COMMENTS
1	07/08/2021	JRC		SUBMISSION FOR PRE-APPLICATION MEETING

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**SITE DEVELOPMENT PLANS**

## 1360 WALTON BLVD

### PROPOSED STARBUCKS

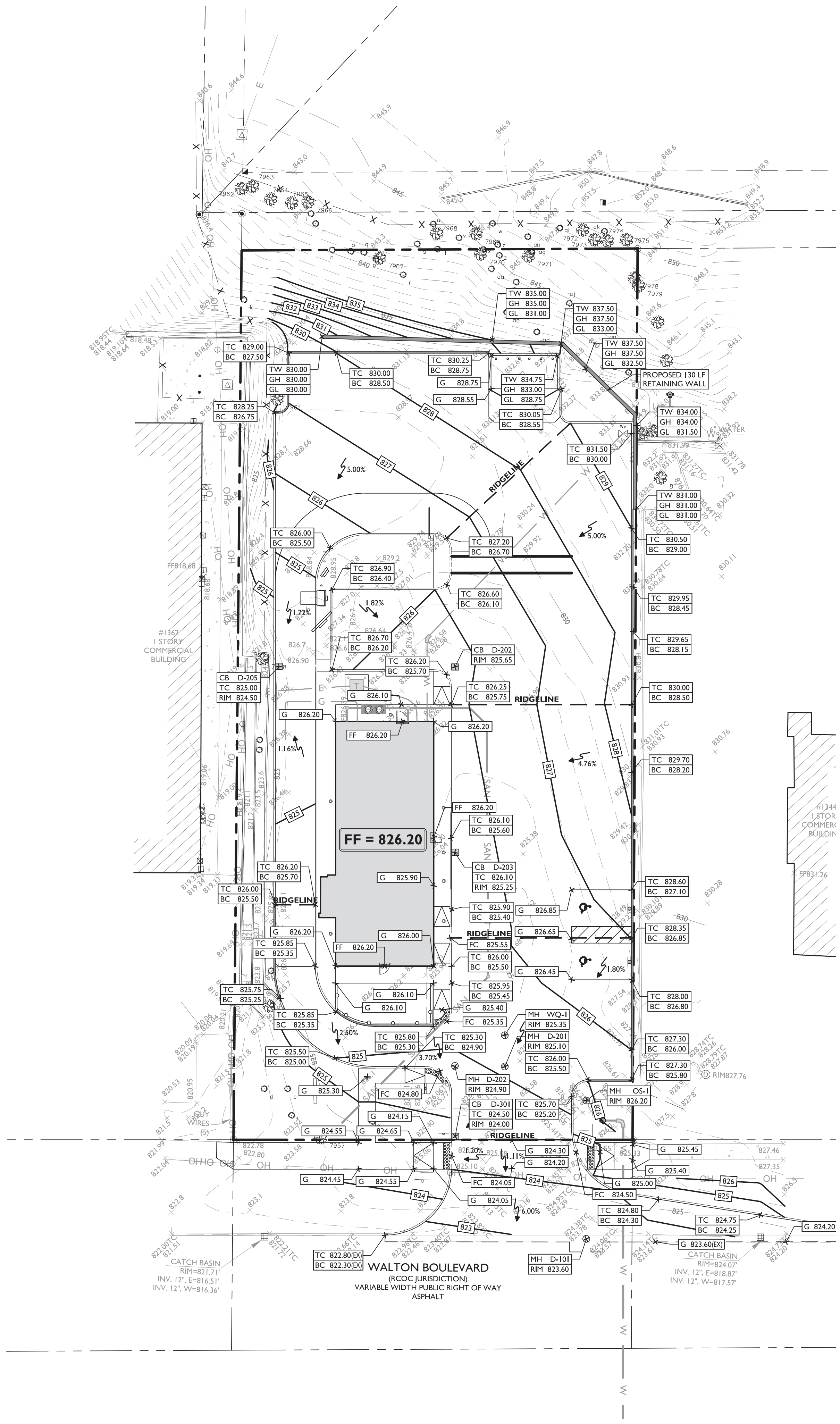
PARCEL ID: 15-09-476-030  
1360 WALTON BOULEVARD  
CITY OF ROCHESTER HILLS  
OKLAHOMA COUNTY, MICHIGAN

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CITY FILE #21-030 SECTION #9  
SCALE: 1" = 20' PROJECT ID: DET-200412

TITLE:  
**SITE PLAN**

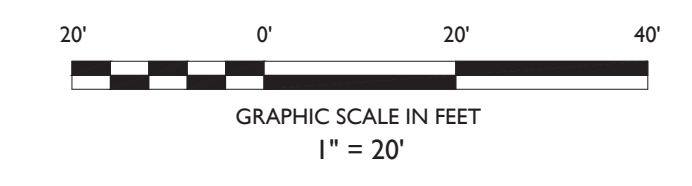
DRAWING:  
**C-3**



SYMBOL	DESCRIPTION
---	PROPERTY LINE
— 100 —	PROPOSED GRADING CONTOUR
— RIDGELINE —	PROPOSED GRADING RIDGELINE
←	PROPOSED DIRECTION OF DRAINAGE FLOW
X — G 100.00	PROPOSED GRADE SPOT SHOT
X — TC 100.50 BC 100.00	PROPOSED TOP OF CURB / BOTTOM OF CURB SPOT SHOT
X — FC 100.00	PROPOSED FLUSH CURB SPOT SHOT
X — TW 102.00 BH 100.00	PROPOSED TOP OF WALL / BOTTOM OF WALL SPOT SHOT

- GRADING NOTES**
- ALL SOIL AND MATERIAL REMOVED FROM THE SITE SHALL BE DISPOSED OF IN ACCORDANCE WITH LOCAL STATE AND FEDERAL REQUIREMENTS. ANY GROUNDWATER DE-WATERING PRACTICES SHALL BE PERFORMED UNDER THE SUPERVISION OF A QUALIFIED PROFESSIONAL. THE CONTRACTOR IS REQUIRED TO OBTAIN ALL NECESSARY PERMITS FOR THE DISCHARGE OF DE-WATERED GROUNDWATER. ALL SOIL IMPORTED TO THE SITE SHALL BE CERTIFIED CLEAN FILL. CONTRACTOR SHALL MAINTAIN RECORDS OF ALL FILL MATERIALS BROUGHT TO THE SITE.
  - THE CONTRACTOR IS REQUIRED TO PROVIDE TEMPORARY AND/OR PERMANENT SHORING WHERE REQUIRED DURING EXCAVATION ACTIVITIES INCLUDING BUT NOT LIMITED TO UTILITY TRENCHES TO ENSURE THE STRUCTURAL INTEGRITY OF NEARBY STRUCTURES AND STABILITY OF THE SURROUNDING SOILS.
  - PROPOSED TOP OF CURB ELEVATIONS ARE GENERALLY 4 INCHES TO 7 INCHES ABOVE EXISTING GRADES UNLESS OTHERWISE NOTED. THE CONTRACTOR WILL SUPPLY ALL STAKEOUT CURB GRADE SHEETS TO STONEFIELD ENGINEERING & DESIGN, LLC. FOR REVIEW AND APPROVAL PRIOR TO POURING CURBS.
  - THE CONTRACTOR IS RESPONSIBLE TO SET ALL PROPOSED UTILITY COVERS AND RESET ALL EXISTING UTILITY COVERS WITHIN THE PROJECT LIMITS TO PROPOSED GRADE IN ACCORDANCE WITH ANY APPLICABLE MUNICIPAL COUNTY, STATE AND/OR UTILITY AUTHORITY REGULATIONS.
  - MINIMUM SLOPE REQUIREMENTS TO PREVENT PONDING SHALL BE AS FOLLOWS:
    - CURB GUTTER: 0.50%
    - CONCRETE SURFACES: 1.00%
    - ASPHALT SURFACES: 1.00%
  - A MINIMUM SLOPE OF 1.00% SHALL BE PROVIDED AWAY FROM ALL BUILDINGS. THE CONTRACTOR SHALL ENSURE POSITIVE DRAINAGE FROM THE BUILDING IS ACHIEVED AND SHALL NOTIFY STONEFIELD ENGINEERING & DESIGN, LLC IF THIS CONDITION CANNOT BE MET. FOR PROJECTS WHERE BASEMENTS ARE PROPOSED, THE DEVELOPER IS RESPONSIBLE TO DETERMINE THE DEPTH TO GROUNDWATER AT THE LOCATION OF THE PROPOSED STRUCTURE. IF GROUNDWATER IS ENCOUNTERED WITHIN THE BASEMENT AREA, SPECIAL CONSTRUCTION METHODS SHALL BE UTILIZED AND REVIEWED/APPROVED BY THE CONSTRUCTION CODE OFFICIAL. IF SUMP PUMPS ARE UTILIZED, ALL DISCHARGES SHALL BE CONNECTED DIRECTLY TO THE PUBLIC STORM SEWER SYSTEM WITH APPROVAL FROM THE GOVERNING STORM SEWER SYSTEM AUTHORITY.

- ADA NOTES**
- THE CONTRACTOR SHALL MAINTAIN A MAXIMUM 2.00% SLOPE IN ANY DIRECTION WITHIN THE ADA PARKING SPACES AND ACCESS AISLES.
  - THE CONTRACTOR SHALL PROVIDE COMPLIANT SIGNAGE AT ALL ADA PARKING AREAS IN ACCORDANCE WITH STATE GUIDELINES.
  - THE CONTRACTOR SHALL MAINTAIN A MAXIMUM 5.00% RUNNING SLOPE AND A MAXIMUM OF 2.00% CROSS SLOPE ALONG WALKWAYS WITHIN THE ACCESSIBLE PATH OF TRAVEL (SEE THE SITE PLAN FOR THE LOCATION OF THE ACCESSIBLE PATH). THE CONTRACTOR IS RESPONSIBLE TO ENSURE THE ACCESSIBLE PATH OF TRAVEL IS 36 INCHES WIDE OR GREATER UNLESS INDICATED OTHERWISE WITHIN THE PLAN SET.
  - THE CONTRACTOR SHALL MAINTAIN A MAXIMUM 2.00% SLOPE IN ANY DIRECTION AT ALL LANDINGS. LANDINGS INCLUDE, BUT ARE NOT LIMITED TO, THE TOP AND BOTTOM OF AN ACCESSIBLE RAMP; AT ACCESSIBLE BUILDING ENTRANCES; AT AN AREA IN FRONT OF A WALK-UP ATM; AND AT TURNING SPACES ALONG THE ACCESSIBLE PATH OF TRAVEL. THE LANDING AREA SHALL HAVE A MINIMUM CLEAR AREA OF 60 INCHES BY 60 INCHES UNLESS INDICATED OTHERWISE WITHIN THE PLAN SET.
  - THE CONTRACTOR SHALL MAINTAIN A MAXIMUM 0.33% RUNNING SLOPE AND A MAXIMUM 2.00% CROSS SLOPE ON ANY CURB RAMPS ALONG THE ACCESSIBLE PATH OF TRAVEL. WHERE PROVIDED, CURB RAMP FLARES SHALL NOT HAVE A SLOPE GREATER THAN 10.00%. IF A LANDING AREA IS PROVIDED AT THE TOP OF THE RAMP, FOR ALTERATIONS, A CURB RAMP FLARE SHALL NOT HAVE A SLOPE GREATER THAN 8.33% IF A LANDING AREA IS NOT PROVIDED AT THE TOP OF THE RAMP. CURBS RAMPS SHALL NOT RISE MORE THAN 6 INCHES IN ELEVATION WITHOUT A HANDRAIL. THE CLEAR WIDTH OF A CURB RAMP SHALL BE NO LESS THAN 36 INCHES WIDE.
  - ACCESSIBLE RAMPS WITH A RISE GREATER THAN 6 INCHES SHALL CONTAIN COMPLIANT HANDRAILS ON BOTH SIDES OF THE RAMP AND SHALL NOT RISE MORE THAN 30" IN ELEVATION WITHOUT A LANDING AREA IN BETWEEN RAMP RUNS. LANDING AREAS SHALL ALSO BE PROVIDED AT THE TOP AND BOTTOM OF THE RAMP.
  - A SLIP RESISTANT SURFACE SHALL BE CONSTRUCTED ALONG THE ACCESSIBLE PATH AND WITHIN ADA PARKING AREAS.
  - THE CONTRACTOR SHALL ENSURE A MAXIMUM OF ¼ INCHES VERTICAL CHANGE IN LEVEL ALONG THE ACCESSIBLE PATH. WHERE A CHANGE IN LEVEL BETWEEN ¼ INCHES AND ½ INCHES EXISTS, CONTRACTOR SHALL ENSURE THAT THE TOP ¼ INCH CHANGE IN LEVEL IS BEVELED WITH A SLOPE NOT STEEPER THAN 1 UNIT VERTICAL AND 2 UNITS HORIZONTAL (2:1 SLOPE).
  - THE CONTRACTOR SHALL ENSURE THAT ANY OPENINGS (GAPS OR HORIZONTAL SEPARATION) ALONG THE ACCESSIBLE PATH SHALL NOT ALLOW PASSAGE OF A SPHERE GREATER THAN ¼ INCH.



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3	08/20/2021	RAC		REVISED PER FIRE DEPARTMENT COMMENTS
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1	07/02/2021	JRC		SUBMISSION FOR PRE-APPLICATION MEETING

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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

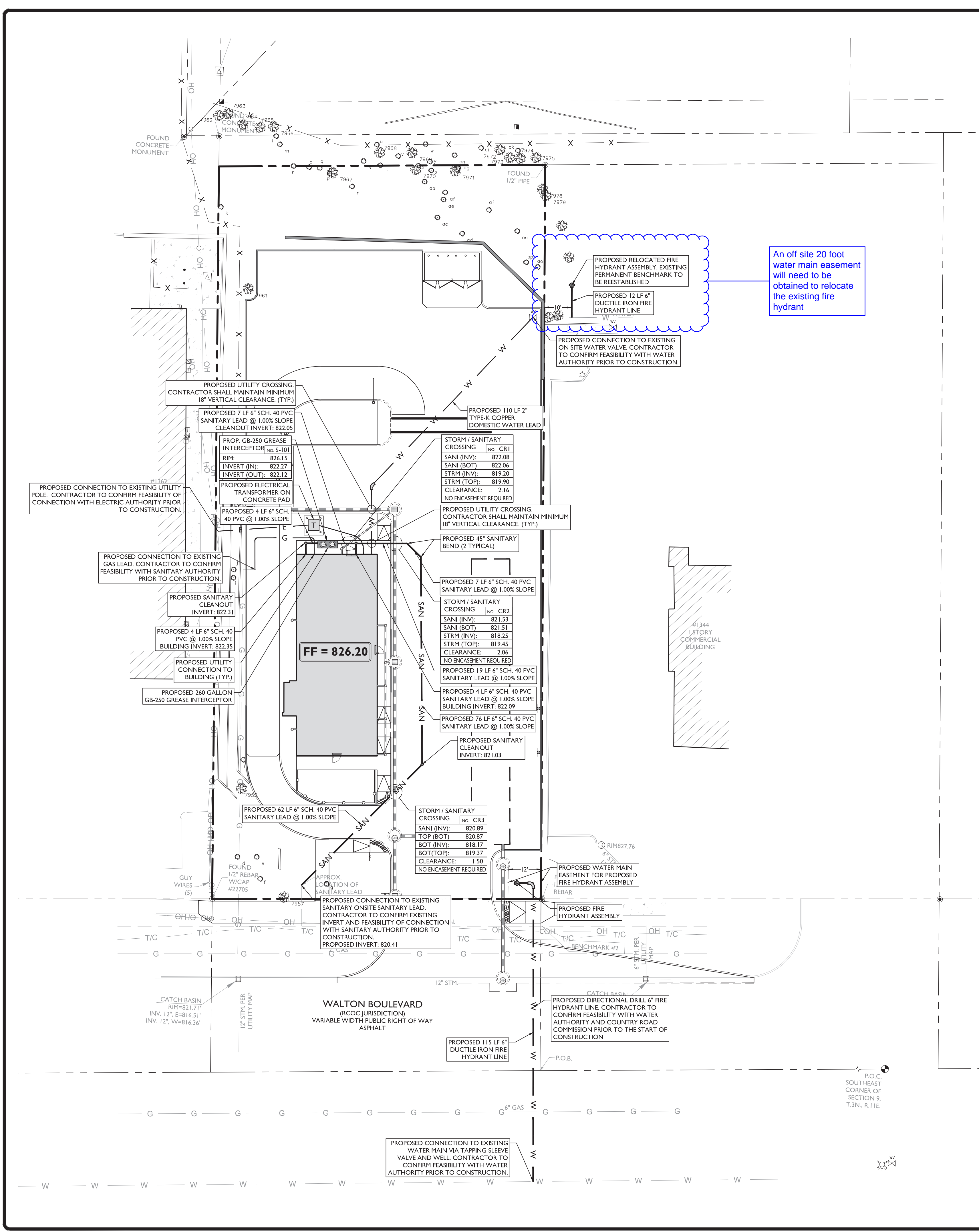
STATE OF MICHIGAN  
JONATHAN REID  
COONEY  
ENGINEER  
PROFESSIONAL

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CITY FILE #21-030 SECTION #9  
SCALE: 1" = 20' PROJECT ID: DET-200412  
TITLE:  
**GRADING PLAN**  
DRAWING:  
**C-4**

VERTICAL CURVE DATA: VERTICAL CURVE DEVELOPMENT: 1360 WALTON BOULEVARD, ROCHESTER HILLS, MICHIGAN, PROJECT # 200412



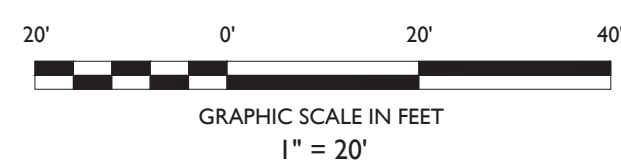


SYMBOL	DESCRIPTION
---	PROPERTY LINE
SAN	PROPOSED SANITARY LATERAL
W	PROPOSED DOMESTIC WATER SERVICE
T/C	PROPOSED DATA CONDUITS
E	PROPOSED ELECTRIC CONDUITS
OH	PROPOSED OVERHEAD WIRES
G	PROPOSED GAS LINE
⊗	PROPOSED VALVE
⊕	PROPOSED WATER TEE / BEND
⊙	PROPOSED FIRE DIRECT CONNECTION (FDC)
⊙	PROPOSED SANITARY MANHOLE / CLEANOUT
⊕	PROPOSED TRANSFORMER ON CONCRETE PAD WITH BOLLARDS

An off site 20 foot water main easement will need to be obtained to relocate the existing fire hydrant

**DRAINAGE AND UTILITY NOTES**

1. THE CONTRACTOR IS REQUIRED TO CALL THE APPROPRIATE AUTHORITY FOR NOTICE OF CONSTRUCTION/EXCAVATION AND UTILITY MARK OUT PRIOR TO THE START OF CONSTRUCTION IN ACCORDANCE WITH STATE LAW. CONTRACTOR IS REQUIRED TO CONFIRM THE HORIZONTAL AND VERTICAL LOCATION OF UTILITIES IN THE FIELD. SHOULD A DISCREPANCY EXIST BETWEEN THE FIELD LOCATION OF A UTILITY AND THE LOCATION SHOWN ON THE PLAN SET OR SURVEY, THE CONTRACTOR SHALL NOTIFY STONEFIELD ENGINEERING & DESIGN, LLC IMMEDIATELY IN WRITING.
2. THE CONTRACTOR IS RESPONSIBLE TO PROTECT AND MAINTAIN IN OPERATION ALL UTILITIES NOT DESIGNATED TO BE REMOVED.
3. THE CONTRACTOR IS RESPONSIBLE FOR REPAIRING ANY DAMAGE TO ANY EXISTING UTILITY IDENTIFIED TO REMAIN WITHIN THE LIMITS OF THE PROPOSED WORK DURING CONSTRUCTION.
4. A MINIMUM HORIZONTAL SEPARATION OF 10 FEET IS REQUIRED BETWEEN ANY SANITARY SEWER SERVICE AND ANY WATER LINES. IF THIS SEPARATION CANNOT BE PROVIDED, A CONCRETE ENCASUREMENT SHALL BE UTILIZED FOR THE SANITARY SEWER SERVICE AS APPROVED BY STONEFIELD ENGINEERING & DESIGN, LLC.
5. ALL WATER LINES SHALL BE VERTICALLY SEPARATED ABOVE SANITARY SEWER LINES BY A MINIMUM DISTANCE OF 18 INCHES. IF THIS SEPARATION CANNOT BE PROVIDED, A CONCRETE ENCASUREMENT SHALL BE UTILIZED FOR THE SANITARY SEWER SERVICE AS APPROVED BY STONEFIELD ENGINEERING & DESIGN, LLC.
6. THE CONTRACTOR TO PERFORM A TEST PIT PRIOR TO CONSTRUCTION (RECOMMEND 30 DAYS PRIOR) AT LOCATIONS OF EXISTING UTILITY CROSSINGS FOR WATER AND SANITARY SEWER CONNECTION IMPROVEMENTS. SHOULD A CONFLICT EXIST, THE CONTRACTOR SHALL IMMEDIATELY NOTIFY STONEFIELD ENGINEERING & DESIGN, LLC IN WRITING.
7. THE CONTRACTOR IS RESPONSIBLE FOR COORDINATING GAS, ELECTRIC AND TELECOMMUNICATION CONNECTIONS WITH THE APPROPRIATE GOVERNING AUTHORITY.
8. CONTRACTOR SHALL START CONSTRUCTION OF ANY GRAVITY SEWER AT THE LOWEST INVERT AND WORK UP-GRADIENT.
9. THE CONTRACTOR IS RESPONSIBLE TO MAINTAIN A RECORD SET OF PLANS REFLECTING THE LOCATION OF EXISTING UTILITIES THAT HAVE BEEN CAPPED, ABANDONED, OR RELOCATED BASED ON THE DEFINITION/REMOVAL ACTIVITIES REQUIRED IN THIS PLAN SET. THIS DOCUMENT SHALL BE PROVIDED TO THE OWNER FOLLOWING COMPLETION OF WORK.
10. THE CONTRACTOR IS RESPONSIBLE TO MAINTAIN A RECORD OF THE AS-BUILT LOCATIONS OF ALL PROPOSED UNDERGROUND INFRASTRUCTURE. THE CONTRACTOR SHALL NOTE ANY DISCREPANCIES BETWEEN THE AS-BUILT LOCATIONS AND THE LOCATIONS DEPICTED WITHIN THE PLAN SET. THIS RECORD SHALL BE PROVIDED TO THE OWNER FOLLOWING COMPLETION OF WORK.
11. CONTRACTOR TO HAND DIG AROUND ALL EXISTING UTILITIES AND STORM SYSTEMS.
12. WITHIN THE INFLUENCE OF THE ROAD AND SIDEWALK, MDOT CLASS II SAND COMPACTED TO 95% MAXIMUM UNIT DENSITY IS REQUIRED.



REVISION	DATE	ISSUE	BY	DESCRIPTION
1	07/02/2021	JRC		SUBMISSION FOR PRE-APPLICATION MEETING
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4	09/02/2021	RAC		SUBMISSION FOR CITY APPROVAL
5	12/28/2021	JRC/ECH		REVISION PER CITY SITE PLAN REVIEW
6	02/09/2022	JRC/ECH		REVISION PER CITY SECOND SITE PLAN REVIEW

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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

STATE OF MICHIGAN  
JOHN W. COONEY  
Professional Engineer  
No. 24823  
Professional Seal

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CITY FILE #21-030 SECTION #9

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

TITLE:  
**UTILITY PLAN**

DRAWING:  
**C-6**

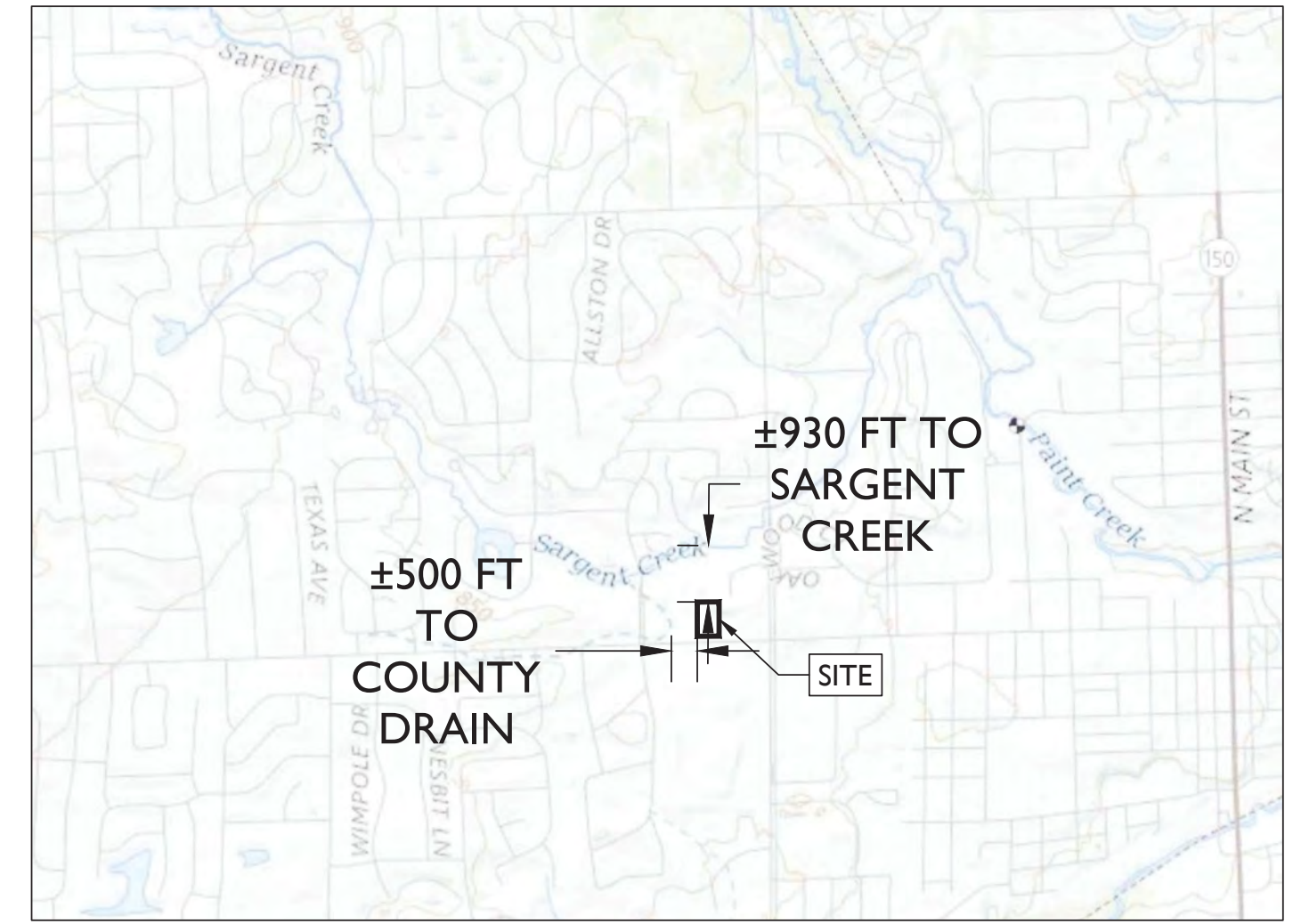
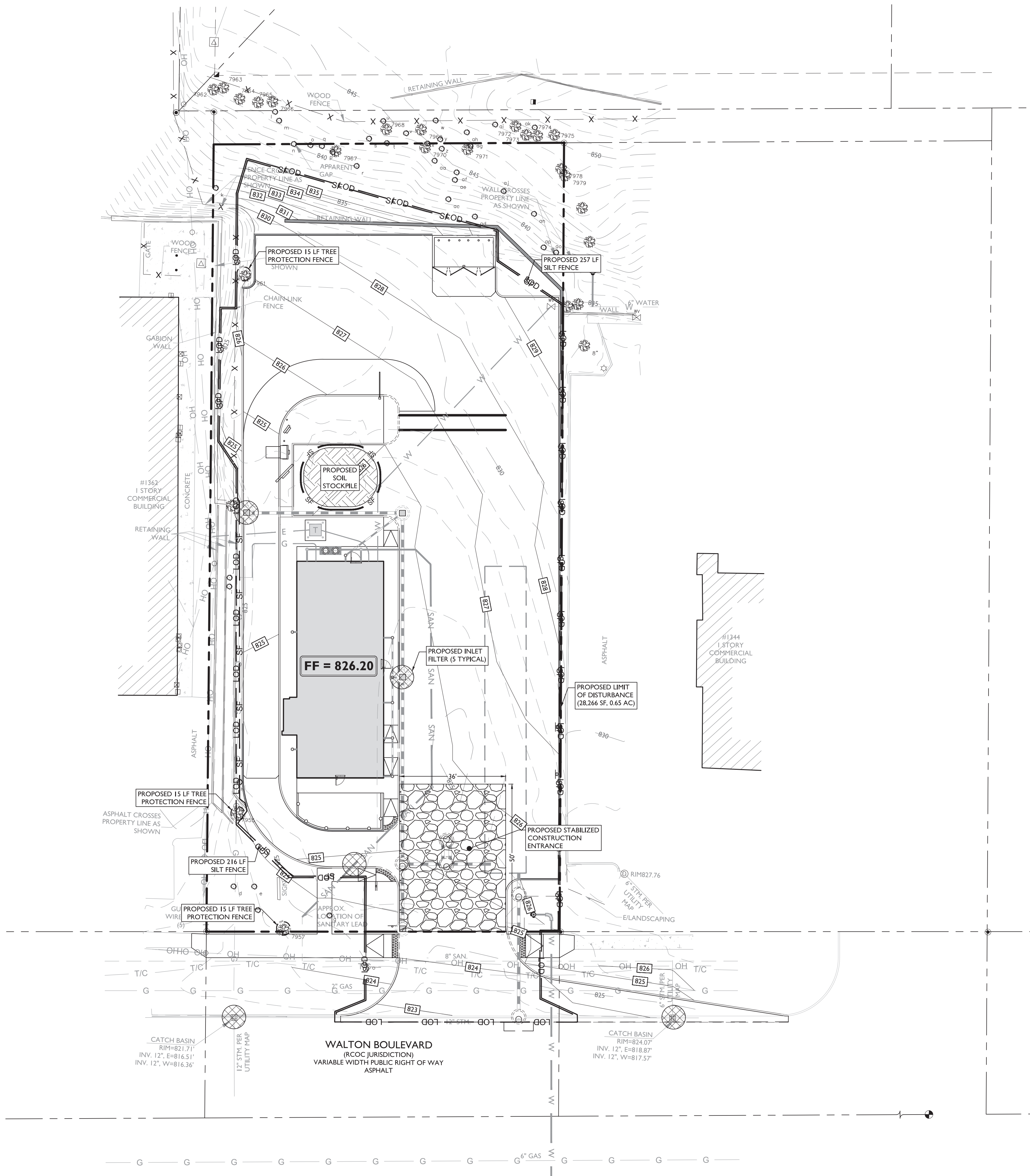
V:\PROJECTS\2021\15-09-476-030\1360 WALTON BOULEVARD, ROCHESTER HILLS, MICHIGAN\CDR\TOPOR\UTIL.DWG







V:\PROJECTS\2024\15-09-476-030\15-09-476-030-1360 WALTON BOULEVARD, ROCHESTER HILLS, MICHIGAN\TOP\811\811-030.DWG



SOURCE: USGS NATIONAL MAPPING SYSTEM  
**LOCATION MAP**  
 SCALE: 1" = 2,000'±

**LEGAL DESCRIPTION:**  
 THE LAND IS DESCRIBED AS FOLLOWS: CITY OF ROCHESTER HILLS, COUNTY OF OAKLAND, STATE OF MICHIGAN  
 TOWN 3 NORTH, RANGE 11 EAST, SECTION 9, PART OF SOUTHEAST 1/4 BEGINNING AT POINT DISTANCE NORTH 89 DEGREES 51 MINUTES 40 SECONDS WEST 551.20 FEET FROM SOUTHEAST SECTION CORNER, THENCE NORTH 89 DEGREES 51 MINUTES 40 SECONDS WEST 120 FEET, THENCE NORTH 00 DEGREES 04 MINUTES 20 SECONDS EAST 330 FEET, THENCE SOUTH 89 DEGREES 51 MINUTES 40 SECONDS EAST 120 FEET, THENCE SOUTH 00 DEGREES 04 MINUTES 20 SECONDS WEST 330 FEET TO BEGINNING, EXCEPT SOUTH 60 FEET IN ROAD.

SYMBOL	DESCRIPTION
---	PROPERTY BOUNDARY
- - - -	ADJACENT PROPERTY BOUNDARY
---	LOD
---	PROPOSED LIMIT OF DISTURBANCE
---	PROPOSED SILT FENCE
---	PROPOSED TREE PROTECTION FENCE
[Pattern]	PROPOSED STOCKPILE & EQUIPMENT STORAGE
[Pattern]	PROPOSED STABILIZED CONSTRUCTION ENTRANCE
[Pattern]	PROPOSED INLET PROTECTION FILTER

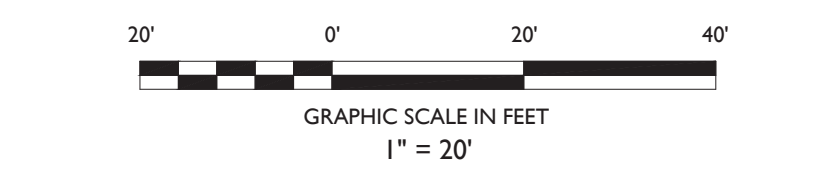
SOIL CHARACTERISTICS CHART	
TYPE OF SOIL	S9 - URBAN LAND
PERCENT OF SITE COVERAGE	100%
HYDROLOGIC SOIL GROUP	N/A
DEPTH TO RESTRICTIVE LAYER	N/A
SOIL PERMEABILITY	N/A
DEPTH TO WATER TABLE	N/A

- SEQUENCE OF CONSTRUCTION**
1. INSTALL SILT FENCE AND CONSTRUCTION ENTRANCE (2 DAYS).
  2. ROUGH GRADING AND TEMPORARY SEEDING (20 DAYS).
  3. EXCAVATE AND INSTALL DRAINAGE PIPING, AND INLETS (20 DAYS).
  4. INSTALL INLET FILTERS (1 DAY).
  5. BUILDING CONSTRUCTION AND SITE IMPROVEMENTS (90 DAYS).
  6. CONSTRUCT RIGHT OF WAY IMPROVEMENTS (2 DAYS).
  7. LANDSCAPING IMPROVEMENTS AND FINAL SEEDING (7 DAYS).
  8. REMOVE SOIL EROSION MEASURES (1 DAY).
- NOTE: TIME DURATIONS ARE APPROXIMATE AND ARE INTENDED TO ACT AS A GENERAL GUIDE TO THE CONSTRUCTION TIMELINE. ALL DURATIONS ARE SUBJECT TO CHANGE BY CONTRACTOR. CONTRACTOR SHALL SUBMIT CONSTRUCTION SCHEDULE TO TOWNSHIP AND ENGINEER. CONTRACTOR SHALL PHASE CONSTRUCTION ACCORDINGLY.



Know what's below  
 Call before you dig.

- SOIL EROSION AND SEDIMENT CONTROL NOTES**
1. THE CONTRACTOR IS RESPONSIBLE FOR SOIL EROSION AND SEDIMENT CONTROL IN ACCORDANCE WITH LOCAL, STATE, AND FEDERAL REQUIREMENTS.
  2. THE CONTRACTOR IS RESPONSIBLE FOR DUST CONTROL IN COMPLIANCE WITH LOCAL, STATE, AND FEDERAL AIR QUALITY STANDARDS.
  3. THE CONTRACTOR IS RESPONSIBLE TO INSPECT ALL SOIL EROSION AND SEDIMENT CONTROL MEASURES WEEKLY AND AFTER A PRECIPITATION EVENT GREATER THAN 1 INCH. THE CONTRACTOR SHALL MAINTAIN AN INSPECTION LOG ON SITE AND DOCUMENT CORRECTIVE ACTION TAKEN THROUGHOUT THE COURSE OF CONSTRUCTION AS REQUIRED.



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NOT APPROVED FOR CONSTRUCTION

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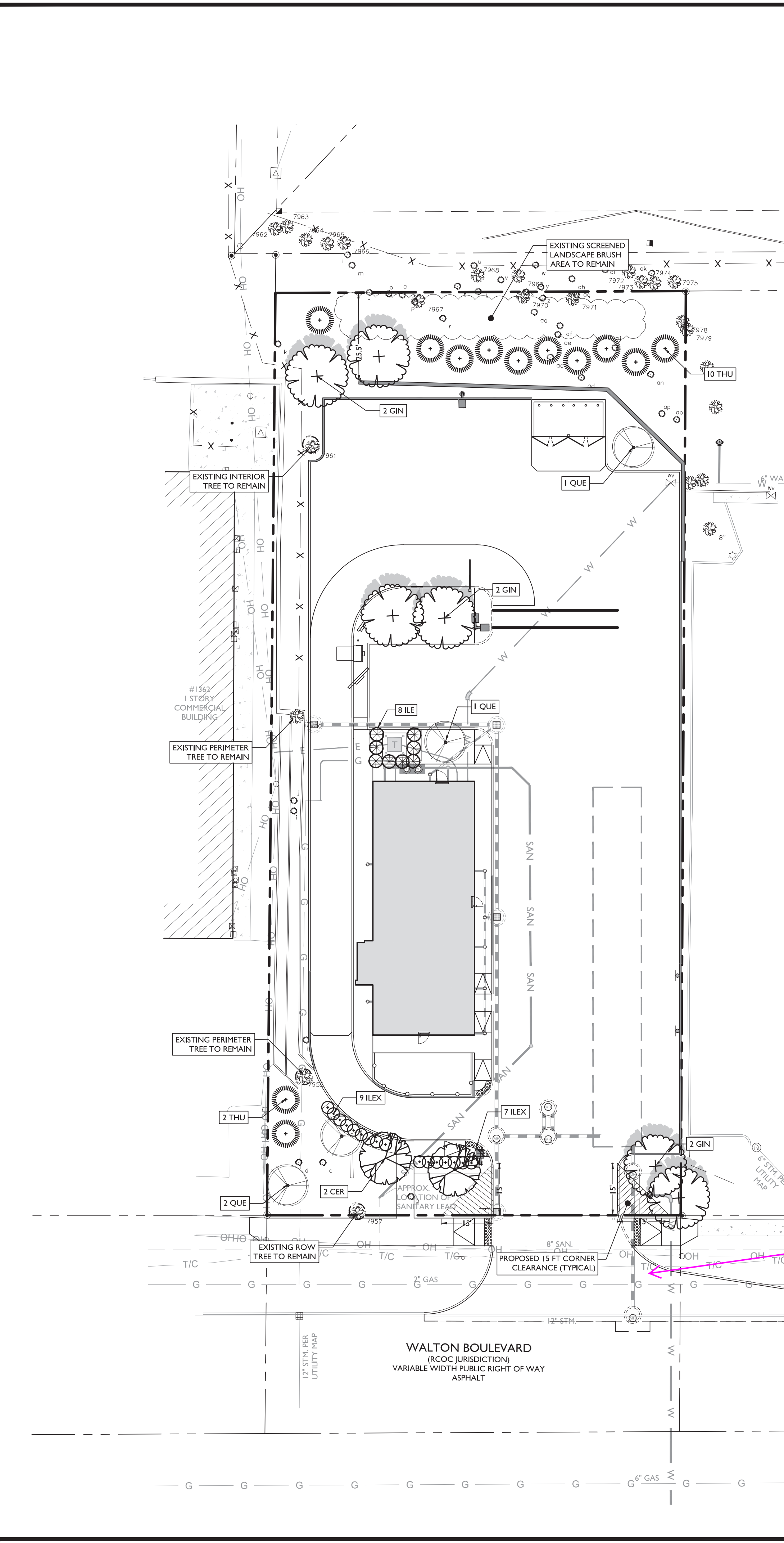
607 Shelby Suite 200, Detroit, MI 48226  
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SITE DEVELOPMENT PLANS  
**1360 WALTON BLVD**  
 PROPOSED STARBUCKS

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

**STONEFIELD**  
 engineering & design

CITY FILE #21-030 SECTION #9  
 SCALE: 1" = 20' PROJECT ID: DET-200412  
 TITLE:  
**SOIL EROSION & SEDIMENT CONTROL PLAN**  
 DRAWING:  
**C-9**



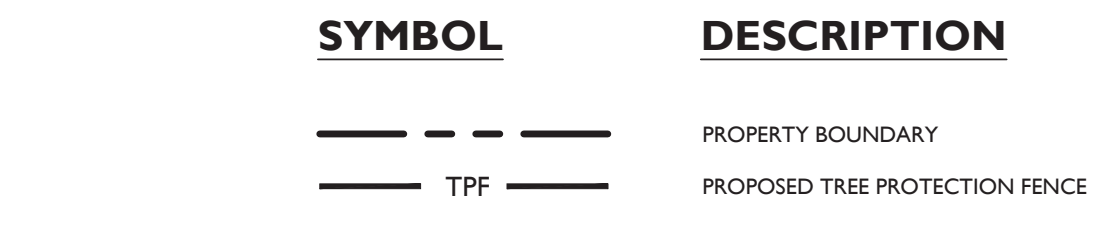
### EXISTING TREE SCHEDULE

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



### TREE MITIGATION REQUIREMENTS

CODE SECTION	REQUIRED	PROPOSED
§ 126-327(2)	MINIMUM PRESERVATION PERCENTAGE: 40% PRESERVATION OF REGULATED TREES 12 REGULATED TREES TO BE PRESERVED 12 TREES X 0.40 = 5 REGULATED TREES	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 LF / 100) = 1.19 (1.19 * 2.5) = 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
	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 AFOREMENTIONED 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 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.

Include Road and Pathway Sight Lines. See attached details and include with the plan detail sheets.

The response letter indicates the submission of a landscape cost estimate but this could not be identified in the plans. A landscape planting cost estimate including irrigation should be provided.

VERTICAL: 2024-07-23 11:56:43 AM WALTON BOULEVARD, ROCHESTER HILLS, MICHIGAN 48063-1115

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

**NOT APPROVED FOR CONSTRUCTION**

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Phone 248.247.1115

**1360 WALTON BLVD**

**PROPOSED STARBUCKS**

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

**STONEFIELD**

engineering & design

STATE OF MICHIGAN  
JONATHAN REID  
COOKEY  
ENGINEER  
MICHIGAN LICENSE # 24812  
10/15/2018

CITY FILE #21-030 SECTION #9

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

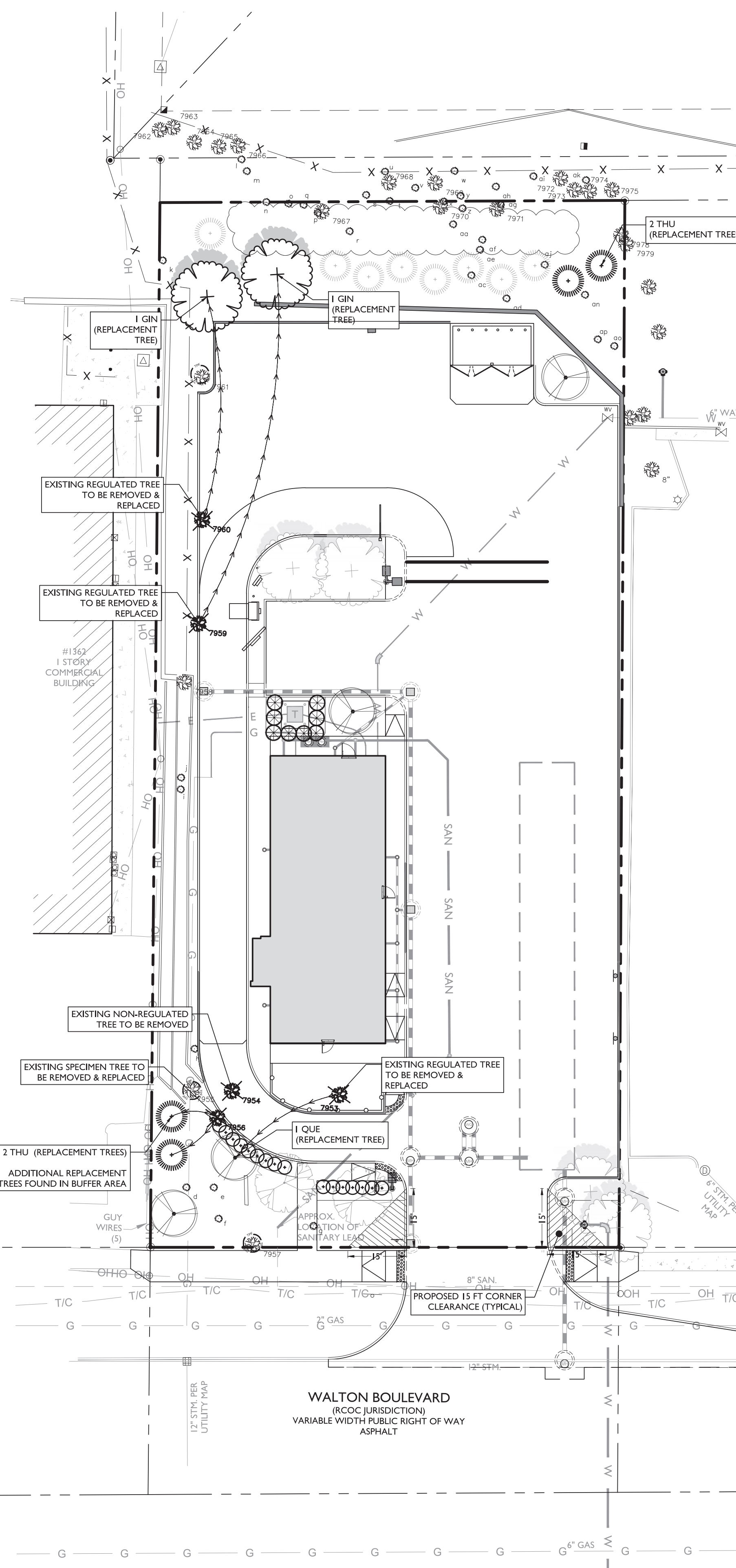
TITLE:

**LANDSCAPING PLAN**

DRAWING:

1" = 20'

**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'	Morus spp.	Crabapple	fair	- Dead branch(es)		R	
7954	5 / 4 / 3 / 3	10'	Magnolia spp.	Magnolia	fair	- Dead branch(es)	N (s)		S
7955	20	25'	Pinus nigra	Austrian Pine	fair	- Thinning			S
7956	20	25'	Pinus nigra	Austrian Pine	fair	- Thinning			S
7957	11	10'	Morus alba	Weeping Mulberry	fair	- Dead branch(es)		R	
7958	5 / 5 / 4 / 4	10'	Gleditsia triacanthos 'Inermis'	Thornless Honeylocust	fair	- V-shaped crotch(es)	N (s)		
7959	12	15'	Gleditsia triacanthos 'Inermis'	Thornless Honeylocust	good			R	
7960	13	15'	Gleditsia triacanthos 'Inermis'	Thornless Honeylocust	good			R	
7961	7 / 7	10'	Gleditsia triacanthos 'Inermis'	Thornless Honeylocust	good			R	
7962	4	5'	Juglans spp.	Walnut	fair	- Contorted crown	N (s)		
7963	5	10'	Juglans spp.	Walnut	good		N (s)		
7964	15 / 9 / 6	20'	Picea pungens	Colorado Spruce	fair	- Stunted & thinning foliage		R	
7965	6	10'	Morus spp.	Mulberry	fair	- Bent/crooked/bowed leader		R	
7966	5	10'	Morus spp.	Mulberry	fair	- Bent/crooked/bowed leader	N (s)		
7967	10 / 10	10'	Picea pungens	Colorado Spruce	fair	- Stunted & thinning foliage		R	
7968	9	10'	Ulmus pumila	Siberian Elm	fair	- Dead branch(es)		R	
7969	12	15'	Ulmus pumila	Siberian Elm	fair	- Grown into fence/wires		R	
7970	7 / 3	10'	Ulmus pumila	Siberian Elm	fair	- Rot in trunk		R	
7971	10 / 7	15'	Ulmus pumila	Siberian Elm	fair	- Rot in trunk		R	
7972	5	10'	Ulmus pumila	Siberian Elm	fair	- Bent/crooked/bowed leader	N (s)		
7973	3	5'	Ulmus pumila	Siberian Elm	fair	- Rot in trunk	N (s)		
7974	2.5	5'	Ulmus pumila	Siberian Elm	fair	- Rot in trunk	N (s)		
7975	2 / 1 / ...	5'	Ulmus pumila	Siberian Elm	fair	- Rot in trunk	N (s)		
7976	2 / 2 / ...	5'	Acer negundo	Boxelder	poor	- 50% or more dead	N (s, c)		
7977	2	5'	Ulmus pumila	Siberian Elm	fair	- Rot in trunk	N (s)		
7978	5 / 3 / ...	10'	Elaeagnus umbellata	Autumn-olive	fair	- Contorted crown	N (s)		
7979	4	5'	Ulmus pumila	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)

### 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
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§ 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
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§ 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	GINCKGO 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.
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  - 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 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.

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

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607 Shelby Suite 200, Detroit, MI 48226  
 Phone 248.247.1115

## 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

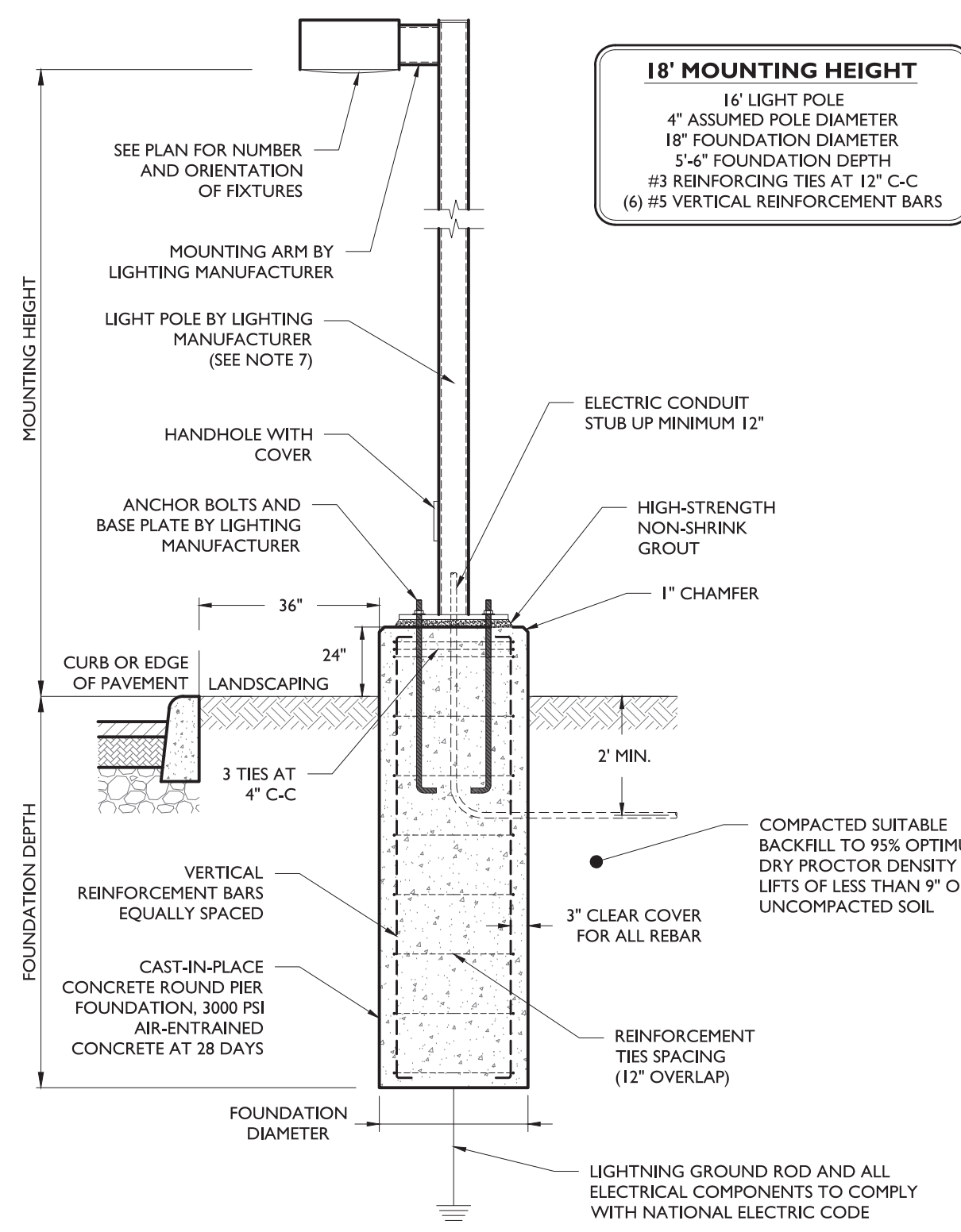
SCALE: 1" = 20' PROJECT ID: DET-200412

TREE REPLACEMENT PLAN

DRAWING: C-11

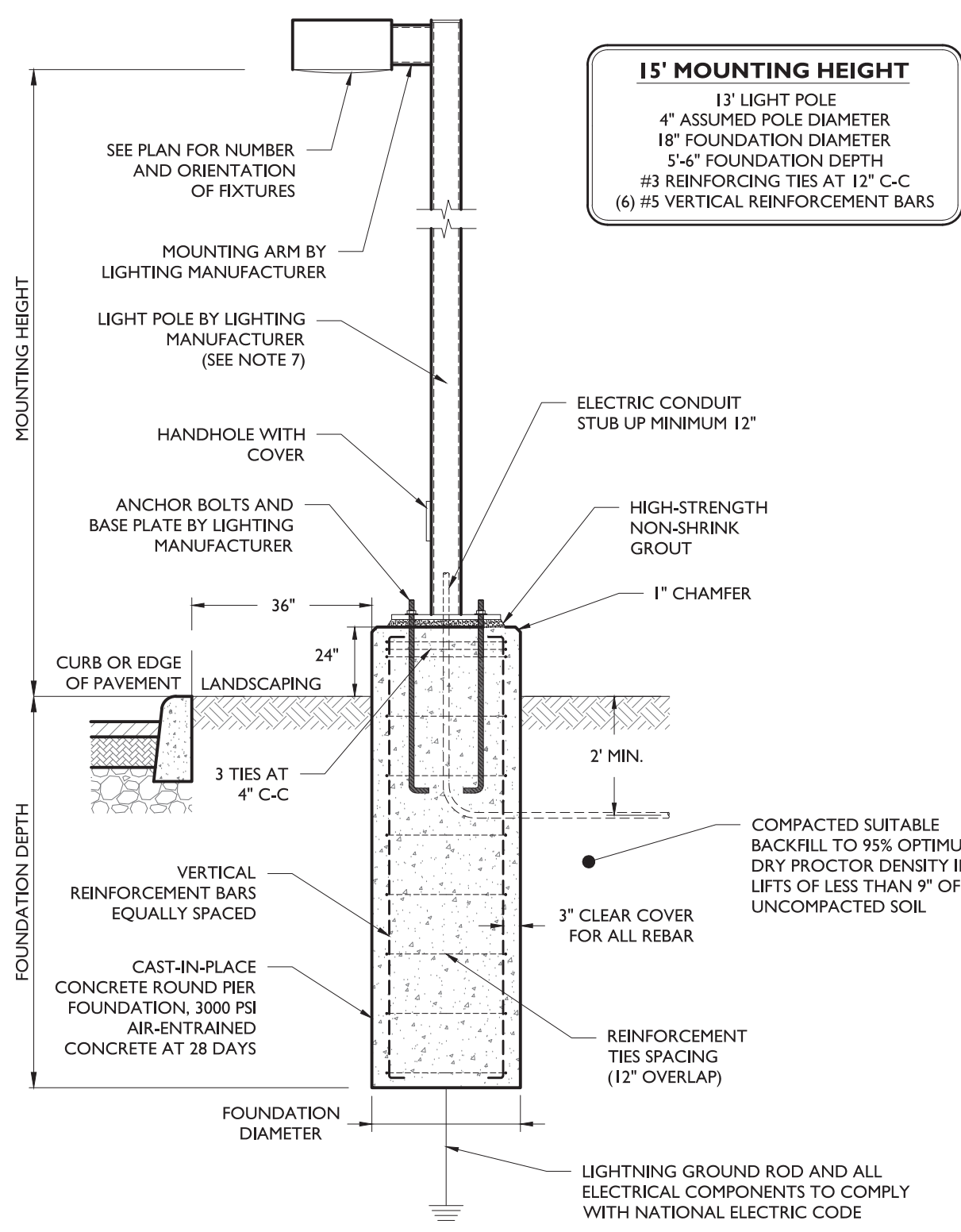






**LIGHT POLE INSTALLATION DETAIL**

- NOT TO SCALE
- 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" (WITHIN 1" TOLERANCE).
  - POLE SHALL BE RATED FOR 10 MPH HIGHER THAN MAXIMUM WIND SPEED 33FT ABOVE GROUND FOR THE AREA BASED ON ANSIA/ASSE 7-93.
  - POUR TO BE TERMINATED AT A FORM.
  - WORK SHALL CONFORM TO A.C.I. BEST PRACTICES FOR APPROPRIATE TEMPERATURE AND WEATHER CONDITIONS. CONTRACTOR TO TEMPORARILY SUPPORT ADJACENT SOIL AND STRUCTURES DURING EXCAVATION IF REQUIRED.



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Project	Catalog #	Type
Prepared by	Notes	Date



**Lumark**  
PRV / PRV-XL Prevail LED

Area / Site Luminaire

**Product Features**

- Wave.Linx
- Enlighted

- Interactive Menu**
- Ordering Information page 2
  - Mounting Details page 3
  - Optical Configurations page 3
  - Product Specifications page 4
  - Energy and Performance Data page 4
  - Control Options page 4



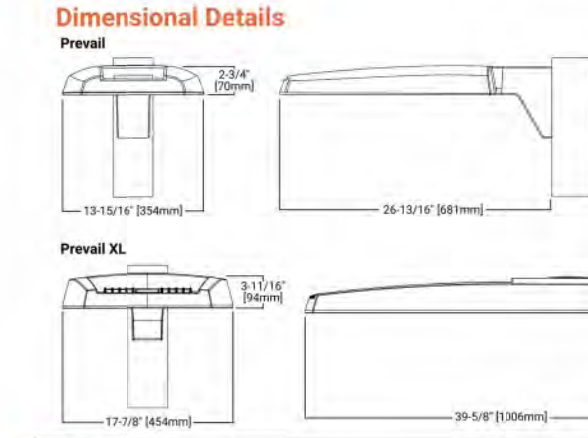
- Quick Facts**
- Lumen packages range from 7,100 - 48,600 lumens (50W - 350W)
  - Replaces 70W up to 1,000W HID equivalents
  - Efficacies up to 148 lumens per watt
  - Energy and maintenance savings up to 85% versus HID solutions
  - Standard universal quick mount arm with universal drill pattern

**Product Certifications**

• ETL

• IP66

• 5 YEAR



COOPER Lighting Solutions

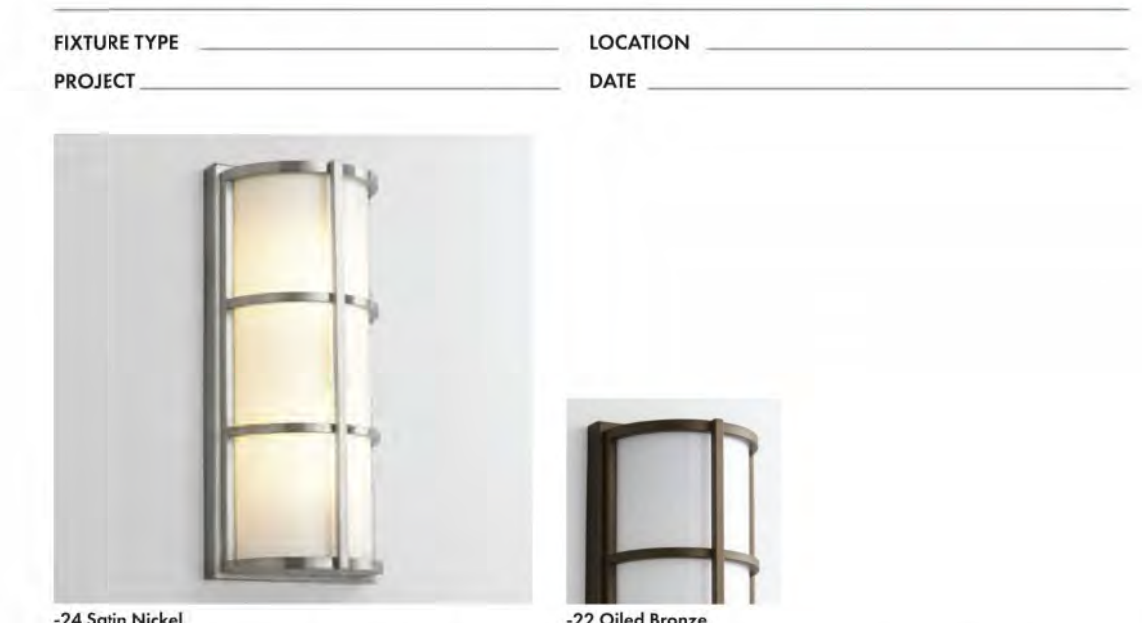
**LIGHT FIXTURES 'A-C' SPECIFICATIONS**

NOT TO SCALE

**LEDA Outdoor**

120v: **3-712-2xx**

277v: **37-712-2xx**



FIXTURE TYPE: \_\_\_\_\_ LOCATION: \_\_\_\_\_

PROJECT: \_\_\_\_\_ DATE: \_\_\_\_\_

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

**LUMINAIRE POWER**: 13.0W at 120V

**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 dPhase (EVI) Dimming - SD/60Hz 100% to 10% Dimming

**CONSTRUCTION**: Cast Aluminum and Acrylic

**DIFFUSER**: -2 Matte White Acrylic

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

**MOUNTING**: 4" Octagonal J-Box (Installer must provide a bead of caulk between fixture housing and mounting surface)

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

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

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

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

**LIGHT FIXTURE 'D' SPECIFICATIONS**

NOT TO SCALE

**Mirada Medium Wall Sconce (XWM)**  
Outdoor LED Wall Sconce

IK08

Overview	
Lumen Range	3,000 - 12,000
Wattage Range	23 - 102
Efficacy Range (LPW)	107 - 140
Weight (total)	30 (13.6)

**QUICK LINKS**

Ordering Guide	Performance	Photometrics	Dimensions

**FEATURES & SPECIFICATIONS**

**Construction**

- Rugged die-cast aluminum housing contains factory prewired driver and optical unit. Hinged die-cast aluminum wiring access door located underneath.
- Galvanized-steel universal wall mount bracket comes standard with hinging mechanism to easily access the junction box wire connections without removing the luminaire.
- Optional pole-mounting bracket (XPM) permits mounting to standard poles.
- Fixtures are finished with LSi's Duragrip polyester powder coat finishing process. The Duragrip finish withstands extreme weather changes without cracking or peeling. Other standard LSi finishes available. Consult factory.
- Shipping weight: 30 lbs in carton.

**Optical System**

- State-of-the-Art one-piece silicone optic sheet delivers industry leading optical control with an integrated gasket to provide IP65 rated sealed optical chamber in 1 component.
- Prismatic silicone refractor optics provide exceptional coverage and uniformity in Type 2, 3, and Forward Throw (FT) distributions.
- Silicone optical material does not yellow or crack with age and provides a typical light transmittance of 93%.
- Zero weight.
- Available in 5000K, 4000K and 3000K color temperatures per ANSI C78.377. Also available in Phosor Converter Amber with Peak Intensity at 610nm.
- Minimum CRI of 90.

**Electrical**

- High-performance programmable driver

**Features over-voltage, under-voltage, short-circuit and over-temperature protection.** Custom lumen and wattage packages available.

- 0-10V dimming (10% - 100%) standard.
- Standard Universal Voltage (220-277 Vac) Input, 50/60 Hz or optional High Voltage (347-480 Vac).
- L90 Calculated Life >100K Hours
- Total harmonic distortion <20%
- Operating temperature: -40°C to +50°C (-40°F to +122°F).
- Power factor >.90
- Input power stays constant over life.
- Optional 10kV surge protection device meets a minimum Category C Low operation (per ANSI/IEEE C62.41.2).
- Components are fully enclosed in potting material for moisture resistance. Driver complies with FCC standards. Driver and key electronic components can easily be accessed via hinged door.
- Optional integral emergency battery pack provides 90-minute of constant power to the LED system, ensuring code compliance. A test switch/indicator button is installed on the housing for ease of maintenance. The fixture delivers 1500 lumens during emergency mode.

**Controls**

- Integral passive infrared Bluetooth™ motion and photoelectric sensor options. Fixtures operate independently and can be commissioned via an iOS or Android configuration app. Updates and modifications to the control strategy are easily implemented via an intuitive app.
- LSi's AirLink™ blue lighting control system is a simple feature rich wireless Bluetooth mesh network. The integrated fixture sensor module provides wireless control of grouped fixtures based on motion sensors, daylight or a fully customizable schedule.

**Installation**

- Universal wall mounting plate easily mounts directly to 4" octagonal or square junction box.
- 2 fasteners secure the hinged door underneath the housing and provide quick & easy access to the electrical compartment for installing/servicing.
- Optional terminal block accepts up to 12 ga wire.

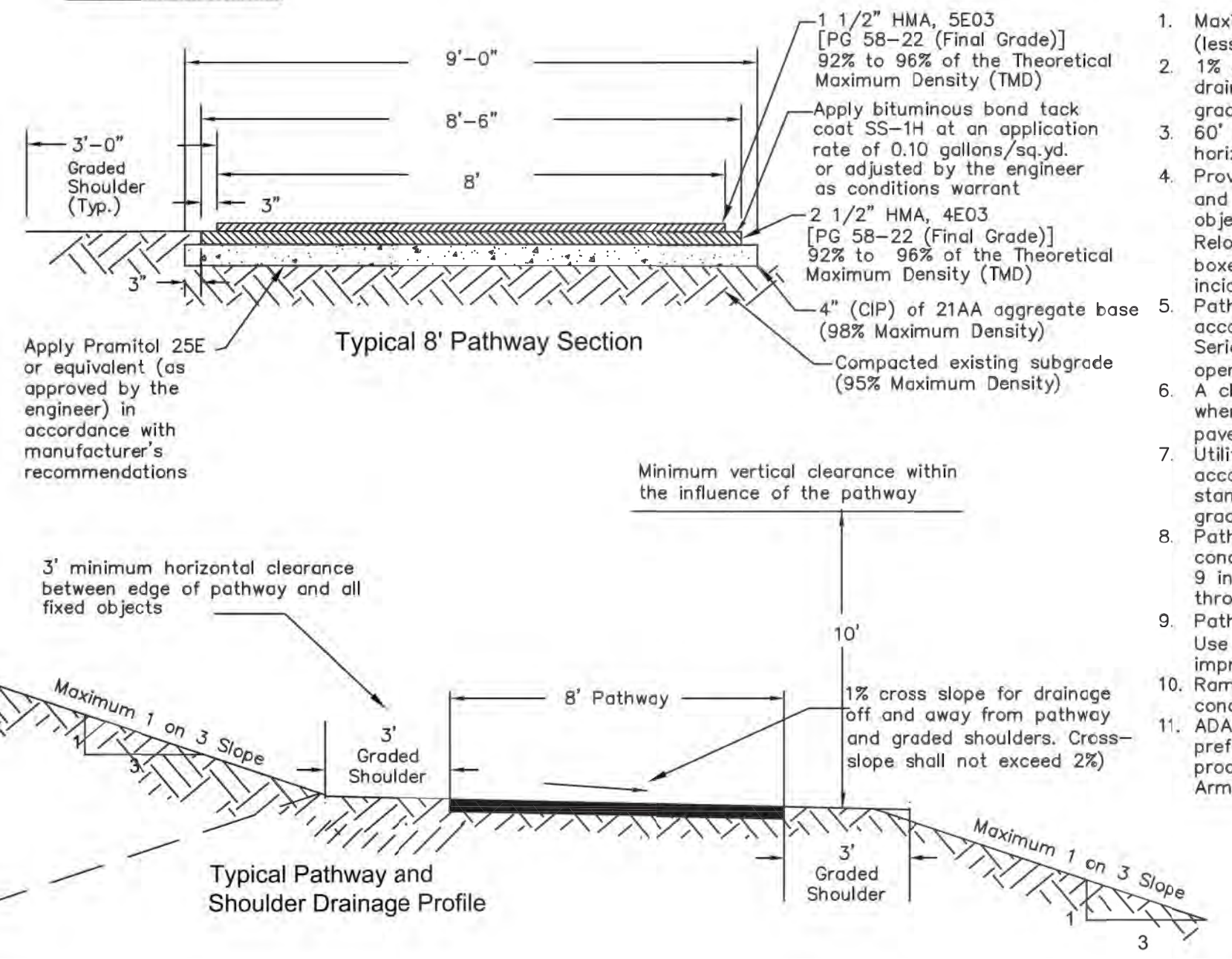
**Warranty**

- LSi LED Fixtures carry a 5-year warranty.
- 1 Year warranty on Battery Back-up option.

**Listings**

- Listed to UL 1598 and UL 8750
- Meets RoHS, American Act requirements.
- IDA compliant, with 3000K or lower color temperature selection.
- Title 24 Compliant: see local ordinance for qualification information.
- Suitable for wet locations.
- IP65 rated luminaire per IEC 60598.
- 30 tested for ANSI C136.31 high vibration applications when pole mounted (using optional XPM bracket) or wall mounted.
- IK08 rated luminaire per IEC 60529 mechanical impact code.
- DesignLights Consortium™ (DLC) qualified product. Not all versions of this product may be DLC qualified. Please check the DLC Qualified Products List at [www.designlightsconsortium.com](http://www.designlightsconsortium.com) to confirm which versions are qualified.

**Standard Details:**



**Standard Notes:**

- Maximum grade of 8.33% along pathway (less than 5% is recommended).
- 1% cross slope (i.e. super elevation) for drainage off and away from pathway and graded shoulders (2% maximum cross-slope).
- 60' minimum center line radii for pathway horizontal alignment.
- 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.
- Pathway ramps shall be constructed in accordance with MDOT standard detail R-28 Series and shall have a minimum clear opening of 8' wide.
- A clean saw cut joint shall be provided wherever new pavement matches existing pavement (incidental work item).
- Utility structures shall be adjusted in accordance with the City of Rochester Hills standards and shall match the proposed grade of the pathway.
- 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.
- Pathway asphalt shall be paid for as "Shared Use Path, HMA" when part of public improvement project.
- Ramps and landings shall be 6 inch thick concrete.
- ADA detectable warning plates shall be preformed and brick red in color. Acceptable products include ADA Solutions, Inc., Armor-Tile, etc. or approved equal.

**LIGHT FIXTURES 'E & F' SPECIFICATIONS**

NOT TO SCALE

**CITY OF ROCHESTER HILLS PATHWAY CONSTRUCTION DETAILS**

NOT TO SCALE

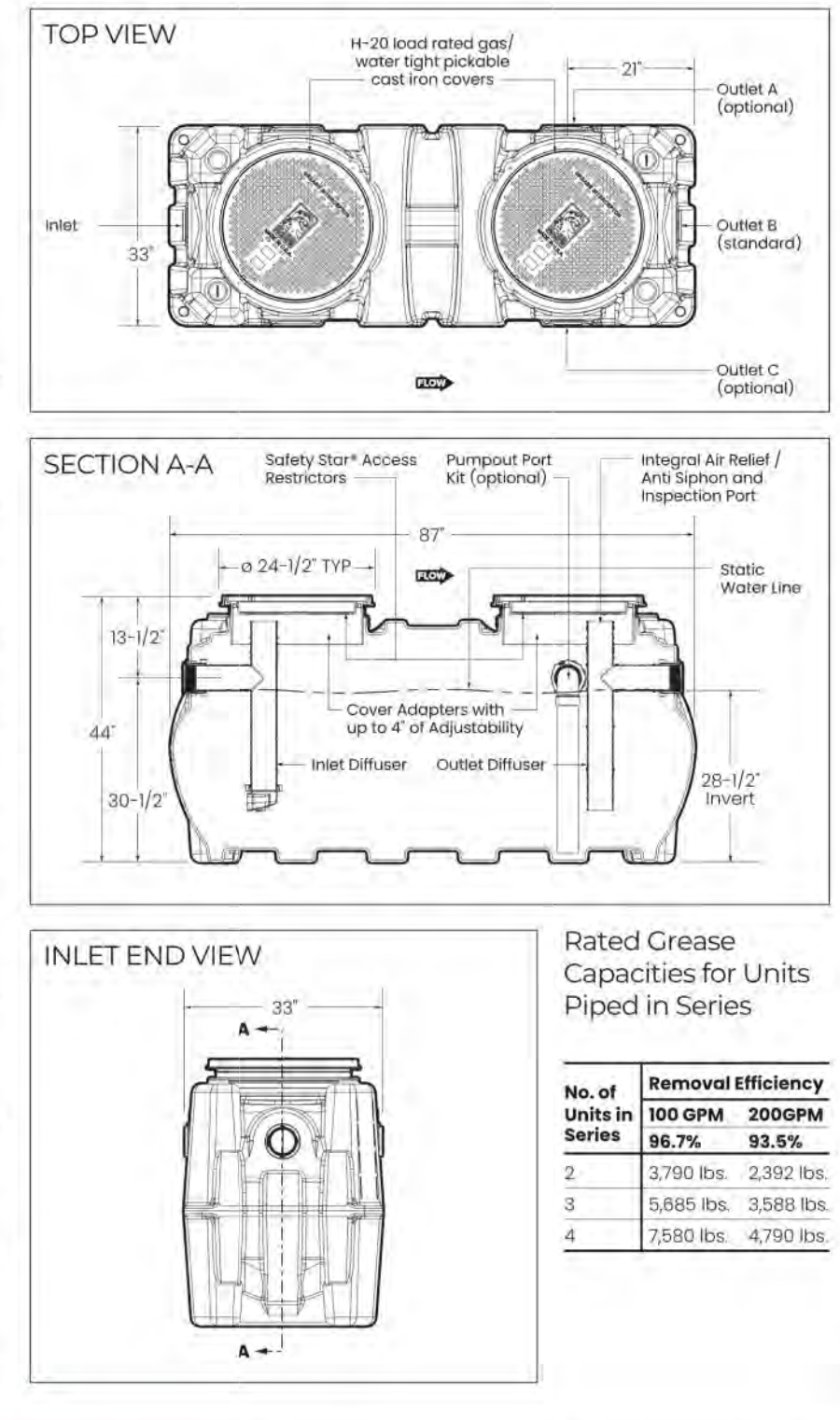
**SCHIER** MODEL NUMBER: **GB-250** DESCRIPTION: 100/200 GPM Polyethylene Grease Interceptor

PART #: 4055-DG-02 DWG BY: B. Korer DATE: 8/28/2020 REV: \_\_\_\_\_ I:CO

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**GB-250 GREASE INTERCEPTOR DETAIL**

NOT TO SCALE



REVISION	DATE	DESCRIPTION
1	07/08/2021	JRC
2	08/02/2021	ECM
3	08/20/2021	RAC
4	09/08/2021	RAC / ECM
5	12/28/2021	JRC / ECM
6	02/09/2022	JRC / ECM

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**STARBUCKS**

**1360 WALTON BLVD**  
PROPOSED STARBUCKS

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

**STATE OF MICHIGAN**  
JONATHAN M. COONEY  
REGISTERED PROFESSIONAL ENGINEER  
No. 24817

**STONEFIELD**  
engineering & design

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

TITLE: **CONSTRUCTION DETAILS**

DRAWING: **C-14**