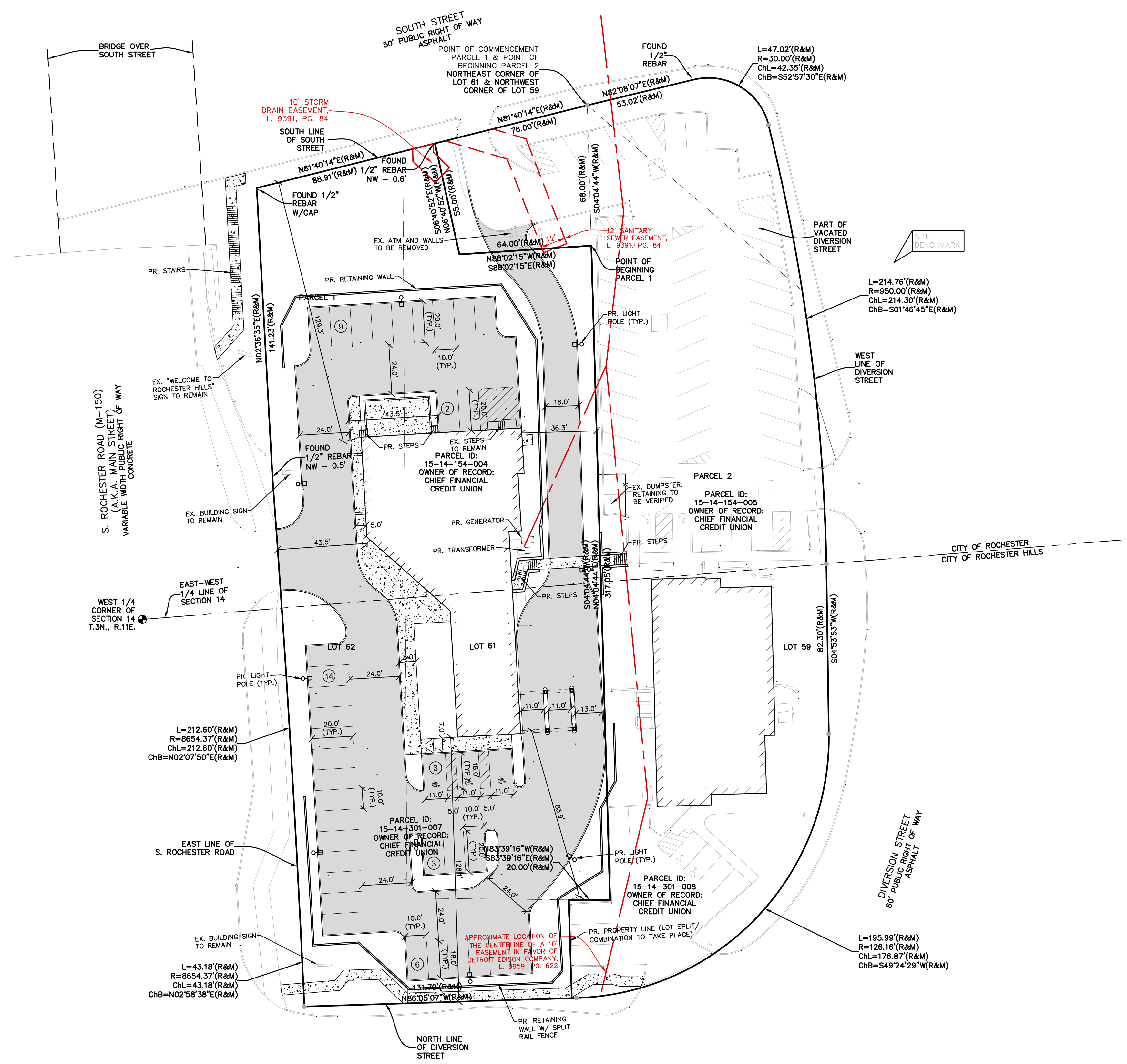


**50**  
NF  
ENGINEERS  
1969 - 2019

**NOWAK & FRAUS  
ENGINEERS**

CIVIL ENGINEERS  
LAND SURVEYORS  
LAND PLANNERS

NOWAK & FRAUS ENGINEERS  
46777 WOODWARD AVE.  
PONTIAC, MI 48342-5032  
TEL. (248) 332-7931  
FAX. (248) 332-8257  
WWW.NOWAKFRAUS.COM



**SITE DATA**

ZONED: B-1 (GENERAL BUSINESS)  
 EXISTING SITE AREA: 53,799 S.F. OR 1.24 ACRES  
 PROPOSED SITE AREA: 59,210 S.F. OR 1.36 ACRES

SETBACKS	REQUIRED	PROVIDED
FRONT (SOUTH):	15'	83.9'
FRONT (WEST):	15'	43.5'
FRONT (NORTH):	15'	129.3'
SIDE (EAST):	10'	36.3'

EXISTING BUILDING AREA:  
OFFICE: 7,425 S.F.

PARKING REQUIRED:  
OFFICE: 1 SPACE PER 250 S.F. FLOOR AREA  
7,425 S.F. / 250 S.F. = 30 SPACES

PARKING PROVIDED: 37 SPACES  
INCLUDING 3 BARRIER-FREE SPACES (3 VAN ACCESSIBLE)

EXISTING PAVEMENT SURFACE: 22,296 S.F. OR 41.4%  
 PROPOSED PAVEMENT SURFACE: 19,120 S.F. OR 32.2%

**DUMPSTER NOTE**

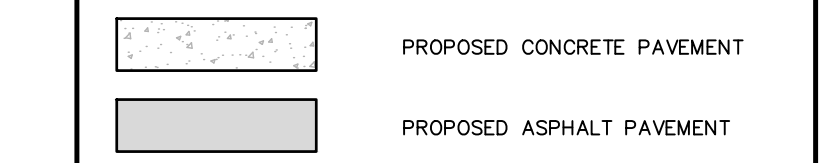
EXISTING DUMPSTER TO BE USED FOR BOTH PROPERTIES.

**COVID-19 PANDEMIC CONDITION**

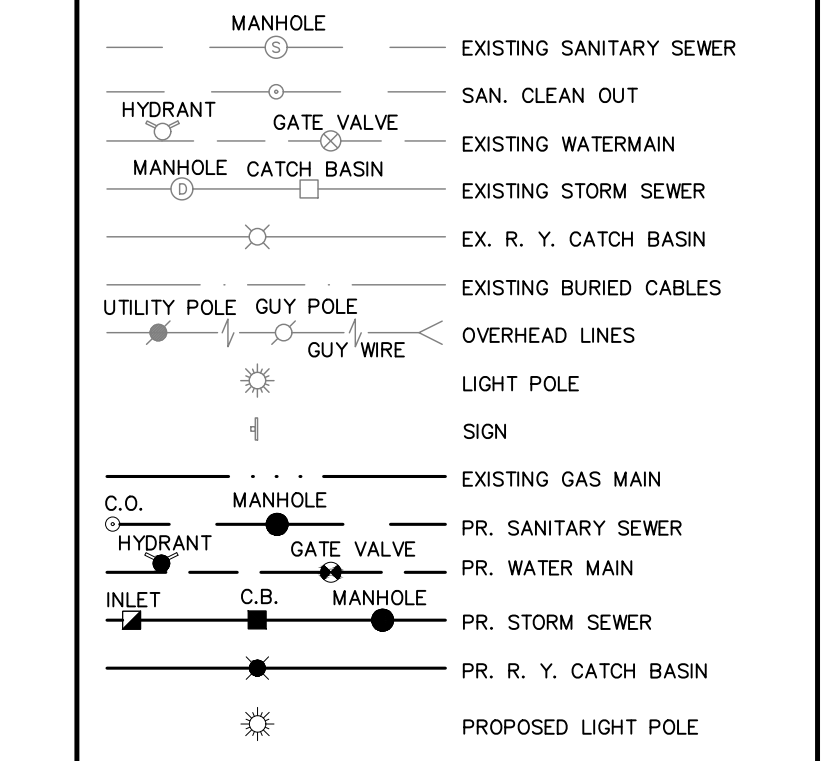
DUE TO THE UNPRECEDENTED COVID-19 PANDEMIC CONDITION AND RESTRICTIONS THE STANDARD DATA WHICH IS OBTAINED FROM MISS DIG / CALL 811 HAS BEEN RESTRICTED TO CRITICAL INFRASTRUCTURE ONLY. NFE WILL MAKE EVERY EFFORT TO OBTAIN CURRENT REFERENCE DATA FROM THE GOVERNING AGENCIES. HOWEVER, THIS DATA MAY BE PARTIAL OR INCOMPLETE. NFE WILL ISSUE THIS SURVEY WITH THE BEST AVAILABLE INFORMATION FROM OUR FIELD SURVEY AND OTHER AVAILABLE REFERENCE DATA. NFE WILL NOT BE RESPONSIBLE FOR INCOMPLETE OR PARTIAL DATA PROVIDED BY THIRD PARTY FACILITY OWNERS. NFE IS NOT RESPONSIBLE FOR BURIED UTILITIES FOR WHICH PLANS WERE NOT FURNISHED OR CANNOT BE OBSERVED IN THE FIELD.

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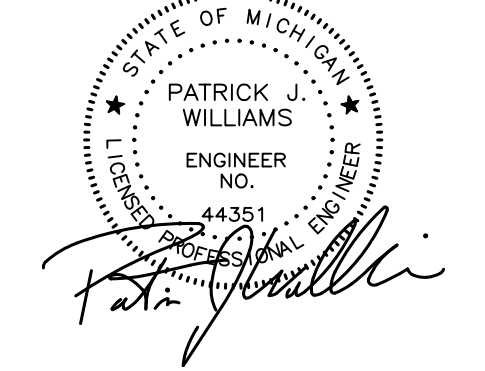
**PAVING LEGEND**



**LEGEND**



SEAL



PROJECT  
 Chief Financial Credit Union  
 515 S. Rochester Rd.

CLIENT  
 CBI Design Professionals  
 838 W. Long Lake Rd  
 Suite 110  
 Bloomfield Hills, MI 48302

Contact: Amanda Fox  
 Ph: (248) 645-2605

PROJECT LOCATION  
 Part of the Northwest 1/4 of Section 14  
 T. 3 North, R. 11 East  
 City of Rochester and City of Rochester Hills,  
 Oakland County, Michigan

SHEET  
 Dimensional Site Plan



DATE ISSUED/REVISED  
 00-00-00 REVISED PER

DRAWN BY:  
 A. Eizember

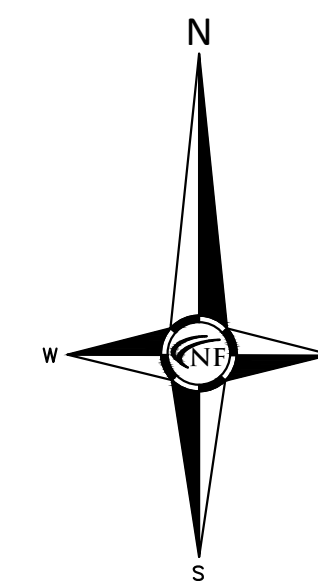
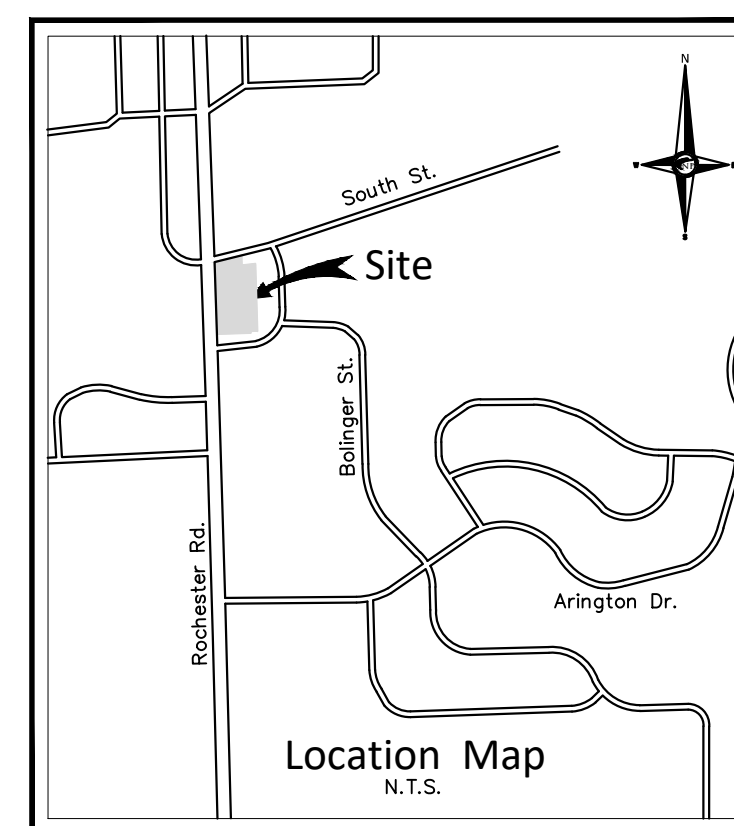
DESIGNED BY:  
 A. Eizember

APPROVED BY:  
 P. Williams

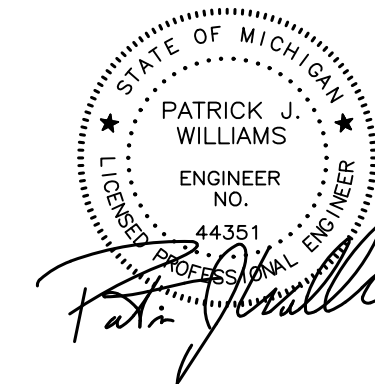
DATE:  
 August 31, 2020

SCALE: 1" = 30'

NFE JOB NO. SHEET NO.  
**L880 SP-2**



SEAL



PROJECT

Chief Financial Credit  
Union  
515 S. Rochester Rd.

CLIENT

CBI Design Professionals  
838 W. Long Lake Rd  
Suite 110  
Bloomfield Hills, MI 48302

Contact: Amanda Fox  
Ph: (248) 645-2605

PROJECT LOCATION

Part of the Northwest 1/4  
of Section 14  
T. 3 North, R. 11 East  
City of Rochester and City of  
Oakland County, Michigan

SHEET

Engineering Site Plan



Know what's below  
Call before you dig.

DATE ISSUED/REVISED

00-00-00 REVISED PER

DRAWN BY:

A. Eizember

DESIGNED BY:

A. Eizember

APPROVED BY:

P. Williams

DATE:

August 31, 2020

SCALE: 1" = 30'

30 15 0 15 30 45

NFE JOB NO. SHEET NO.

L880 SP-3

**GENERAL PAVING NOTES**

PAVEMENT SHALL BE OF THE TYPE, THICKNESS AND CROSS SECTION AS INDICATED ON THE PLANS AND AS FOLLOWS:

CONCRETE: PORTLAND CEMENT TYPE IA (AIR-ENTRAINED) WITH A MINIMUM CEMENT CONTENT OF SIX SACKS PER CUBIC YARD, MINIMUM 28 DAY COMPRESSIVE STRENGTH OF 3,500 PSI AND A SLUMP OF 1 1/2 TO 3 INCHES.

ASPHALT: BASE COURSE - MDT BITUMINOUS MIXTURE NO. 1100L, 20A; SURFACE COURSE - MDT BITUMINOUS MIXTURE NO. 1100T, 20A; ASPHALT CEMENT PENETRATION GRADE 85-100, BOND COAT - MDT SS-1H EMULSION AT 0.10 GALLON PER SQUARE YARD, MAXIMUM 2 INCH LIFT.

PAVEMENT BASE SHALL BE COMPACTED TO 98% OF THE MAXIMUM DENSITY (MODIFIED PROCTOR) PRIOR TO PLACEMENT OF PROPOSED PAVEMENT. EXISTING SUB-BASE SHALL BE PROOF-ROLLED IN THE PRESENCE OF THE ENGINEER TO DETERMINE STABILITY.

ALL CONCRETE PAVEMENT, DRIVEWAYS, CURB & GUTTER, ETC., SHALL BE SPRAY CURED WITH WHITE MEMBRANE CURING COMPOUND IMMEDIATELY FOLLOWING FINISHING OPERATION.

ALL CONCRETE PAVEMENT JOINTS SHALL BE FILLED WITH HOT POURED RUBBERIZED ASPHALT JOINT SEALING COMPOUND IMMEDIATELY AFTER SAWCUT OPERATION. FEDERAL SPECIFICATION SS-5164.

ALL WORKMANSHIP AND MATERIALS SHALL BE IN ACCORDANCE WITH THE CURRENT STANDARDS AND SPECIFICATIONS OF THE MUNICIPALITY AND THE MICHIGAN DEPARTMENT OF TRANSPORTATION STANDARD SPECIFICATIONS FOR CONSTRUCTION, CURRENT EDITION.

ALL TOP OF CURB ELEVATIONS, AS SHOWN ON THE PLANS, ARE CALCULATED FOR A 6" CONCRETE CURB UNLESS OTHERWISE NOTED.

ALL SIDEWALK RAMPS, CONFORMING TO PUBLIC ACT NO. 8, 1993, SHALL BE INSTALLED AS INDICATED ON THE PLANS.

CONSTRUCTION OF A NEW OR RECONSTRUCTED DRIVE APPROACH CONNECTING TO AN EXISTING STATE OR COUNTY ROADWAY SHALL BE ALLOWED ONLY AFTER AN APPROVED PERMIT HAS BEEN SECURED FROM THE AGENCY HAVING JURISDICTION OVER SAID ROADWAY. FOR ANY WORK WITHIN THE PUBLIC RIGHT-OF-WAY, THE CONTRACTOR SHALL PAY FOR AND SECURE ALL NECESSARY PERMITS AND LIKEWISE ARRANGE FOR ALL INSPECTION.

EXISTING TOPSOIL, VEGETATION AND ORGANIC MATERIALS SHALL BE STRIPPED AND REMOVED FROM PROPOSED PAVEMENT AREA PRIOR TO PLACEMENT OF BASE MATERIALS.

EXPANSION JOINTS SHOULD BE INSTALLED AT THE END OF ALL INTERSECTION RADII.

SIDEWALK RAMPS, CONFORMING TO PUBLIC ACT NO. 8, 1973, SHALL BE INSTALLED AS INDICATED ON THE PLANS.

ALL PAVEMENT AREAS SHALL BE PROOF-ROLLED UNDER THE SUPERVISION OF A GEOTECHNICAL ENGINEER PRIOR TO THE PLACEMENT OF BASE MATERIALS AND PAVING MATERIALS.

FILL AREAS SHALL BE MACHINE COMPACTED IN UNIFORM LIFTS NOT EXCEEDING 9 INCHES THICK TO 98% OF THE MAXIMUM DENSITY (MODIFIED PROCTOR) PRIOR TO PLACEMENT OF PROPOSED PAVEMENT.

**COVID-19 PANDEMIC CONDITION**

DUE TO THE UNPRECEDENTED COVID-19 PANDEMIC CONDITION AND RESTRICTIONS THE STANDARD DATA WHICH IS OBTAINED FROM MISS DIG / CALL 811 HAS BEEN RESTRICTED TO CRITICAL INFRASTRUCTURE ONLY. NFE WILL MAKE EVERY EFFORT TO OBTAIN CURRENT REFERENCE DATA FROM THE GOVERNING AGENCIES HOWEVER, THIS DATA MAY BE PARTIAL OR INCOMPLETE. NFE WILL ISSUE THIS SURVEY WITH THE BEST AVAILABLE INFORMATION FROM OUR FIELD SURVEY AND OTHER AVAILABLE REFERENCE DATA. NFE WILL NOT BE RESPONSIBLE FOR INCOMPLETE OR PARTIAL DATA PROVIDED BY THIRD PARTY FACILITY OWNERS. NFE IS NOT RESPONSIBLE FOR BURIED UTILITIES FOR WHICH PLANS WERE NOT FURNISHED OR CANNOT BE OBSERVED IN THE FIELD.

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**PAVING LEGEND**

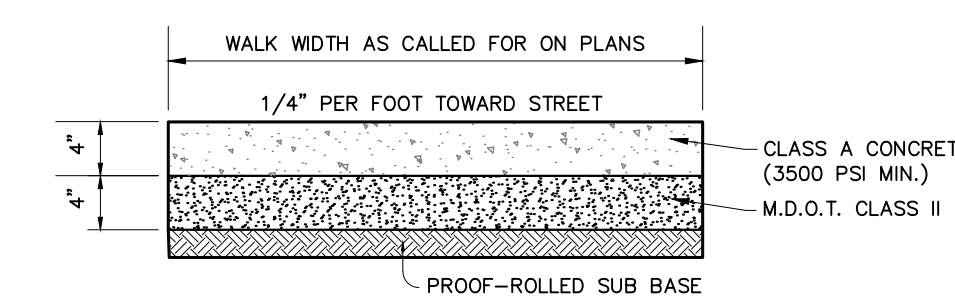
	PROPOSED CONCRETE PAVEMENT
	PROPOSED ASPHALT PAVEMENT

**LEGEND**

	EXISTING SANITARY SEWER
	SAN. CLEAN OUT
	EXISTING WATERMAIN
	EXISTING STORM SEWER
	EX. R. Y. CATCH BASIN
	EXISTING BURIED CABLES
	OVERHEAD LINES
	LIGHT POLE
	SIGN
	EXISTING GAS MAIN
	PR. SANITARY SEWER
	PR. WATER MAIN
	PR. STORM SEWER
	PR. R. Y. CATCH BASIN
	PROPOSED LIGHT POLE

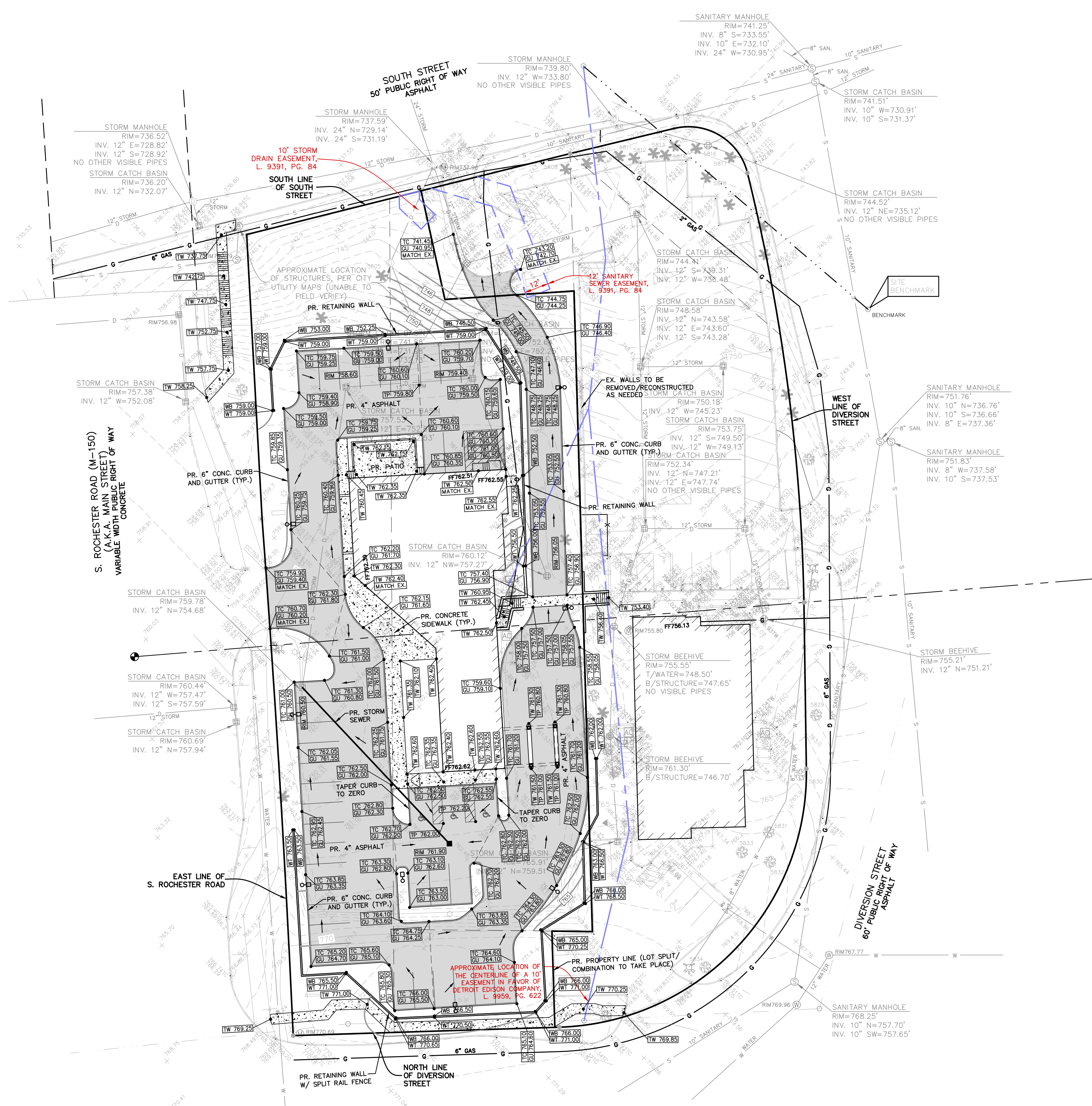
**PAVING DETAILS NOTE**

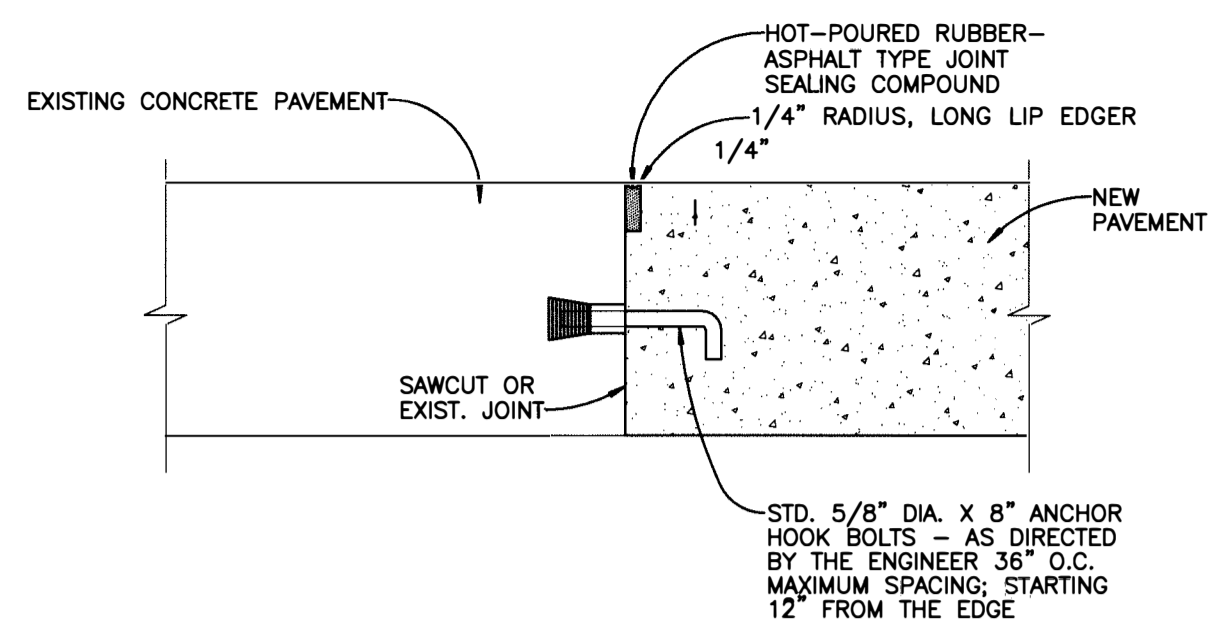
REFER TO CITY OF ROCHESTER PAVING DETAILS FOR ADDITIONAL PAVING CROSS-SECTIONS.



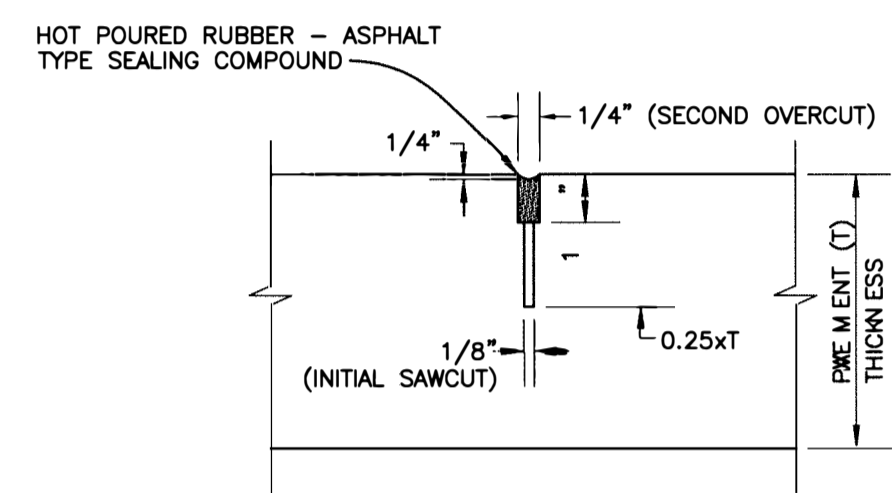
CONCRETE SIDEWALK SECTION

N.T.S.

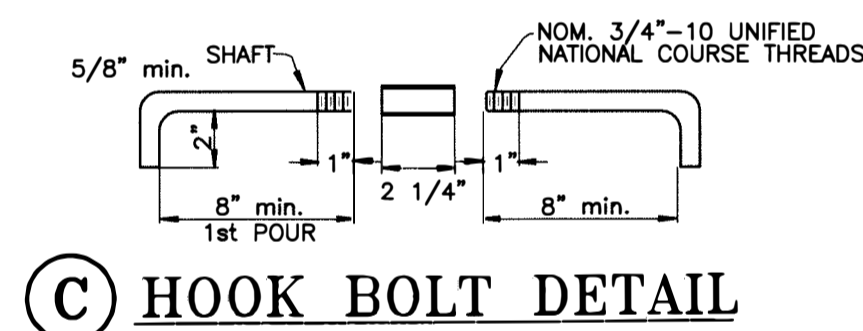




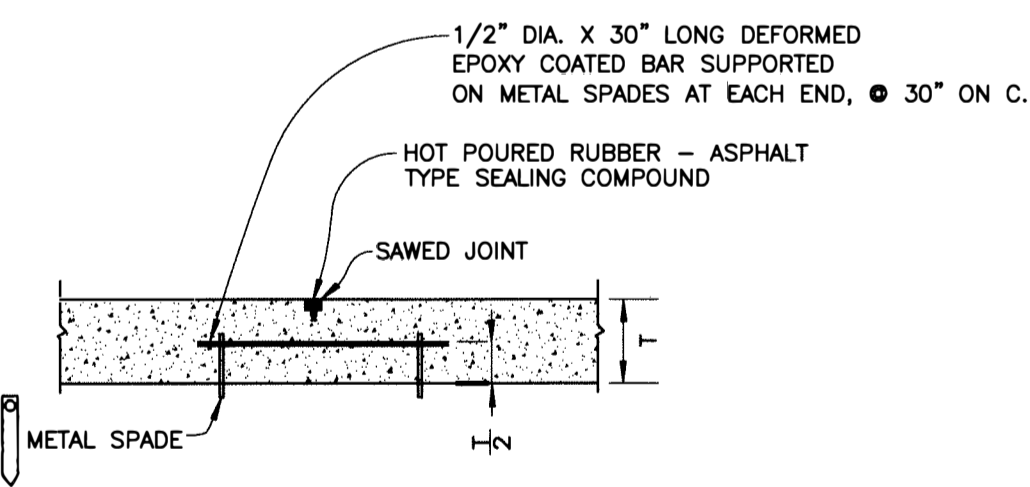
**A CONSTRUCTION JOINTS**



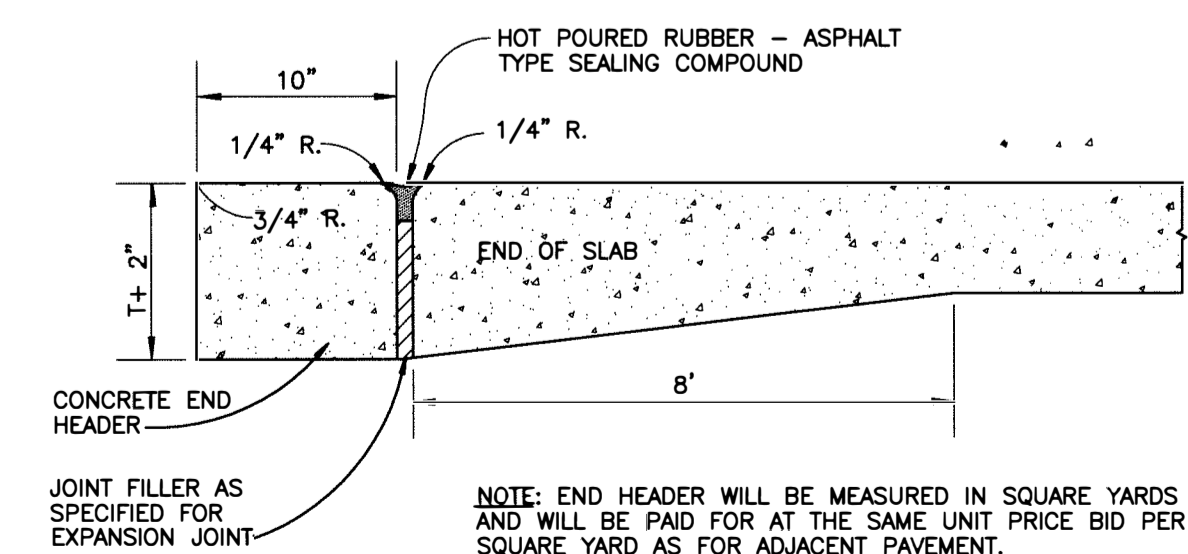
**B TRANSVERSE/LONGITUDINAL PLANE OF WEAKNESS JOINT**



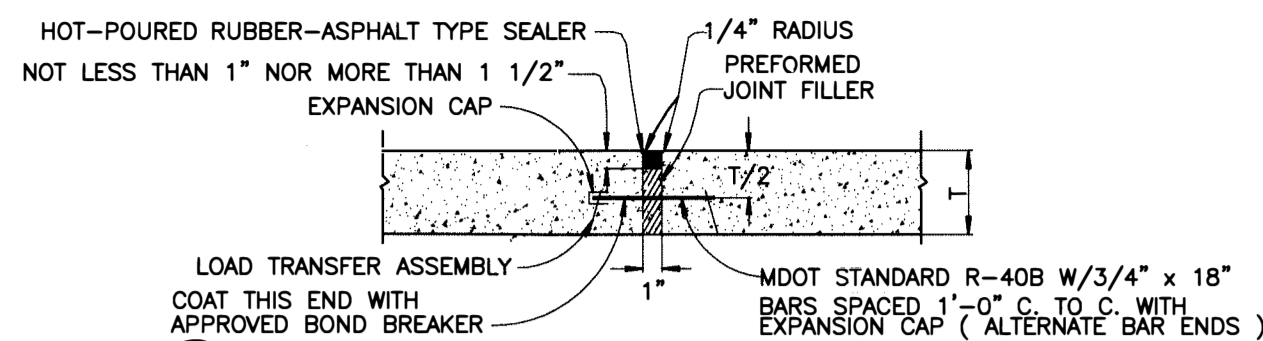
**C HOOK BOLT DETAIL**



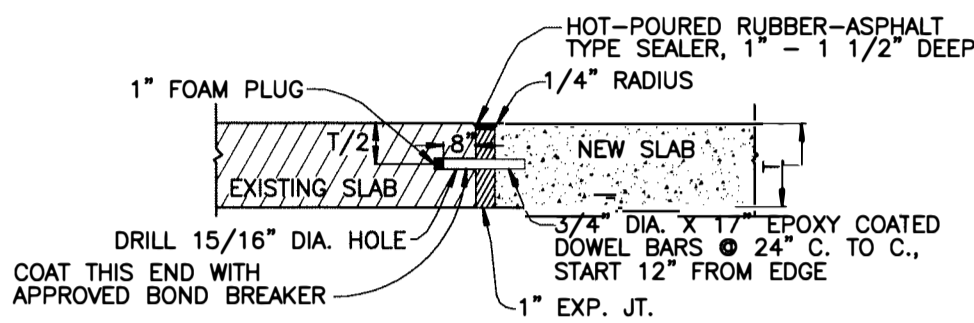
**D TIEBAR DETAIL**



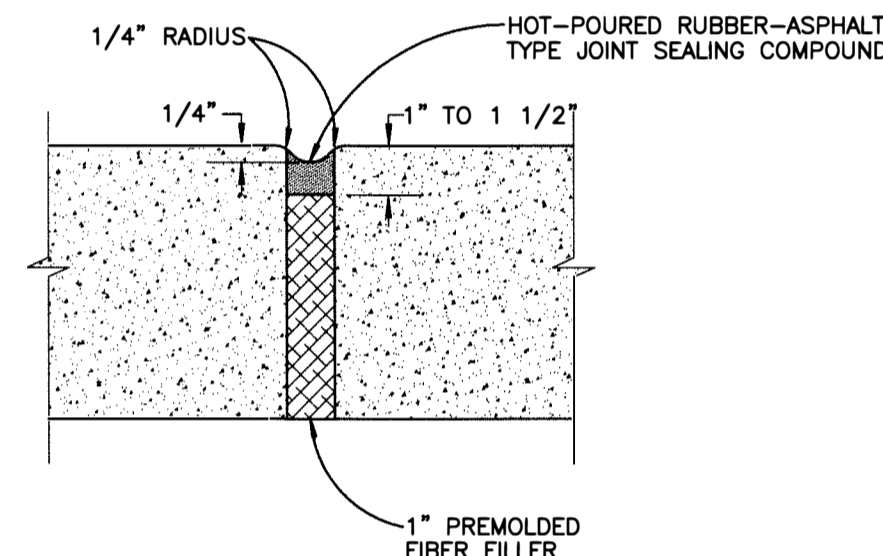
**END HEADER**



**1 LOAD TRANSFER ASSEMBLY WITH PREFORMED EXPANSION JOINT FILLER**



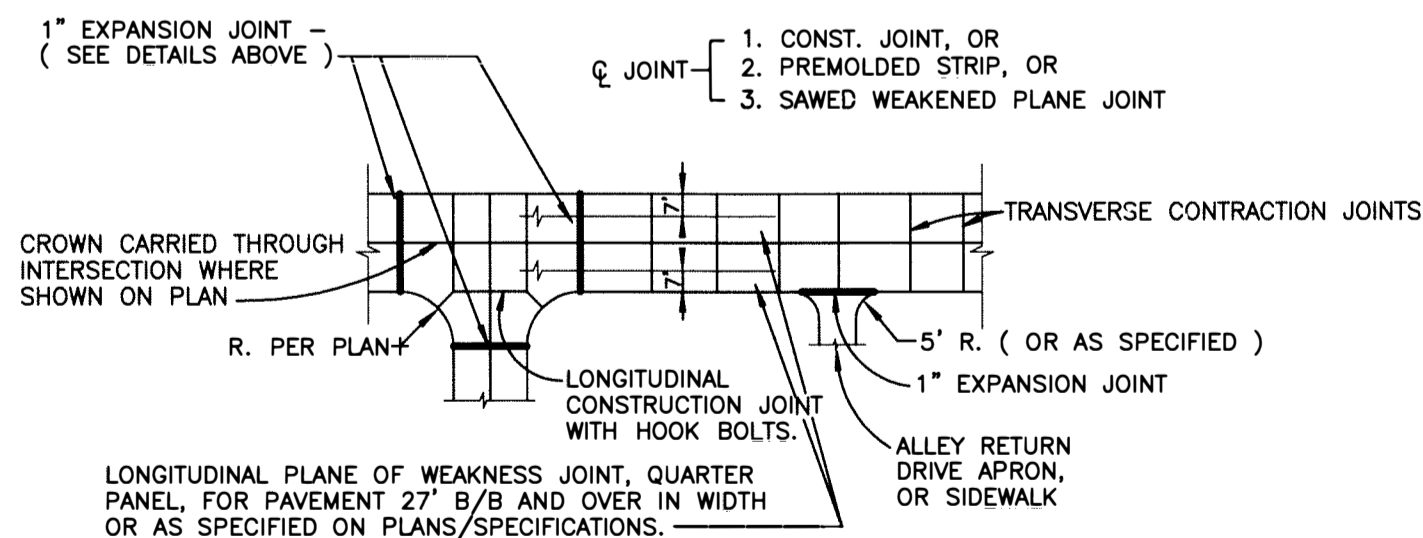
**2 EXPANSION JOINT WITH 3/4" DOWELS**



**3 EXPANSION JOINT**

**4 EXPANSION JOINT SPACING**

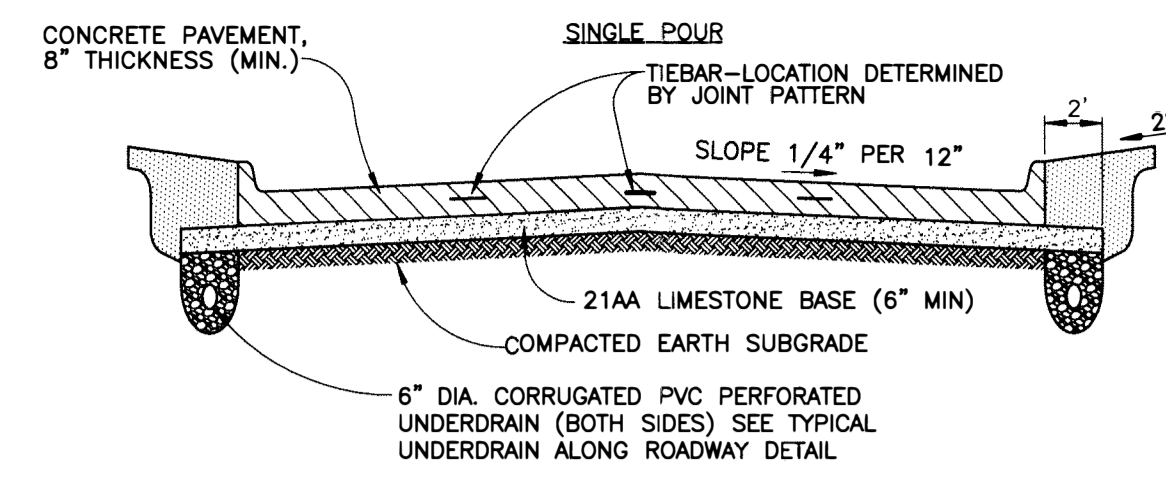
**DAYTIME TEMPERATURES 50°F AND ABOVE:**  
 AT ALL INTERSECTIONS; MAXIMUM SPACING 700 FEET; AS SHOWN ON PLANS.  
**DAYTIME TEMPERATURES BELOW 50°F:**  
 AT ALL INTERSECTIONS; MAXIMUM SPACING 450 FEET; AS SHOWN ON PLANS.



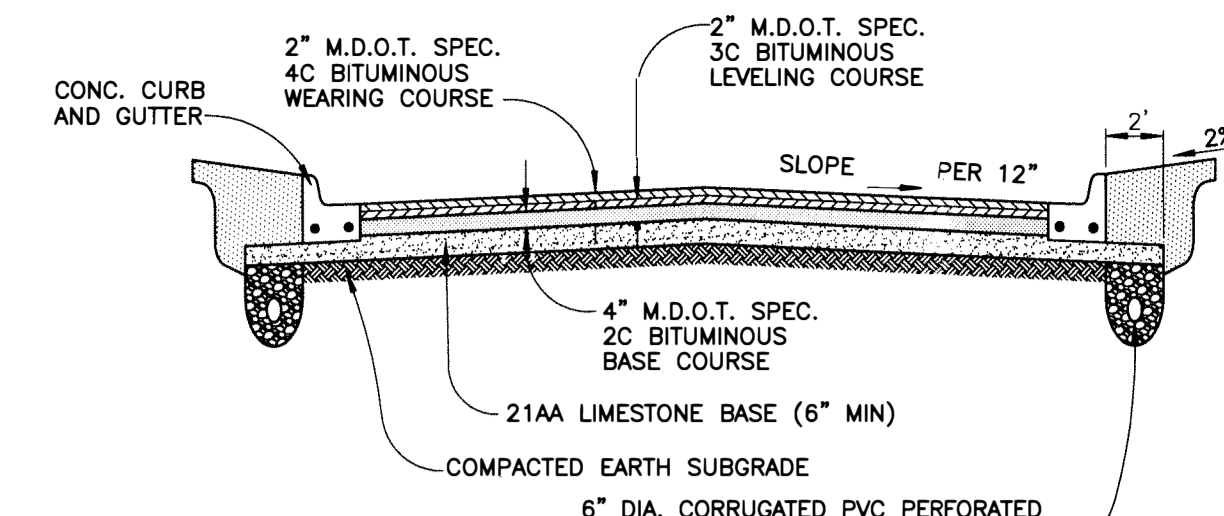
TRANSVERSE CONTRACTION JOINT SPACING	JOINT SPACING
28' B/B	10.5'
30' B/B	10.5'
32' B/B	12.5'

**NOTE:** EVERY 5TH TRANSVERSE JOINT SHALL BE FORMED WITH 1/4" x 2 1/4" PREFORMED BITUMINOUS JOINT MATERIAL PLACED AT THE TIME CONCRETE IS POURED. INTERMEDIATE TRANSVERSE JOINTS SHALL BE SAWED.

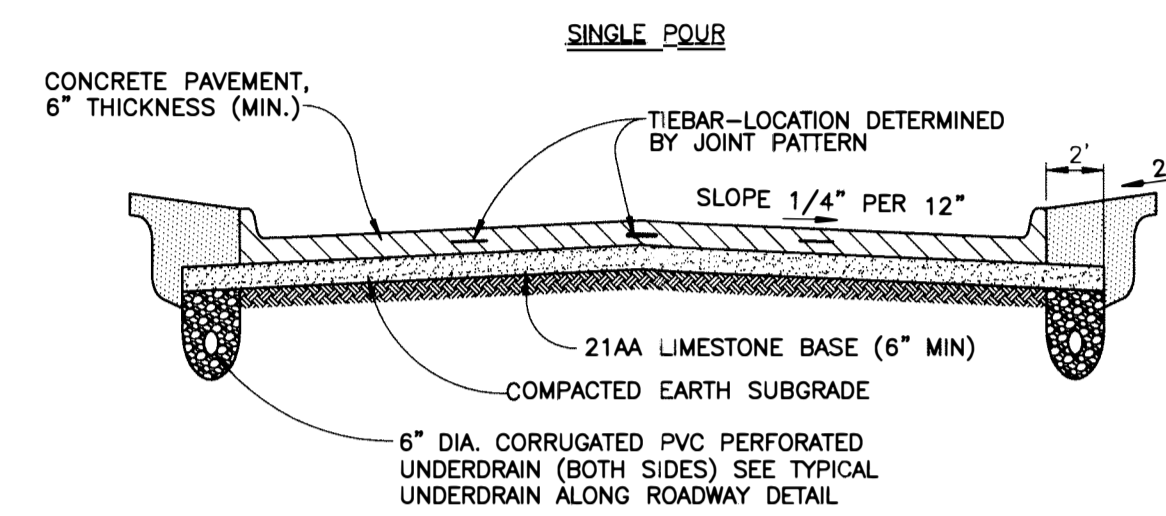
**5 JOINTING DETAILS**



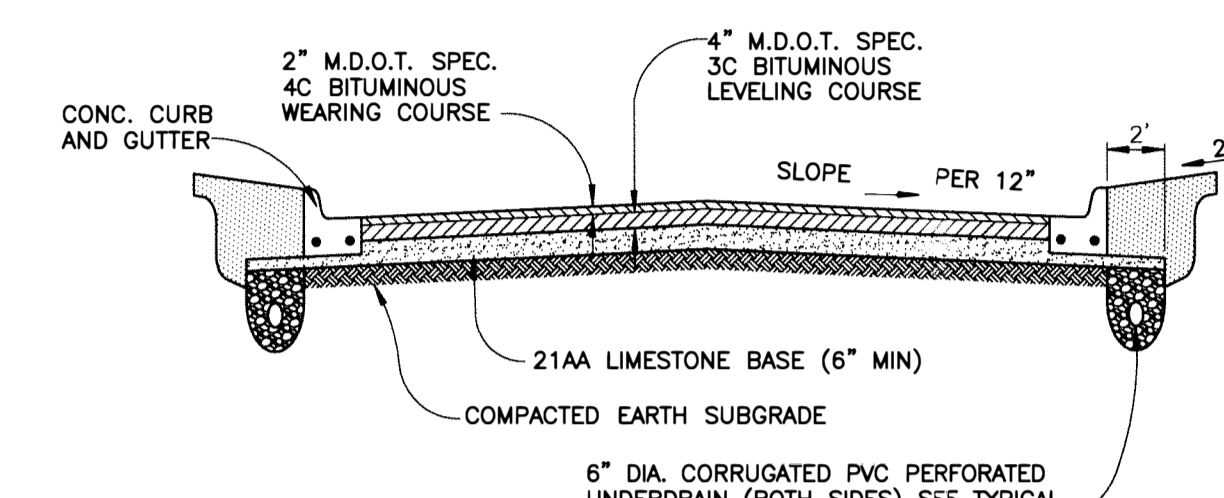
**CONCRETE PAVEMENT**  
 HEAVY INDUSTRIAL, LIGHT INDUSTRIAL & COMMERCIAL/OFFICE MANEUVERING LANE - TRUCK TRAFFIC



**BITUMINOUS PAVEMENT**  
 HEAVY INDUSTRIAL, LIGHT INDUSTRIAL & COMMERCIAL/OFFICE MANEUVERING LANE - TRUCK TRAFFIC



**CONCRETE PAVEMENT**  
 COMMERCIAL AND OFFICE PARKING AREAS

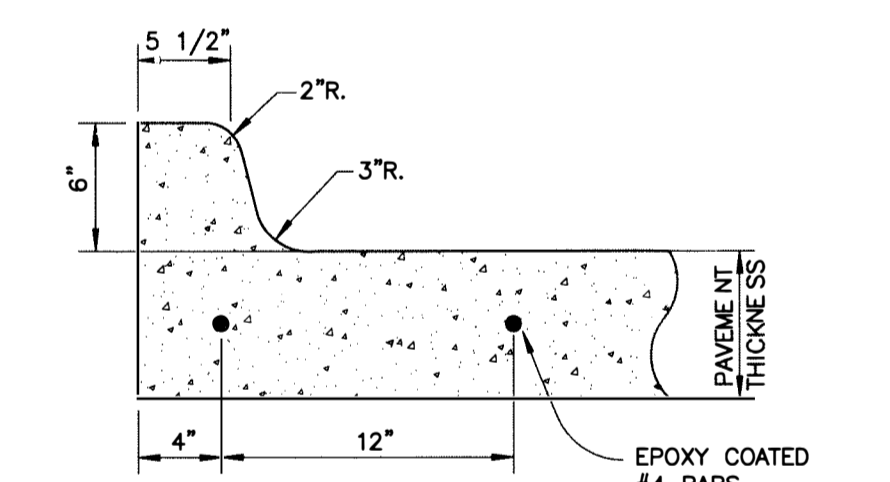


**BITUMINOUS PAVEMENT**  
 COMMERCIAL AND OFFICE PARKING AREAS

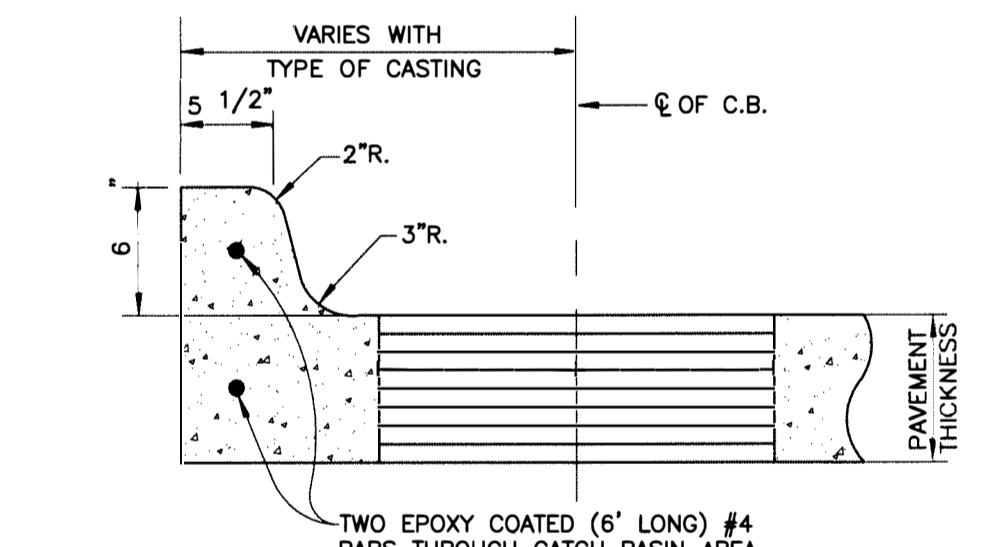
**TYPICAL PAVEMENT SECTIONS**

PAVEMENT CLASSIFICATION	MINIMUM CONCRETE PAVEMENT THICKNESS - ( INCHES )	MINIMUM BITUMINOUS PAVEMENT THICKNESS - ( INCHES )	MINIMUM SUBBASE FOR CONCRETE AND BITUMINOUS PAVEMENT THICKNESS - ( INCHES )
HEAVY INDUSTRIAL	8	8	6
LIGHT INDUSTRIAL	8	8	6
COMMERCIAL AND OFFICE PARKING AREAS ONLY	8	8	6
MULTIPLE FAMILY RESIDENTIAL DRIVING LANE	8	**	**

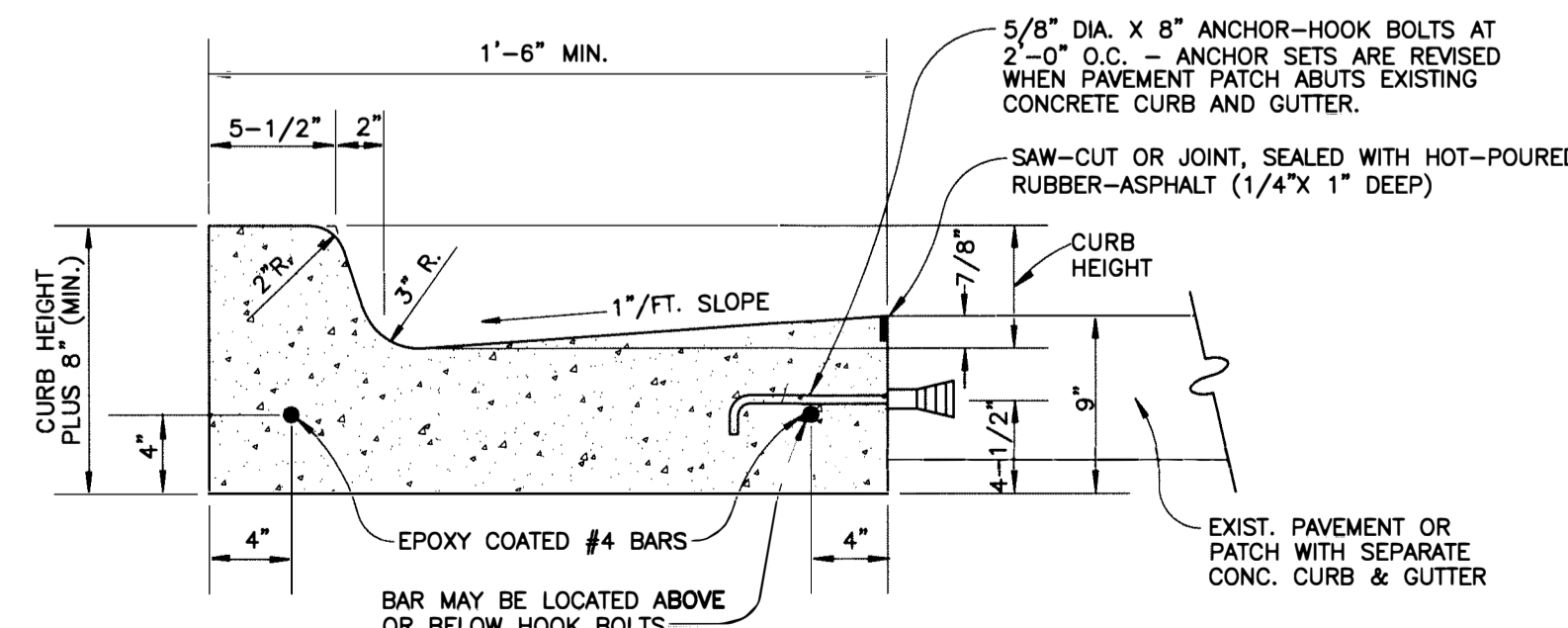
\*\* ALTERNATE PAVEMENT DESIGNS WILL BE CONSIDERED WHEN PROPOSED SECTION PROVIDES THE SAME STRUCTURAL NUMBER, LIFE EXPECTANCY AND IS SIGNED AND SEALED BY A LICENSED PROFESSIONAL ENGINEER AND IS ACCOMPANIED BY DESIGN CALCULATIONS AND SOIL BORINGS.



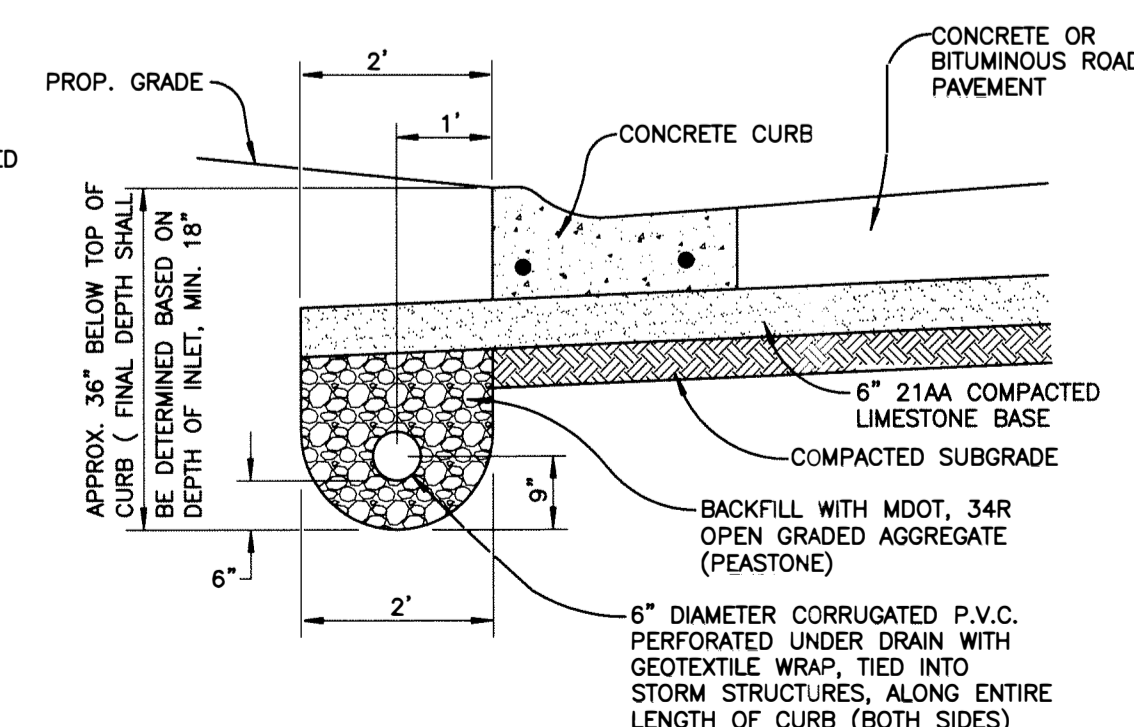
**6" CURB DETAIL INTEGRAL WITH CONCRETE PAVEMENT ( TYPICAL )**



**6" CURB DETAIL INTEGRAL WITH CONCRETE PAVEMENT ( AT STRUCTURE )**



**TYPICAL CONCRETE CURB AND GUTTER DETAIL**



**TYPICAL UNDERDRAIN ALONG ROADWAY**

Anderson, Eckstein and Westrick, Inc.  
 51301 Schoenherr Road  
 Shelby Township  
 Michigan 48315  
 Phone 586 726 1234  
 Fax 586 726 8780  
 www.aewinc.com



DATE	SUBMITTALS/REVISIONS

DRAWN BY:	CHECKED BY:	DATE:
MJS	AAP	FEBRUARY 2012

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 Made:--2/8/2013 4:17:25 PM

DEPARTMENT OF PUBLIC WORKS  
 APPROVED BY: *William Bohlen*  
 WILLIAM BOHLEN, DIRECTOR  
 DATE: 2-7-13

CITY OF ROCHESTER  
 STANDARD PAVING DETAILS  
 (1 OF 2)

SHEET NO.

CITY OF ROCHESTER  
 STANDARD PAVING DETAILS  
 (1 OF 2)

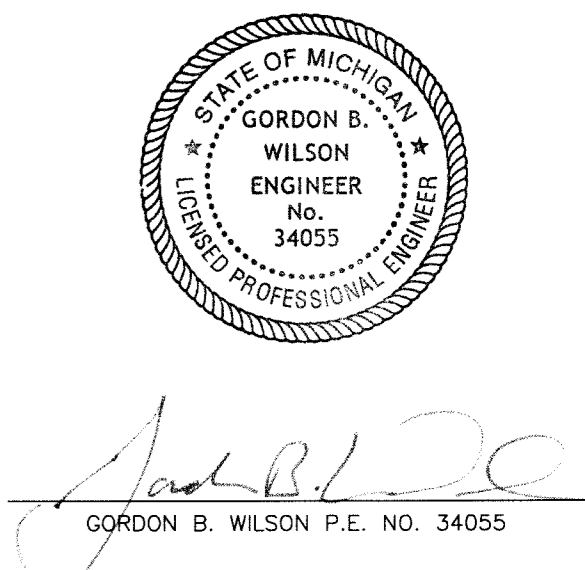
PAV1



DATE	SUBMITTALS/REVISIONS

DRAWN BY:	CHECKED BY:	DATE:
MJS	AAP	FEBRUARY 2012

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**DEPARTMENT OF  
PUBLIC WORKS**

APPROVED BY: *William Bohlen*  
WILLIAM BOHLEN, DIRECTOR

DATE: 2-7-13

**CITY OF  
ROCHESTER**

**STANDARD  
PAVING DETAILS  
(2 OF 2)**

SHEET NO. **PAV2**

Copyright, 2012, Anderson, Eckstein and Westrick, Inc.

**REQUIREMENTS AND CONDITIONS  
FOR CONCRETE PAVEMENT**

- NO CONCRETE PAVING SHALL BE ALLOWED PRIOR TO MAY FIRST OR AFTER NOVEMBER FIRST. ( UNLESS APPROVED BY THE DPW SUPERINTENDENT )
- AIR TEMPERATURE AT POINT OF PLACEMENT, AWAY FROM ARTIFICIAL HEAT, SHALL BE AT LEAST 30° F AND RISING.
- TEMPERATURE OF CONCRETE AT TIME OF PLACEMENT SHALL BE BETWEEN 45° F AND 90° F.
- CONCRETE SHALL HAVE A SLUMP BETWEEN 2"-3".
- CONCRETE SHALL HAVE AN AIR CONTENT OF 6% ±1%.
- CONCRETE SHALL HAVE A 28 DAY COMPRESSIVE STRENGTH OF 3500 PSI ( MIN. )
- MAXIMUM TIME INTERVAL BETWEEN CHARGING OF MIXER AND PLACING OF CONCRETE, MINUTES:

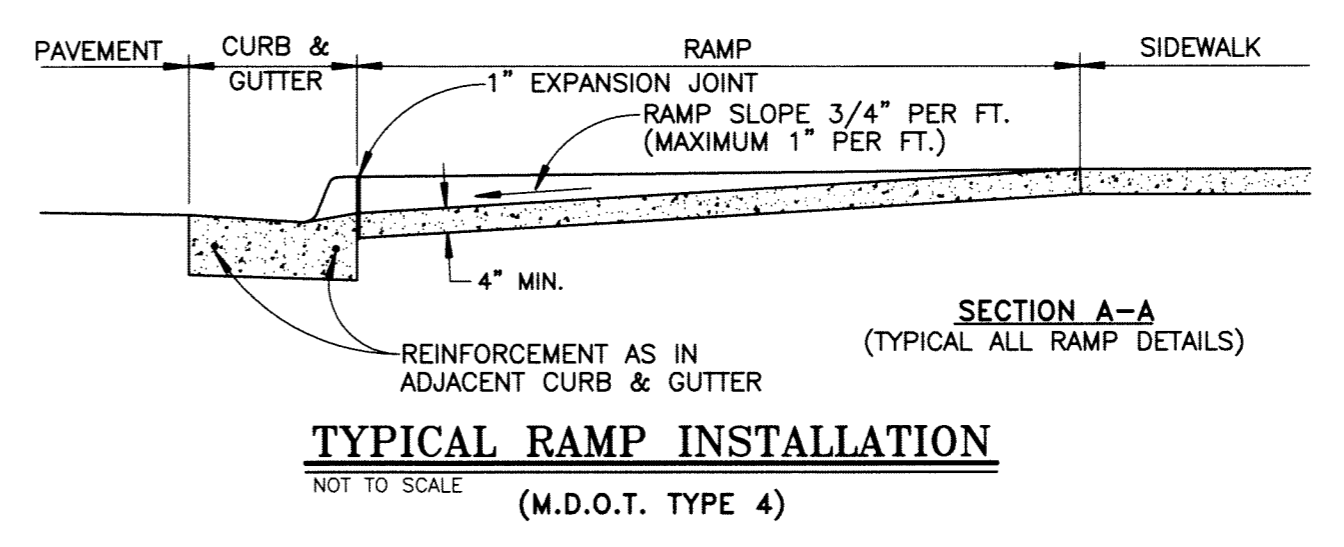
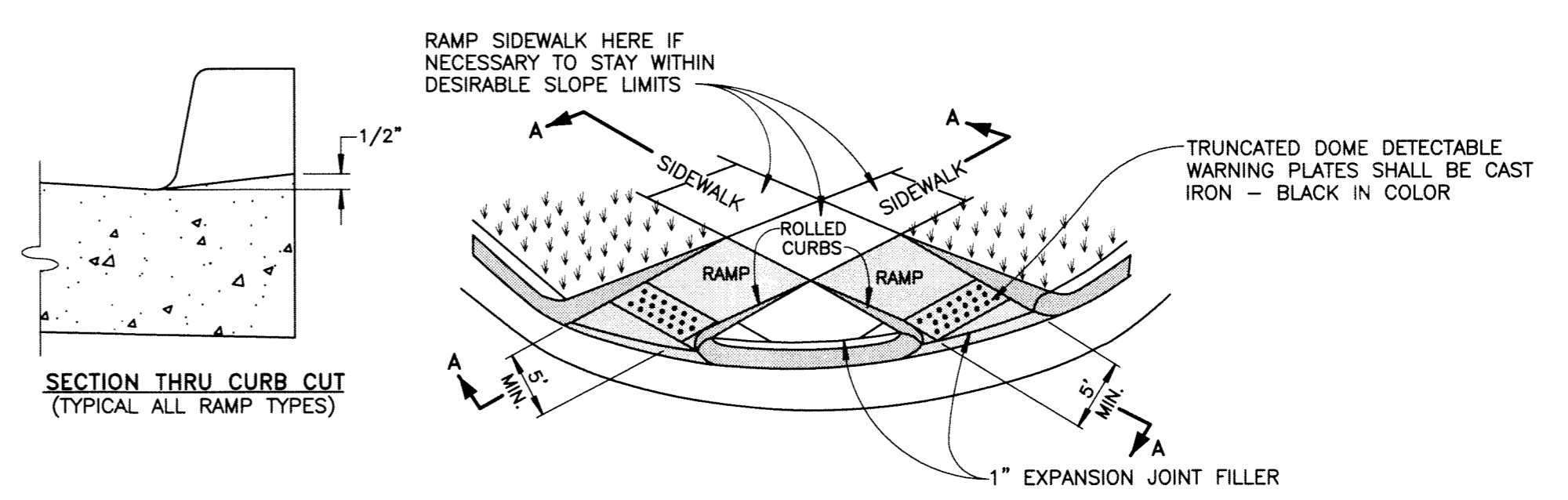
**GENERAL NOTES**

- PRIOR TO PLACEMENT OF BASE MATERIAL OR PAVEMENTS THE CONTRACTOR SHALL PROOFROLL THE SUBGRADE AND REMOVE ANY UNSUITABLE MATERIAL OBSERVED.
- ALL BASE MATERIAL SHALL BE COMPACTED TO 95% OF ITS MAXIMUM UNIT WEIGHT.
- FOR RESIDENTIAL USES, THE OWNER SHALL RETAIN THE SERVICES OF A GEOTECHNICAL CONSULTING/TESTING FIRM, ALL FILL MATERIAL AND BASE MATERIAL SHALL BE TESTED AND ITS COMPACTION AND SUITABILITY FOR ACCEPTANCE BY SAID TESTING FIRM. THE OWNER SHALL SUPPLY THREE COPIES OF THE GEOTECHNICAL REPORT AND CERTIFICATION TO THE CITY DEPARTMENT OF PUBLIC WORKS.
- IF IN THE OPINION OF THE INSPECTOR/ENGINEER, FIELD CONDITIONS WARRANT ADDITIONAL TESTING, THE DEVELOPER SHALL ARRANGE FOR AND PAY FOR ALL REQUIRED TESTING.

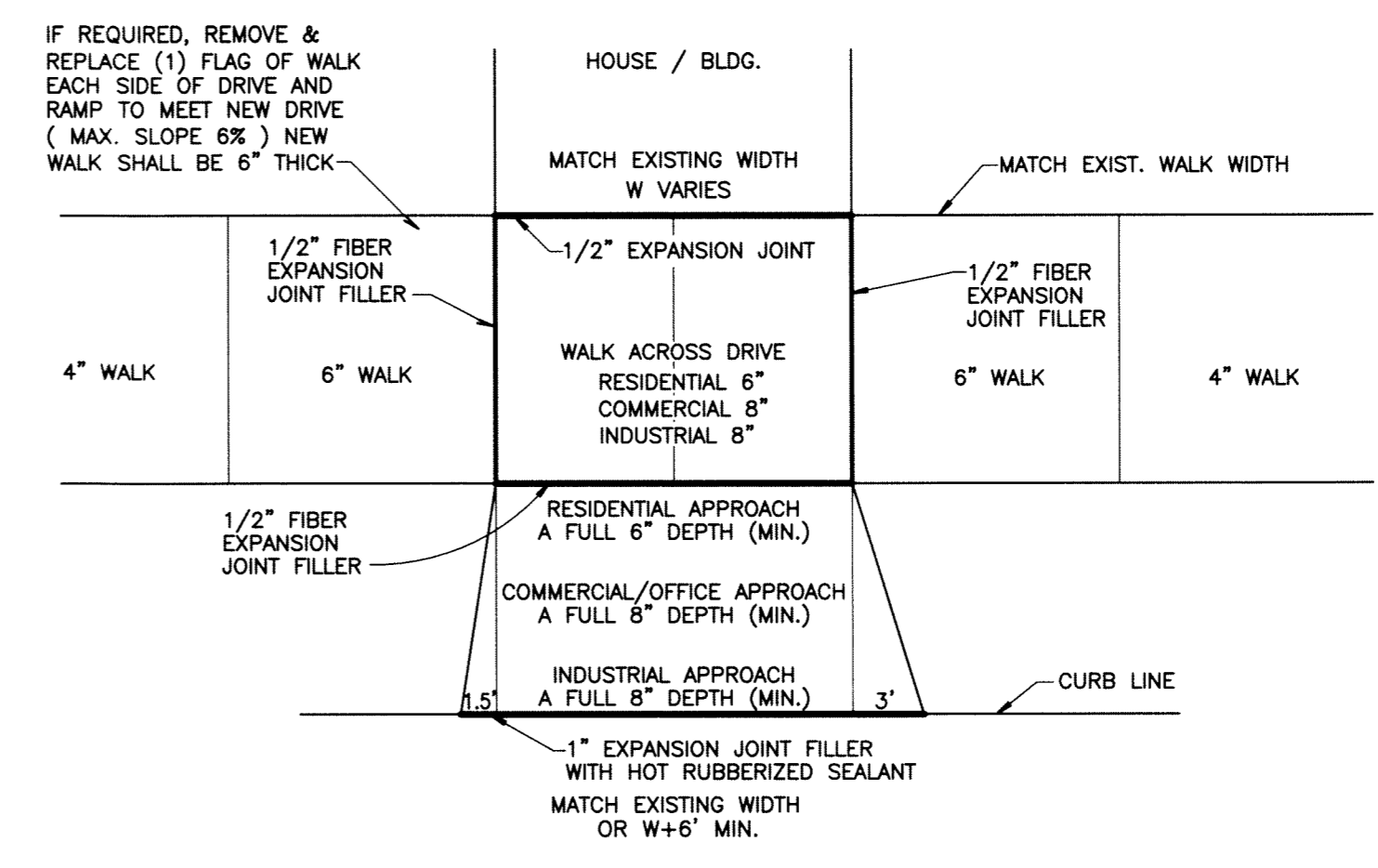
TYPE OF UNIT	TEMPERATURE OF CONCRETE		
	BELOW 60° F	60° F TO 85° F	ABOVE 85° F
CLOSED TOP AGITATING UNITS & TRUCK MIXERS ( A )	90	60	45
TRUCK MIXERS AND CLOSED TOP AGITATING UNITS WITH CONCRETE CONTAINING WATER-REDUCING RETARDING ADMIXTURE	120	90	70

( A ) SUPERSTRUCTURE CONCRETE SHALL MEET THE TIME LIMITS FOR CLOSED TOP AGITATING UNITS AND TRUCK MIXERS.

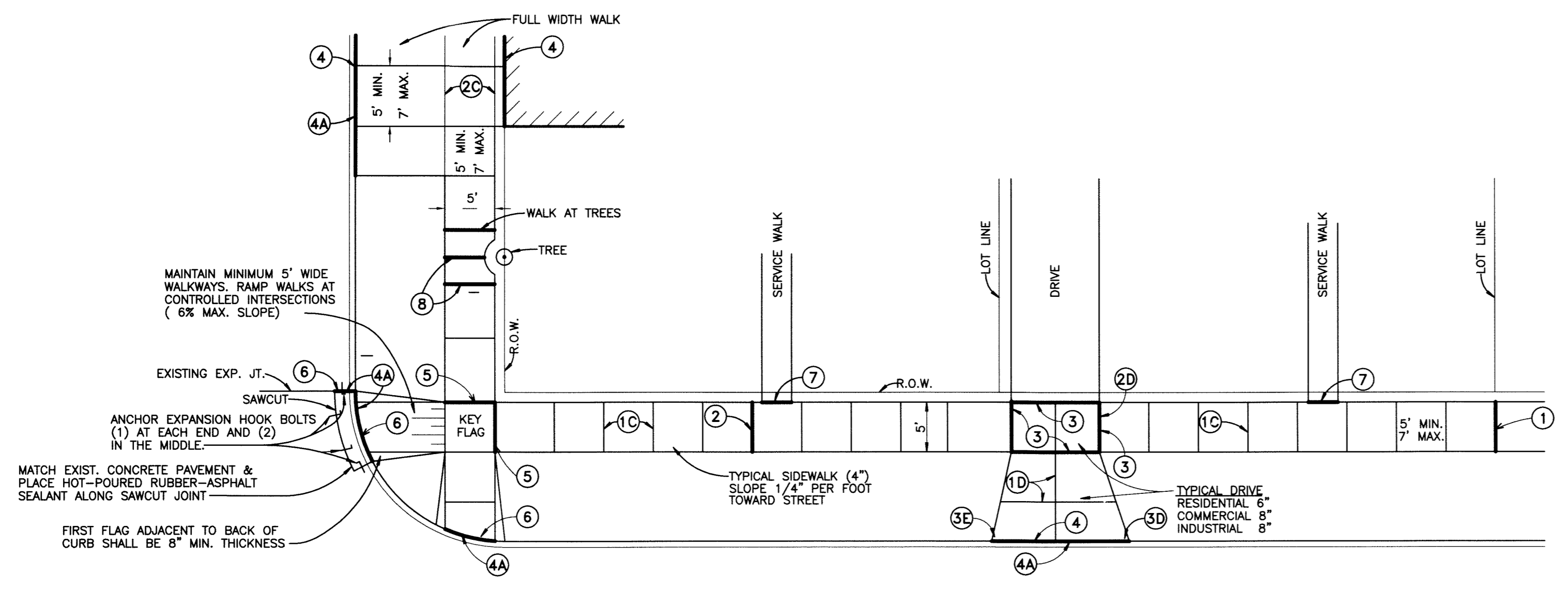
8. SPECIAL CONDITIONS SHALL REQUIRE REVIEW AND APPROVAL THE CITY ENGINEER.



**TYPICAL RAMP INSTALLATION**  
NOT TO SCALE  
(M.D.O.T. TYPE 4)



**REMOVAL AND REPLACEMENT OF  
EXISTING DRIVE APPROACH  
FOR EXISTING OR NEW  
PAVEMENT CONDITION**  
NOT TO SCALE



**\* EXPANSION JOINTS**

- PLACE 1/2" FIBER EXP. JOINT FILLERS AT LOT LINES WHEN LOTS ARE 50' OR LESS.
- ADDITIONAL 1/2" FIBER EXP. JOINT FILLERS FOR LOTS GREATER THAN 50', NOT TO EXCEED 50' INTERVALS.
- PLACE 1/2" FIBER EXP. JOINT FILLERS EACH SIDE OF DRIVE.
- PLACE 1" FIBER EXP. JOINT FILLERS AT CURB AND BUILDING OR R.O.W. LINE.
- AT CURB LINE, EXPANSION JOINTS SHALL BE SEALED WITH HOT-POURED RUBBER-ASPHALT SEALANT.
- PLACE 1/2" FIBER EXP. JOINT FILLERS AT KEY FLAG OF CROSS-WALKS.
- PLACE 1" FIBER EXP. JOINT FILLERS AT INTERSECTIONS OF CURB RADIUS AND IN LINE WITH EXISTING JOINTS.
- PLACE 1/2" FIBER EXP. JOINT FILLER AT INTERSECTION OF SERVICE WALK & CURB ALSO AT SERVICE WALK & WALK.

- PLACE 1/2" FIBER EXP. JOINT FILLERS AT EITHER SIDE OF SIDEWALK ABUTTING TREE AND AT CENTERLINE JOINT. ROOT BARRIERS MAY BE REQUIRED.
- PLACE CONTRACTION JOINTS AT INTERVALS NOT LESS THAN 5' OR GREATER THAN 7', FULL WIDTH OF WALK. JOINT DEPTH SHALL BE 1/4" THICKNESS OF CONCRETE.
- PLACE CONTRACTION JOINTS AT WALK LINES FOR FULL WIDTH SIDEWALK.
- PLACE CONTRACTION JOINTS SO THAT NO SECTION OF THE CONCRETE DRIVEWAY EXCEEDS A DIMENSION OF 10'x10'.
- PLACE 1" FIBER EXPANSION FILLER AT ALL SIDES OF A COMMERCIAL DRIVE.
- WIDTH OF APPROACH AT STREET SHOULD BE MIN. 3' WIDER THAN WIDTH AT SIDEWALK.
- WIDTH OF APPROACH AT STREET SHOULD BE MIN. 1.5' WIDER THAN WIDTH AT SIDEWALK.

**CONTRACTION JOINTS**

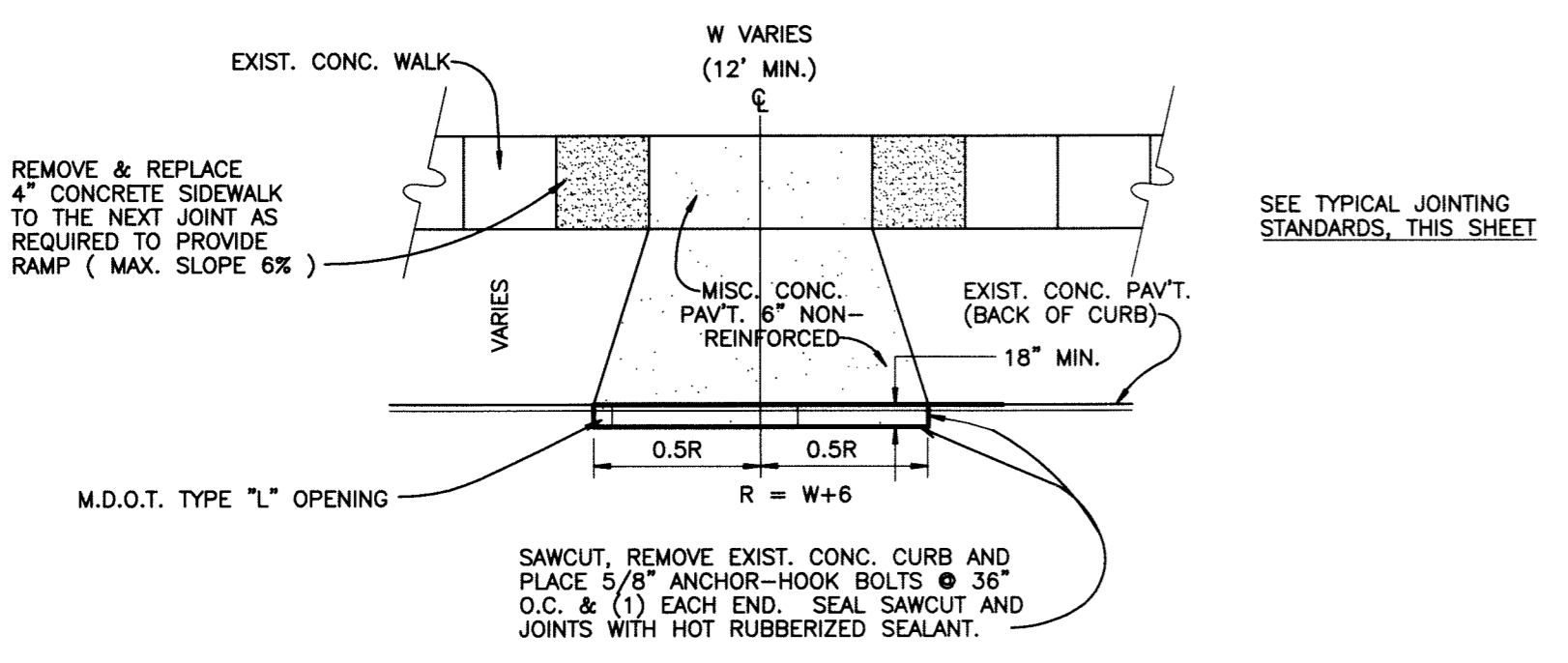
**DRIVEWAYS**

- \* FIBER EXPANSION JOINT FILLERS SHALL BE FULL DEPTH.

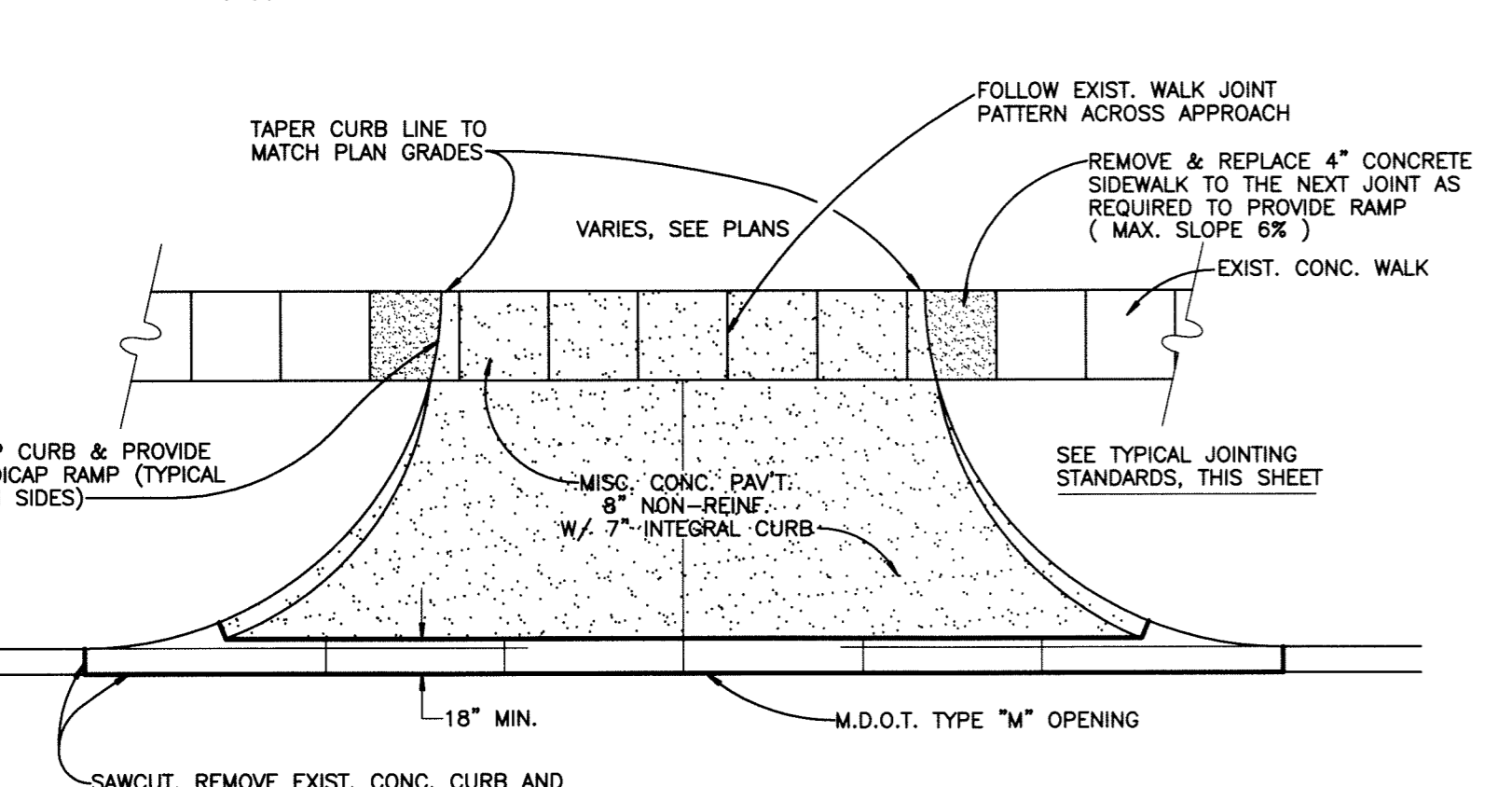
**NOTES**

- CONCRETE WORK NOT CONSTRUCTED UNDER THE CITY'S CONTRACTOR MUST BE DONE UNDER A PERMIT, SECURED THROUGH THE CITY OF ROCHESTER DEPARTMENT OF PUBLIC WORKS.
- NO CONCRETE SHALL BE PLACED UNTIL A PRE-CHECK HAS BEEN REQUESTED BY THE CONTRACTOR OR HOME-OWNER AND APPROVED BY THE CITY OF ROCHESTER D.P.W. (248) 651-5165 - AT LEAST FORTY EIGHT (48) HOURS IN ADVANCE, FINAL INSPECTION IS ALSO REQUIRED AT THE PLACEMENT OF CONCRETE.
- ALL WORK SHALL CONFORM TO THE CITY OF ROCHESTER STANDARDS & SPECIFICATIONS AVAILABLE THROUGH THE CITY ENGINEER.
- HANDICAP RAMPS SHALL MEET A.D.A. BARRIER FREE REQUIREMENTS.
- TRUNCATED DOME DETECTABLE WARNING PLATES SHALL BE CAST IRON - BLACK IN COLOR

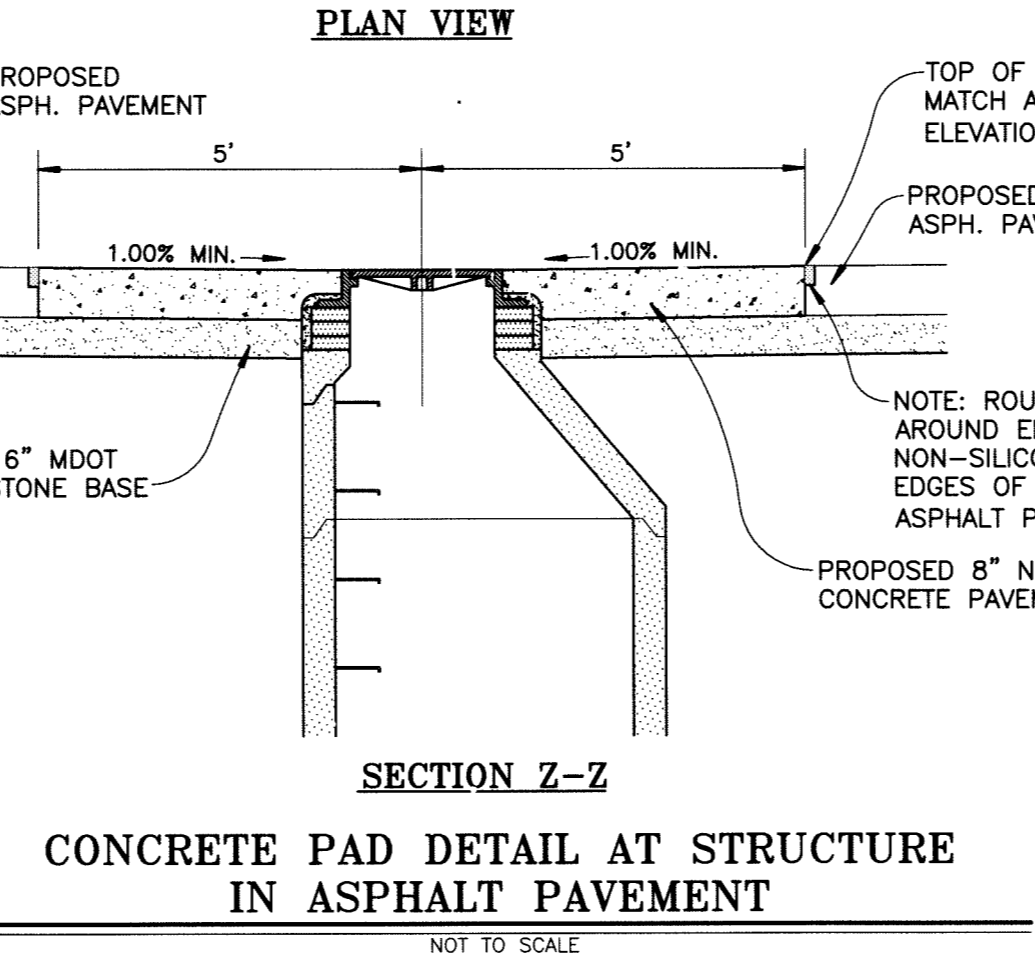
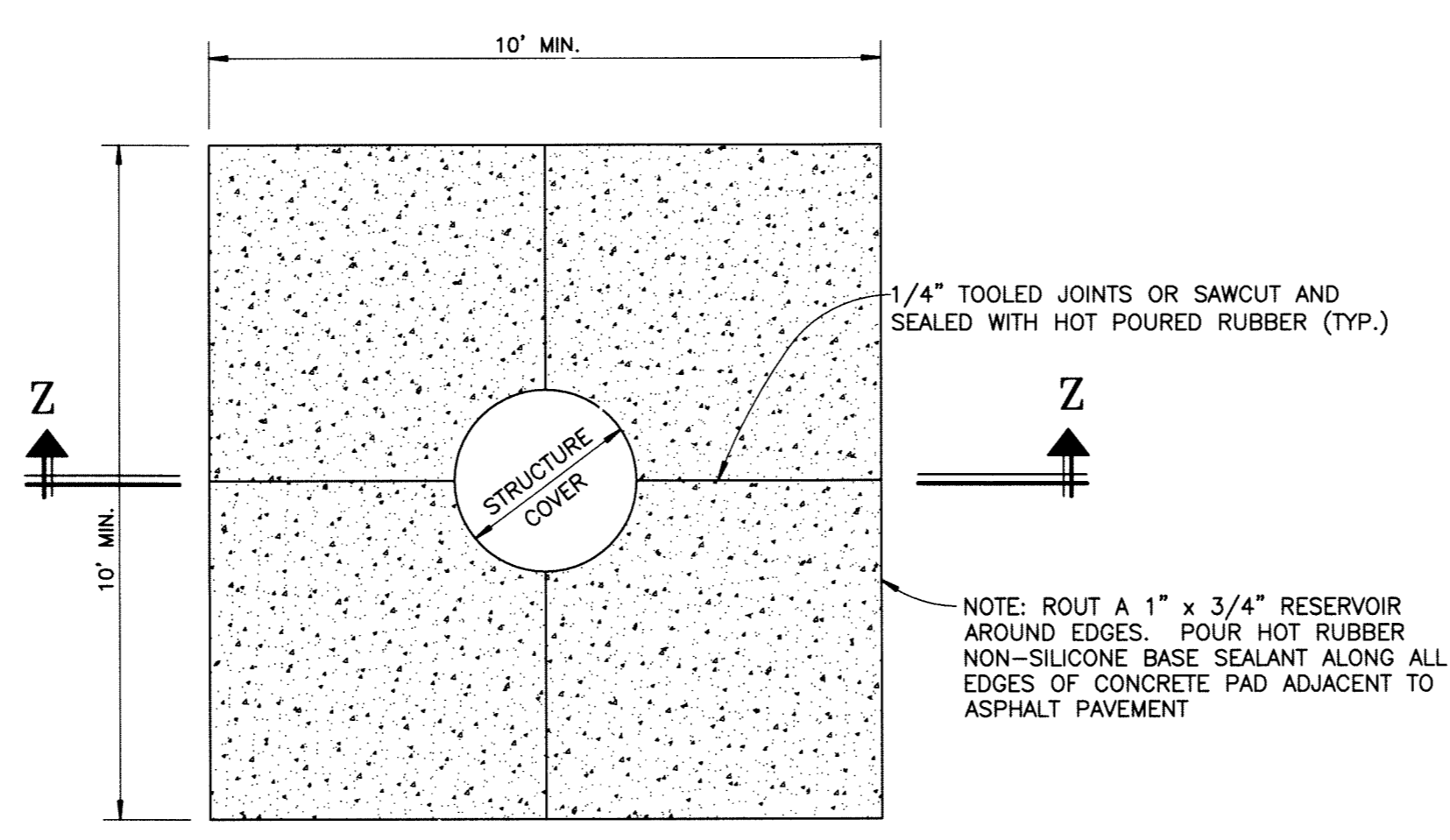
**TYPICAL SIDEWALK & DRIVE APPROACH JOINTING STANDARDS**  
NO SCALE



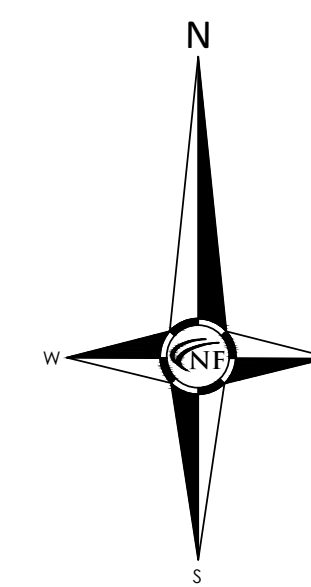
**NEW RESIDENTIAL DRIVEWAY LAYOUT  
FOR EXISTING PAVEMENT CONDITION**  
NO SCALE



**NEW COMMERCIAL DRIVEWAY LAYOUT  
FOR EXISTING PAVEMENT CONDITION**  
NO SCALE



**CONCRETE PAD DETAIL AT STRUCTURE  
IN ASPHALT PAVEMENT**  
NOT TO SCALE

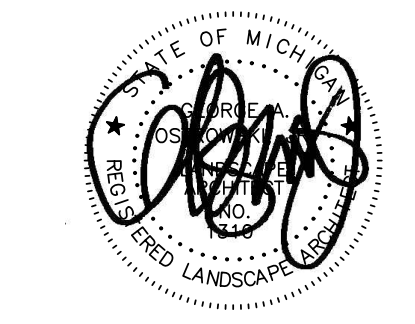


**NOWAK & FRAUS ENGINEERS**

CIVIL ENGINEERS  
LAND SURVEYORS  
LAND PLANNERS

NOWAK & FRAUS ENGINEERS  
46777 WOODWARD AVE.  
PONTIAC, MI 48342-5032  
TEL. (248) 332-7931  
FAX. (248) 332-8257  
WWW.NOWAKFRAUS.COM

SCALE



PROJECT  
Chief Financial Credit Union  
515 S. Rochester Rd.

CLIENT  
CBI Design Professionals  
838 W. Long Lake Rd  
Suite 110  
Bloomfield Hills, MI 48302

Contact: Amanda Fox  
Ph: (248) 645-2605

PROJECT LOCATION  
Part of the Northwest 1/4 of Section 14  
T. 3 North, R. 11 East  
City of Rochester and City of Rochester Hills, Oakland County, Michigan

SHEET  
Tree Preservation



Know what's below  
Call before you dig.

DATE ISSUED/REVISED  
08/28/2020 REVISED PER ARCHITECT

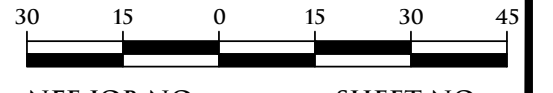
DRAWN BY:  
G. Ostrowski

DESIGNED BY:  
G. Ostrowski

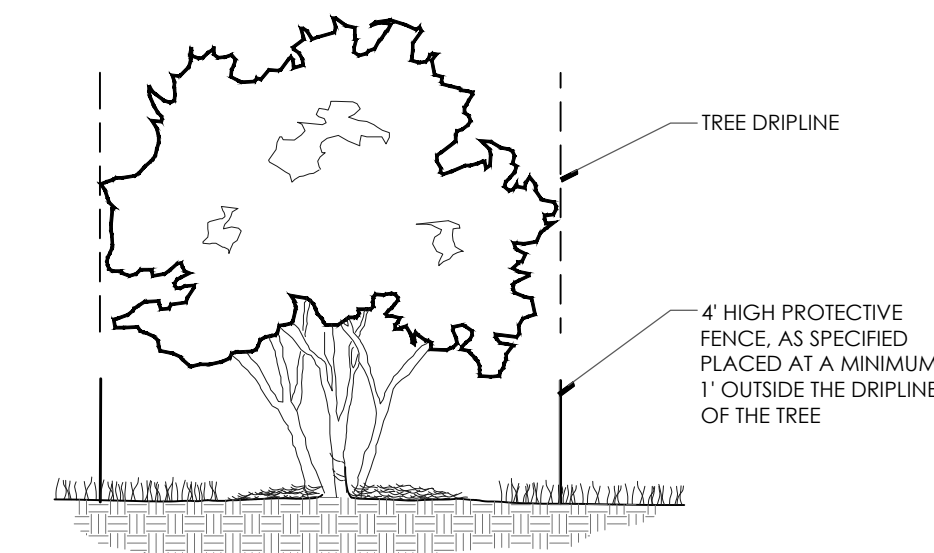
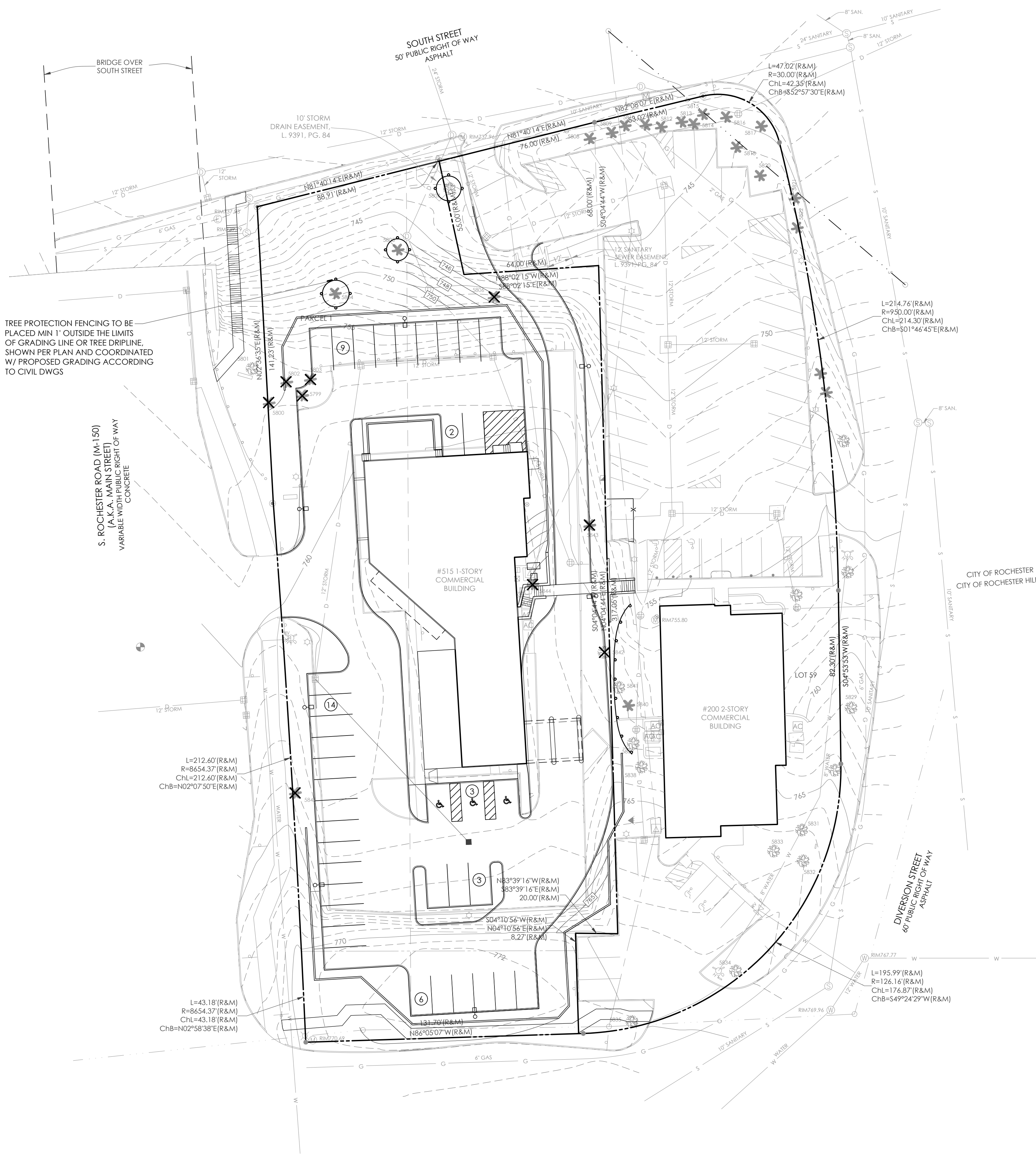
APPROVED BY:  
G. Ostrowski

DATE:  
August 4, 2020

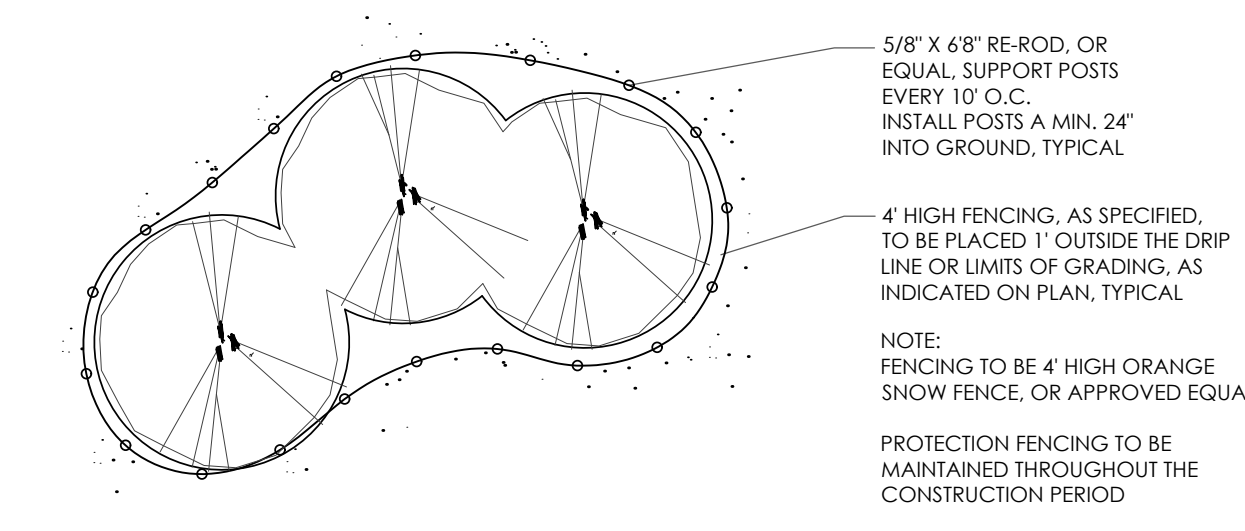
SCALE: 1" = 30'



NFE JOB NO. SHEET NO.  
**L880 L1**



TREE PROTECTION DETAIL-SECTION



TREE PROTECTION DETAIL-PLAN

LEGEND:

- TREES TO BE REMOVED
- TREES TO REMAIN
- TREE PROTECTION FENCING

GENERAL TREE PROTECTION NOTES

1. APPROVED TREE PROTECTION SHALL BE ERECTED PRIOR TO THE START OF CONSTRUCTION ACTIVITIES, AND SHALL REMAIN IN PLACE UNTIL THE IN PLACE UNTIL CONSTRUCTION IS COMPLETE.
2. ALL UNDERSTORY VEGETATION WITHIN THE LIMITS OF PROTECTIVE FENCING SHALL BE PRESERVED.
3. NO PERSON MAY CONDUCT ANY ACTIVITY WITHIN THE DRIP LINE OF ANY TREE DESIGNATED TO REMAIN, INCLUDING BUT NOT LIMITED TO, PLACING SOLVENTS, BUILDING MATERIALS, CONSTRUCTION EQUIPMENT, OR SOIL DEPOSITS WITHIN THE DRIP LINE.
4. WHERE GROUPINGS OF TREES ARE TO REMAIN, TREE FENCING SHALL BE PLACED AT THE LIMITS OF GRADING LINE.
5. DURING CONSTRUCTION, NO PERSON SHALL ATTACH ANY DEVICE OR WIRE TO ANY TREE SCHEDULED TO REMAIN.
6. ALL UTILITY SERVICE REQUESTS MUST INCLUDE NOTIFICATION TO THE INSTALLER THAT PROTECTED TREES MUST BE AVOIDED. ALL TRENCHING SHALL OCCUR OUTSIDE OF THE PROTECTIVE FENCING.
7. SWALES SHALL BE ROUTED TO AVOID THE AREA WITHIN THE DRIP LINES OF PROTECTED TREES.
8. TREES LOCATED ON ADJACENT PROPERTIES THAT MAY BE AFFECTED BY CONSTRUCTION ACTIVITIES MUST BE PROTECTED.
9. ROOT ZONES OF PROTECTED TREES SHOULD BE SURROUNDED WITH RIGIDLY STAKED FENCING.
10. THE PARKING OF IDLE AND RUNNING EQUIPMENT SHALL BE PROHIBITED UNDER THE DRIP LINE OF PROTECTED TREES.
11. THE STRIPPING OF TOPSOIL FROM AROUND PROTECTED TREES SHALL BE PROHIBITED.
12. ALL TREES TO BE REMOVED SHALL BE CUT AWAY FROM TREES TO REMAIN.
13. THE CRIBBING OF UNDERSTORY VEGETATION WITHIN CONSTRUCTION AREAS SHOULD BE CLEARED BY CUTTING VEGETATION AT THE GROUND WITH A CHAIN SAW OR MINIMALLY WITH A HYDRO-JANE.
14. THE CONTRACTOR IS RESPONSIBLE FOR THE REPLACEMENT PER ORDINANCE GUIDELINES FOR THE DAMAGE OR REMOVAL OF ANY TREE DESIGNATED TO REMAIN.
15. TREES TO BE REMOVED SHALL BE FIELD VERIFIED, EVALUATED AND FLAGGED FOR REMOVAL BY THE LANDSCAPE ARCHITECT OR FORESTER, ONLY AS DIRECTED BY THE OWNER OR OWNERS REPRESENTATIVE.

TREE PRESERVATION SUMMARY:

TOTAL NUMBER OF TREES SURVEYED:	47
TOTAL TREES ON-SITE:	13
LESS NUISANCE TREES:	2
NET REGULATED TREES ON SITE:	11
REGULATED TREES TO BE REMOVED:	7
TOTAL NUMBER OF TREES TO REMAIN:	4
TOTAL LANDMARK TREES REMOVED:	0
TOTAL REGULATED DBH TO BE REPLACED:	60' (120' X 50%)
TOTAL TREES TO BE REPLACED:	20 TREES (607'3")

TREE PROTECTION FENCING TO BE PLACED MIN 1' OUTSIDE THE LIMITS OF GRADING LINE OR TREE DRIPLINE, SHOWN PER PLAN AND COORDINATED W/ PROPOSED GRADING ACCORDING TO CIVIL DWGS

S. ROCHESTER ROAD (M.L. 50)  
(A.K.A. MAIN STREET) PART OF WAY  
VARIABLE WID. CONCRETE

CITY OF ROCHESTER  
CITY OF ROCHESTER HILLS

DIVERSION STREET  
67' PUBLIC RIGHT OF WAY  
ASPHALT

L=212.60'(R&M)  
R=8654.37'(R&M)  
CHL=212.60'(R&M)  
CHB=N02°17'50"E(R&M)

L=43.18'(R&M)  
R=8654.37'(R&M)  
CHL=43.18'(R&M)  
CHB=N02°58'38"E(R&M)


N83°39'16"W(R&M)  
83°39'16"E(R&M)  
20.00'(R&M)

S04°10'55"W(R&M)  
N04°10'55"E(R&M)  
8.27'(R&M)

L=195.99'(R&M)  
R=126.16'(R&M)  
CHL=176.87'(R&M)  
CHB=S49°24'29"W(R&M)



## D-Series Size 0 LED Area Luminaire



**Specifications**

EPA: 0.95 ft<sup>2</sup> (0.09 m<sup>2</sup>)

Length: 26" (660 mm)

Width: 13" (330 mm)

Height: 3" (76 mm)

Weight: 16 lbs (7.3 kg)

**Ordering Information**

EXAMPLE: DSX0 LED P6 40K T3M MVOLT SPA NLTAR2 PIRHN DBBXD

Series	LEDs	Color Temperature	Distribution	Mounting	Shipped Included
DSX0 LED	P1, P4, P7	30K, 3000K	T15 Type II short (Automated)	MVOLT™	SPA Square pole mounting
	P2, P5	40K, 4000K	T25 Type II short	120"	SPA Round pole mounting
	P3, P6	50K, 5000K	T25 Type II medium	240"	WBA Wall bracket
	P8		T35 Type II short	240"	SPMBA Square pole universal mounting adapter
	P10		T35 Type II medium	240"	SPMBA Round pole universal mounting adapter
	P11		T35 Type II very short	480"	SPMBA Round pole universal mounting adapter

**Control options**

**Shipped installed**

**Other options**

**Shipped separately**

**Finish**

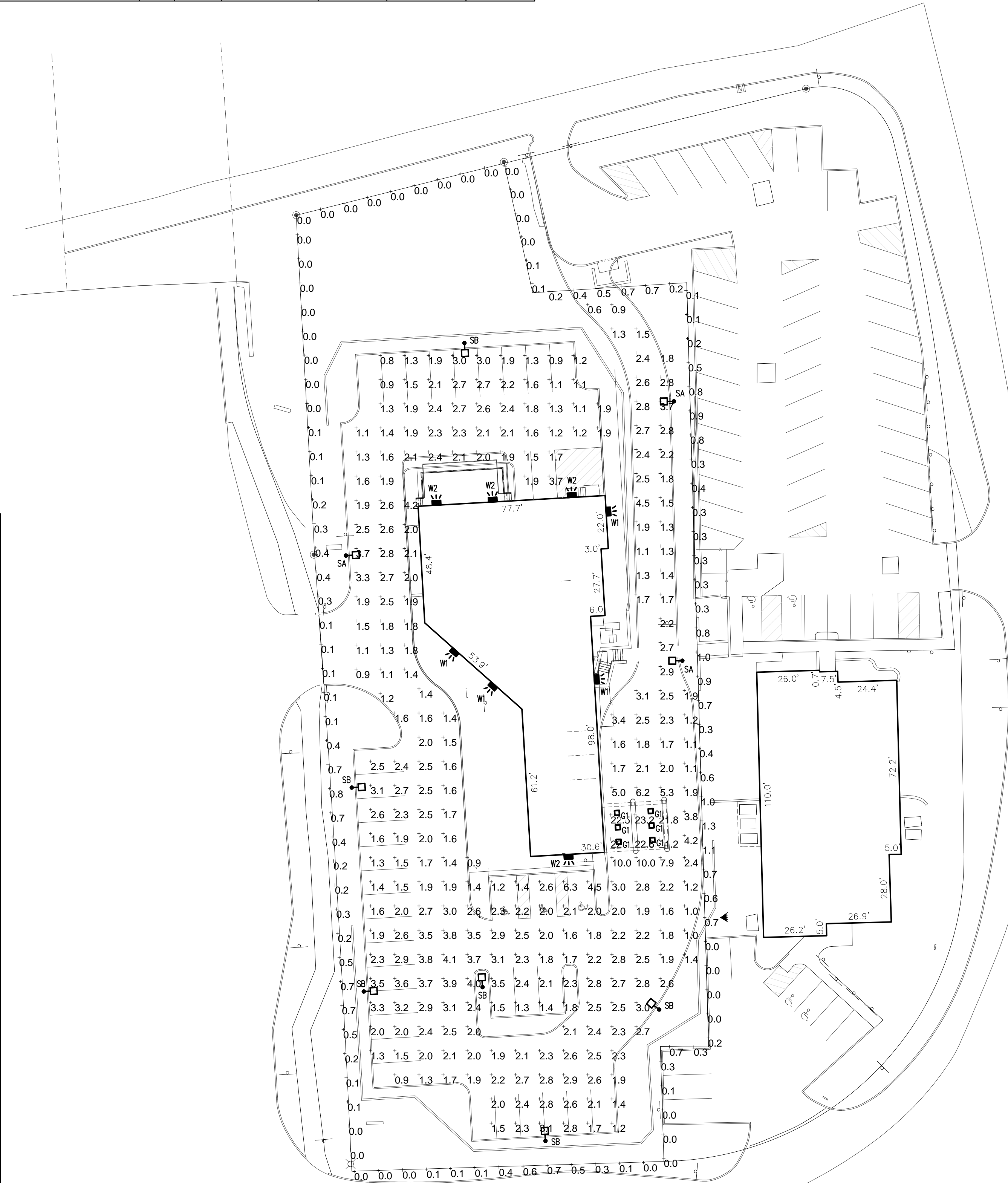
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### Lighting Schedule

Symbol	Label	Quantity	Manufacturer	Catalog Number	Description	Lamp	Number Lamps	Filename	Lumens Per Lamp	Light Loss Factor	Wattage
SA	SA	3	Lithonia Lighting	DSX0 LED P5 40K T3M MVOLT HS	DSX0 LED P5 40K T3M MVOLT with housings shield MOUNTED @ 20'-0" AFG	LED	1	DSX0_LED_P5_40K_T3M_MVOLT_HS.ies	9194	0.9	89
SB	SB	6	Lithonia Lighting	DSX0 LED P5 40K TFTM MVOLT HS	DSX0 LED P5 40K TFTM MVOLT with housings shield MOUNTED @ 20'-0" AFG	LED	1	DSX0_LED_P5_40K_TFTM_MVOLT_HS.ies	9119	0.9	89
G1	G1	6	Lithonia Lighting	EPANL 2x2 4000LM 80CRI 40K	EPANL 2x2 4000 Nominal Lumens, 80 CRI, 4000K CCT MOUNTED @ 10'-0" AFG	LED	1	EPANL_2x2_4000LM_80CRI_40K.ies	4144	0.9	31.68
W1	W1	4	Lithonia Lighting	WST LED P2 40K VW MVOLT	WST LED, Performance package 2, 4000 K, visual comfort wide, MVOLT MOUNTED @ 10'-0" AFG	LED	1	WST_LED_P2_40K_VW_MVOLT.ies	3511	0.9	25
W2	W2	4	Lithonia Lighting	WST LED P2 40K VF MVOLT	WST LED, Performance package 2, 4000K, visual comfort forward throw, MVOLT MOUNTED @ 10'-0" AFG	LED	1	WST_LED_P2_40K_VF_MVOLT.ies	3469	0.9	25

### Statistics

Description	Symbol	Avg	Max	Min	Max/Min	Avg/Min
Canopy	+	22.2 fc	23.2 fc	21.2 fc	1.1:1	1.0:1
North Parking/Drive	+	1.9 fc	4.2 fc	0.8 fc	5.3:1	2.4:1
NorthEast Drive	+	2.3 fc	6.2 fc	0.6 fc	10.3:1	3.8:1
Property Line	+	0.3 fc	1.3 fc	0.0 fc	N/A	N/A
South Parking	+	2.4 fc	10.0 fc	0.9 fc	11.1:1	2.7:1



## EPANL LED

1'x4', 2'x2', & 2'x4'

**FEATURES & SPECIFICATIONS**

**INTENDED USE** — The EPANL Series LED Edge-Up Flat Panel provides a fully luminous appearance across the face of the lens. This provides a soft, glare-free solution that is visually comfortable within the space. Suitable for many lighting applications including schools, offices and other commercial spaces, retail, convenience stores, hospitals and healthcare facilities. **Certain airborne contaminants can diminish the integrity of acrylic and/or polycarbonate. Click here for Acrylic/Polycarbonate Compatibility table for suitable uses.**

**CONSTRUCTION** — Built with an aluminum frame for strength and durability, the seamless frame prevents light leak at the corners. The PMMA light guide plate and lens resist yellowing and transmits light with superior efficacy. The satin white lens provides excellent shielding and fully luminous appearance. EPANL's low-profile design provides low installation flexibility especially in restricted spaces. The back plate includes integral 1/4" bar clips for installation into 1/2" or 3/4" rigid ceilings. Fixtures may be recessed, suspended, surface box mounted or mounted in a hand-celing access section for more information. Fixtures may be mounted and wired in continuous rows.

**Integrated Sensor (Light Wired Network)** — This sensor is slightly enabled, meaning it has the ability to communicate over an nLight network. When wired, using CAT-5 cabling, with other nLight-enabled sensors, power packs, or WallPods, an nLight control zone is created. Once linked to a Gateway, directly or via a bridge, the zone becomes capable of remote status monitoring and control via SensorView software.

**Integrated Smart Sensor (nLight Air Wireless Platform)** — The nLight sensor is nLight AIR enabled, meaning it has the ability to communicate over the wireless nLight control platform. It is available with an automatic dimming protocol, and other digital PM's in a comprehensive PMT dual technology occupancy sensor. It pairs to other luminaires and wall switches through our mobile app, CLARITY, which allows for simple sensor adjustment.

**Integrated Wireless Sensor (single recess controls)** — Sensor Switch, VERTIS, JOT or JOTV15 luminaires embedded occupancy and ambient light sensors allows the luminaire to power off when the space is unoccupied or when enough ambient light is entering the space. See page 3 for more details on the integrated wireless sensor.

**ELECTRICAL** — Long-life LEDs, coupled with a high-efficiency driver, provide superior illumination for extended service life. High Efficiency EPANL maintains 92.7% of lumens at 60,000 hours (L90/60,000, 0-100 dimming driver, dims to 1% or 10% and contains non-isolated dimming leads).

**LISTINGS** — CSA Certified to meet US and Canadian standards. Tested to meet UL956. Intended for indoor use only. Product must be used in non-ohmic controlled spaces. DesignLight Consortium™ (DLC) Premium qualified product and DLC qualified product. Not all versions of this product may be DLC Premium qualified or DLC qualified. Please check the DLC Qualified Products List at [www.dlcqualified.com/](http://www.dlcqualified.com/) or [www.dlc.com/](http://www.dlc.com/) to confirm which versions are qualified. Sample color shown. © 2011-2020 Acuity Brands Lighting, Inc. All rights reserved. Long connections, configurable product is used and certified to meet NSF Splash Zone 2.

**WARRANTY** — 5-year limited warranty. Complete warranty terms located at: [www.acuitybrands.com/warranty](http://www.acuitybrands.com/warranty)

**Note:** Actual performance may differ as a result of end-user measurement and application. All values are design or typical values, measured under laboratory conditions at 25 °C. Specifications subject to change without notice.

**Dimensions**

Length	2x4	2x2	2x4
Length	47.7"	23.70"	47.72"
Width	11.85"	23.70"	23.70"
Depth	2.39"	2.39"	2.39"
Weight	13.9 lbs	7.4 lbs	15.1 lbs

\*Base configurations; options may add weight

**Capable Luminaire**

This item is an A+ capable luminaire, which has been designed and tested to provide consistent color appearance and out-of-the-box control compatibility with simple commissioning.

- All configurations of this luminaire meet the Acuity Brands' specification for chromatic consistency
- This luminaire is part of an A+ Certified solution for nLight control networks when ordered with drivers marked by a **shaded background**
- This luminaire is part of an A+ Certified solution for nLight control networks, providing advanced control functionality at the luminaire level, when selection includes driver and control options marked by a **shaded background**

To learn more about A+, visit [www.acuitybrands.com/aplus](http://www.acuitybrands.com/aplus)

\*See ordering tree for details

## WST LED Architectural Wall Sconce

10" recessed mounting height in canopy

**Specifications**

**Luminaire**

Height: 8-1/2" (21.59 cm)

Width: 17" (43.18 cm)

Depth: 10-3/16" (25.7 cm)

Weight: 20 lbs (9.1 kg)

**Optional Back Box (PBBW)**

Height: 8-8/9" (25.56 cm)

Width: 17-0/1" (43.2 cm)

Depth: 1-7/8" (4.8 cm)

**Optional Back Box (BBW)**

Height: 4" (10.2 cm)

Width: 5-1/2" (14.2 cm)

Depth: 1-1/2" (3.8 cm)

**Capable Luminaire**

This item is an A+ capable luminaire, which has been designed and tested to provide consistent color appearance and out-of-the-box control compatibility with simple commissioning.

- All configurations of this luminaire meet the Acuity Brands' specification for chromatic consistency
- This luminaire is part of an A+ Certified solution for nLight control networks when ordered with drivers marked by a **shaded background**
- This luminaire is part of an A+ Certified solution for nLight control networks, providing advanced control functionality at the luminaire level, when selection includes driver and control options marked by a **shaded background**

To learn more about A+, visit [www.acuitybrands.com/aplus](http://www.acuitybrands.com/aplus)

\*See ordering tree for details

### SITE PHOTOMETRIC PLAN

Scale 1" = 30'

CBI DESIGN PROFESSIONALS

Proposed Renovation for Chief Financial Credit Union 515 S. Rochester Road, Rochester Hills, MI

JOB NO. 20016

DRAWN BY BW/KS

CHK'D BY RSL

RELEASE DATE

Site Plan Review - 9.24.2020

REVISION NO.

ARCHITECTS SEAL

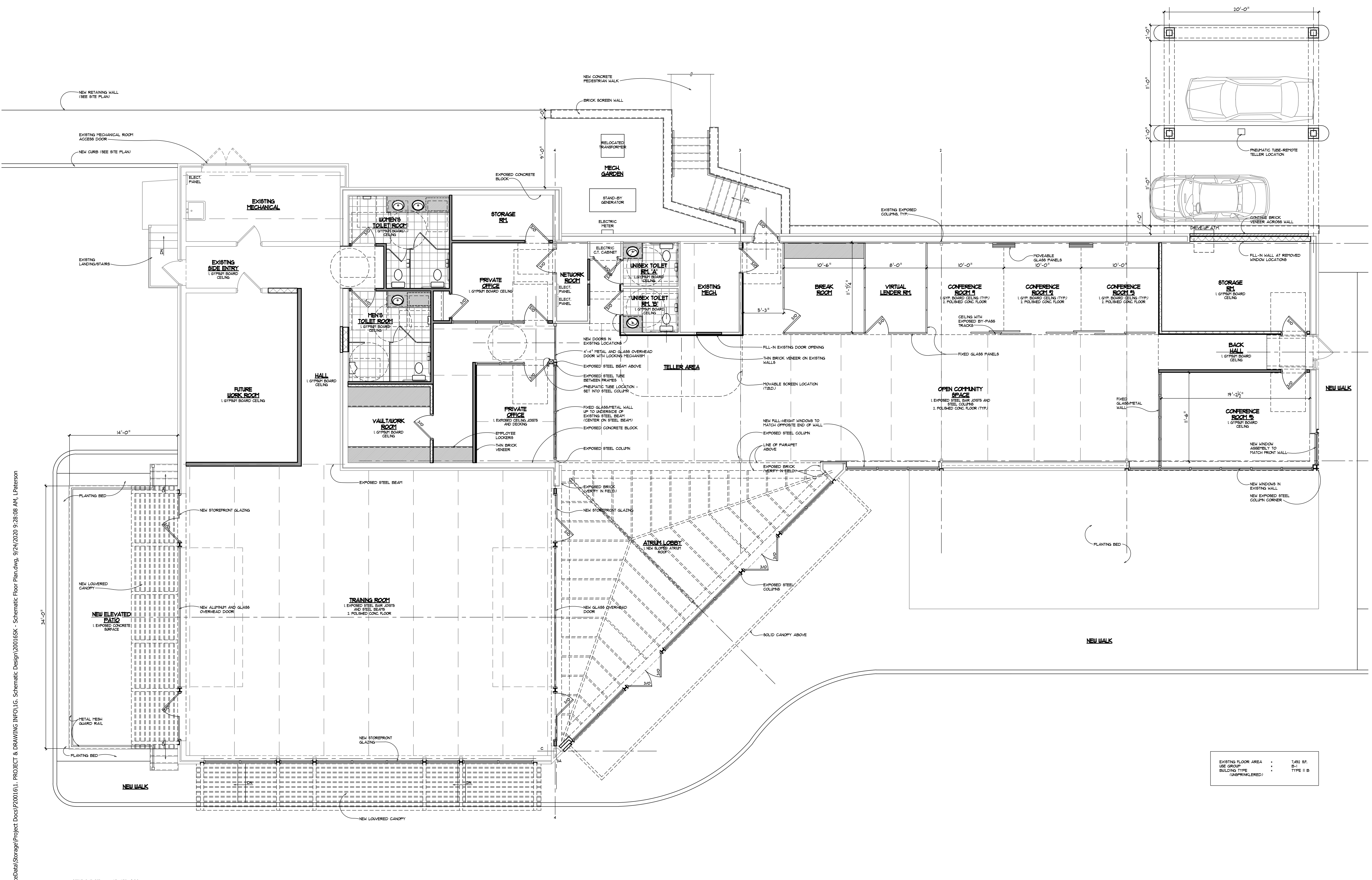
PE10

ETS ENGINEERING, INC. 838 W. Long Lake, Suite 110 Bloomfield Hills, MI 48302 P: 248.645.2605 F: 248.647.7307 www.cbidesign.net

ETS ENGINEERING, INC. TECHNOLOGY SOLUTIONS 4181/2 E. WASHINGTON C.D. BOX 1114 ROYAL OAK, MI 48068-1116 DYN: 248-744-0360 FAX: 248-744-0367 www.etsengineering.net

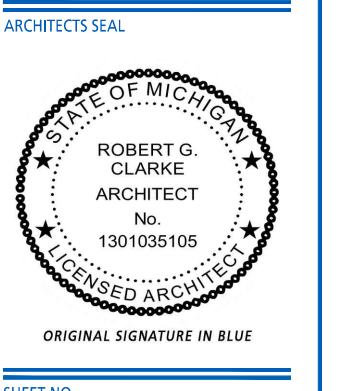
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SITE PHOTOMETRIC PLAN

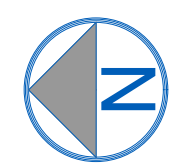


**FIRST FLOOR PLAN**  
SCALE 3/8" = 1'-0"

EXISTING FLOOR AREA	7,492 SF.
USE GROUP	B-1
BUILDING TYPE (UNSPRINKLERED)	TYPE II B

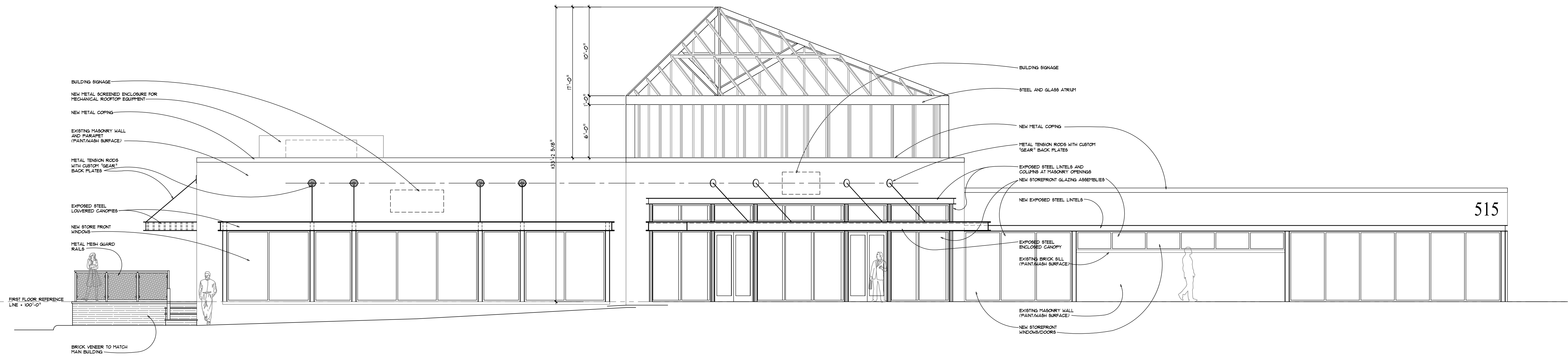


**SK1**

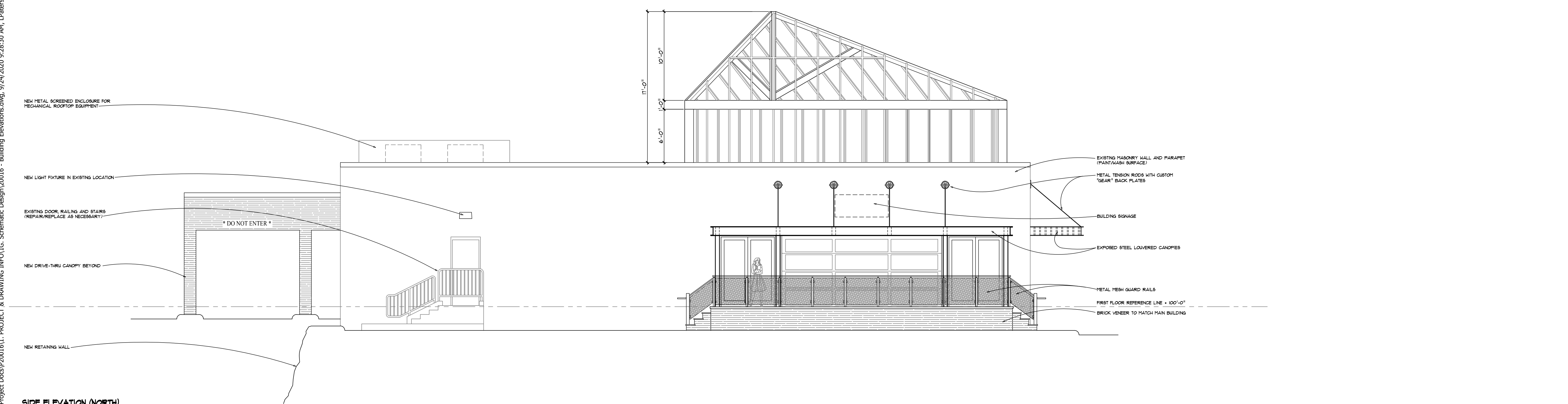




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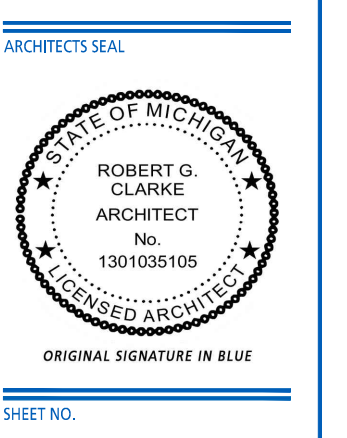


**FRONT ELEVATION (WEST)**  
SCALE 3/8" = 1'-0"

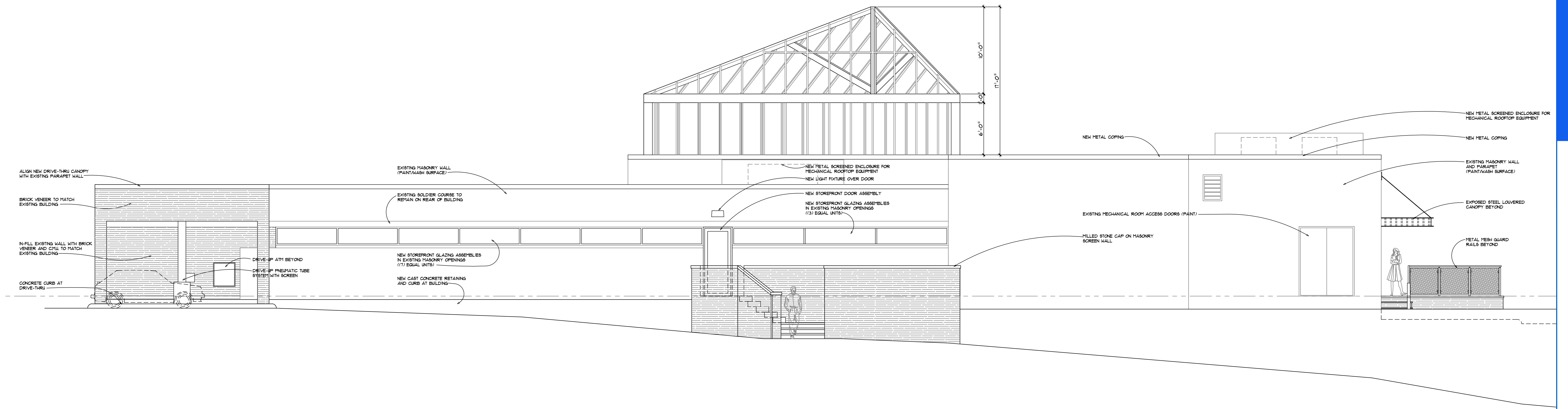


**SIDE ELEVATION (NORTH)**  
SCALE 3/8" = 1'-0"

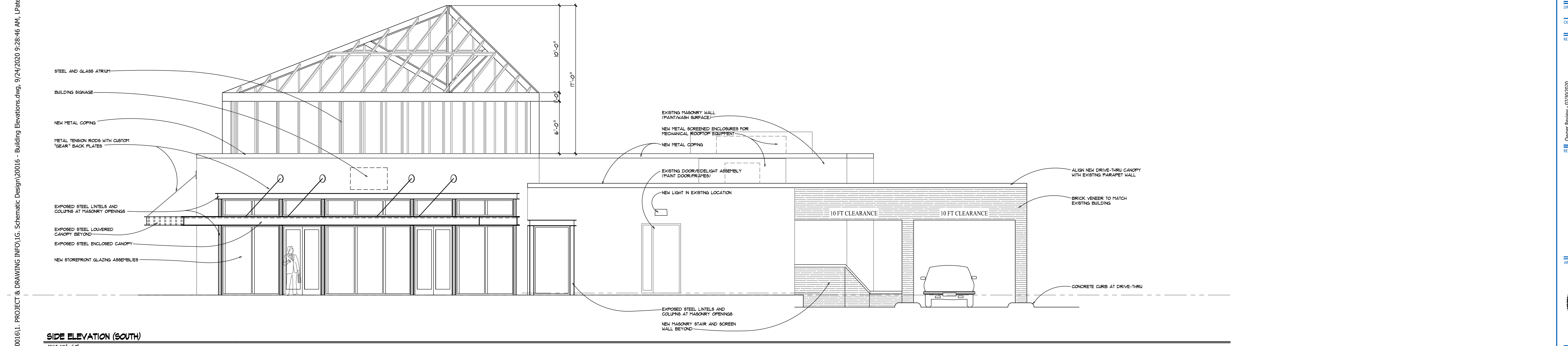
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DRAWN BY	<b>AEF</b>
COO BY	<b>RGC</b>
RELEASE DATE	
Check Review - 03/20/2020	
Owner Review - 08/25/2020	
Site Plan Review - 09/24/2020	
REVISION NO.	



**SK2**



**REAR ELEVATION (EAST)**  
SCALE 3/8" = 1'-0"



**SIDE ELEVATION (SOUTH)**  
SCALE 3/8" = 1'-0"

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SOUTHWEST 3D MODEL VIEW

NO SCALE



SOUTHEAST 3D MODEL VIEW

NO SCALE



NORTHEAST 3D MODEL VIEW

NO SCALE



NORTHWEST 3D MODEL VIEW

NO SCALE

JOB NO.  
**20016**

DRAWN BY  
AEF

COO BY  
RGC

RELEASE DATE

Owner Review - 03/30/2020  
Owner Review - 08/25/2020  
Site Plan Review - 09/24/2020

REVISION NO.

ARCHITECT'S SEAL



SHEET NO.

**SK4**

CBI Design Professionals  
838 W. Long Lake, Suite 110  
Bloomfield Hills, MI 48302

P: 248.645.2605  
F: 248.647.7307

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