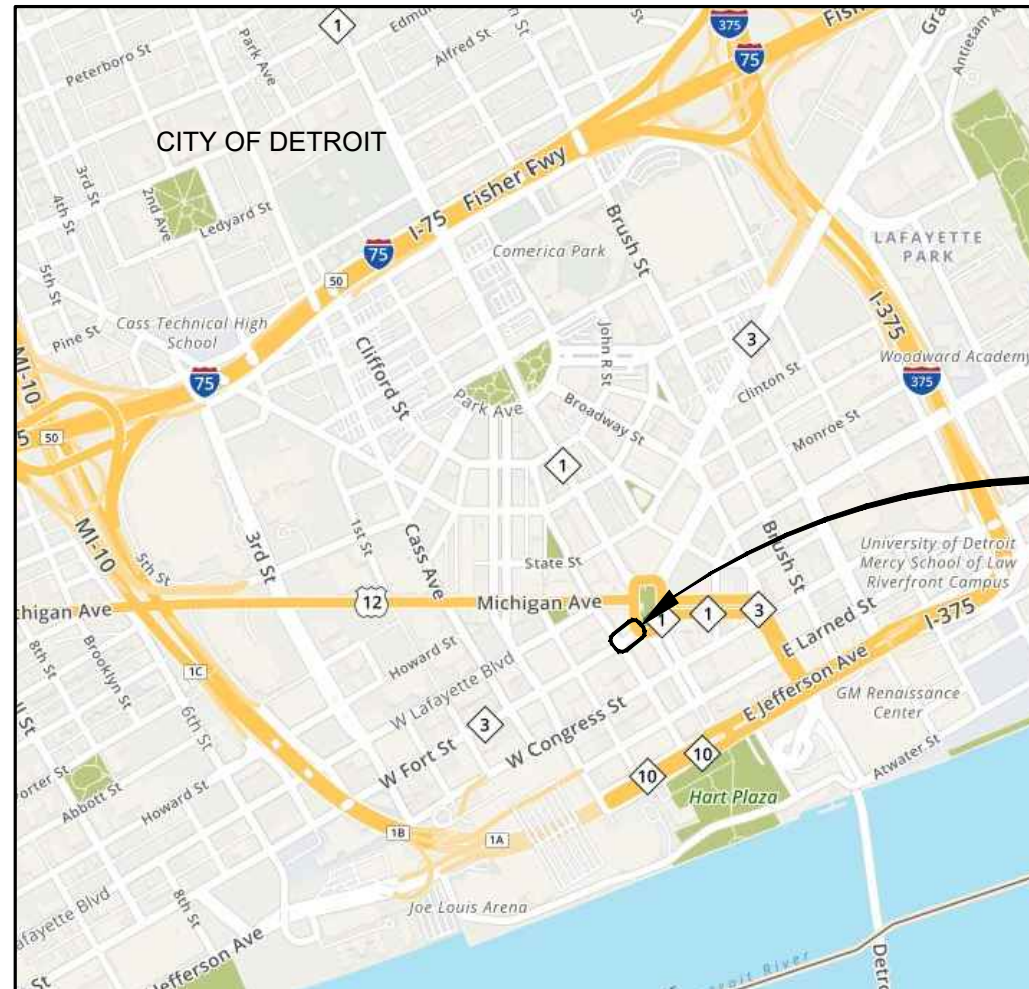


DOWNTOWN DETROIT PARTNERSHIP IN COOPERATION WITH THE CITY OF DETROIT WAYNE COUNTY, MICHIGAN FORT STREET AT CAMPUS MARTIUS

INDEX OF SHEETS	
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18-19	MATERIALS SCHEDULE AND PLAN
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UTILITY TRENCHES	R-83-C
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*AS MODIFIED BY THE CITY OF DETROIT CITY ENGINEERING DIVISION



PROJECT AREA

LOCATION MAP
N.T.S.

GENERAL PROVISIONS

THE IMPROVEMENTS COVERED BY THESE PLANS SHALL BE DONE IN ACCORDANCE WITH THE PROPOSAL AND ACCOMPANYING SPECIFICATIONS FOR THIS PROJECT INCLUDING THE 2012 MICHIGAN DEPARTMENT OF TRANSPORTATION STANDARD SPECIFICATIONS FOR CONSTRUCTION AND THE 2011 MICHIGAN MANUAL OF UNIFORM TRAFFIC CONTROL DEVICES.

THE LOCATION OF ALL PUBLIC UTILITIES SHOWN ON THESE PLANS IS TAKEN FROM THE BEST AVAILABLE DATA. THE DOWNTOWN DETROIT PARTNERSHIP AND THE CITY OF DETROIT WILL NOT BE RESPONSIBLE FOR ANY OMISSION OR VARIATION FROM THE LOCATIONS SHOWN. PURSUANT TO ACTS 173 & 174 OF THE P.A. OF 2013, AS A CONDITION OF THIS CONTRACT, NOTICE SHALL BE GIVEN TO MISS DIG PRIOR TO UNDERGROUND WORK TO BE PERFORMED IN ACCORDANCE WITH THIS CONTRACT, PHONE (800) 482-7171 (OR 811). UTILITY SERVICE CONNECTIONS ARE NOT SHOWN ON THE PLANS AND ARE NOT THE RESPONSIBILITY OF THE DETROIT DOWNTOWN PARTNERSHIP OR THE CITY OF DETROIT.

THE ELEVATIONS SHOWN ON THESE PLANS ARE BASED ON THE CITY OF DETROIT'S VERTICAL COORDINATE SYSTEM.

CONTRACT FOR: APPROXIMATELY 150 FT OF STREETSCAPING INCLUDING PARTIAL ROAD RECONSTRUCTION, BRICK SALVAGE & REINSTALLATION, CONCRETE BASE, ASPHALT OVERLAY, UNDERDRAIN, STANDARD & DECORATIVE CONCRETE SIDEWALK, TREE PLANTING WITH SOIL CELLS, AND OTHER PLANTINGS & SITE AMENITIES.



Advancing Communities

1145 Griswold, Suite 200 | Detroit, MI 48226
P (313) 481-1250

PREPARED UNDER THE SUPERVISION OF:



RHETT A. GRONEVELT, PE

6201049808
Registration No.
5/26/2020
Date

REVISIONS

PROJECT NO.	SHEET NO.
7528-19-0010	1 OF 43

WATER & SEWER UTILITY SYMBOLS

- EXISTING**
- ST STORM MANHOLE
 - SQUARE CATCH BASIN
 - ROUND CATCH BASIN
 - == CULVERT
 - ⊕ CULVERT W/O END SECTION
 -) CULVERT W/END SECTION
 - S SANITARY MANHOLE
 - ⊙ CLEAN OUT
 - ⊗ GV GATE VALVE & WELL
 - GATE VALVE & BOX
 - ⊞ W WATER STOP BOX
 - ⊕ FIRE HYDRANT
 - ⊞ MP METER PIT
 - ⊕ WATER METER
 - ⊕ SH SPRINKLER HEAD
 - ⊕ IRRIGATION VALVE

PROPOSED

- STORM MANHOLE
- INLET/CATCH BASIN
-) CULVERT END SECTION
- SANITARY MANHOLE
- ⊗ GV&W GATE VALVE & WELL
- ⊗ GV&B GATE VALVE & BOX
- ⊗ TSV&W TAPPING SLEEVE VALVE & WELL
- ⊗ TSV&B TAPPING SLEEVE VALVE & BOX
- ⊕ FIRE HYDRANT

MISCELLANEOUS UTILITY SYMBOLS

- EXISTING**
- ⋈ GUY WIRE
 - ⊕ GP GUY POLE
 - ⊕ U UTILITY POLE
 - ⊕ W/LIGHT UTILITY POLE W/LIGHT
 - ⊕ LIGHT/DECOR LAMP POLE
 - ⊕ FLOOD LIGHT
 - ⊕ GAS VALVE
 - ⊕ GAS VENT
 - ⊕ G GAS METER
 - ⊕ G GAS RISER
 - ⊕ TRAFFIC SIGNAL
 - ⊕ PEDESTRIAN RISER
 - ⊕ TRANSFORMER PAD
 - ⊕ U PRIVATE UTILITY MANHOLE
 - ⊕ R RAILROAD CROSSING
 - ⊕ E ELECTRIC METER
 - ⊕ PB PHONE BOOTH
 - ⊕ TS TRAFFIC SIGNAL CONTROLLER
 - ⊕ HAND HOLE
 - ⊕ E ELECTRIC RISER
 - ⊕ T TELEPHONE RISER
 - ⊕ C CABLE TV RISER
 - ⊕ W MONITORING WELL
 - ⊕ UNDERGROUND MARKER

MISCELLANEOUS SYMBOLS

- EXISTING**
- RIPRAP
 - ⊕ SIGN
 - FLOW DIRECTION
 - ⊕ STUMP
 - ⊕ WETLAND
 - ⊕ CONIFEROUS TREE } CL 1 1" TO 5"
 - ⊕ DECIDUOUS TREE } CL 2 6" TO 17"
 - ⊕ CONIFEROUS SHRUB } CL 3 18" TO 35"
 - ⊕ DECIDUOUS SHRUB } CL 4 36" AND UP
 - ⊕ SB# SOIL BORING
 - ⊕ SECTION CORNER
 - ⊕ MON MONUMENT
 - IRON ROD/PIPE
 - ⊕ PK PK NAIL
 - ⊕ BM# BENCHMARK
 - ⊕ TP# TRAVERSE POINT
 - ⊕ MAIL/NEWSPAPER BOX
 - ⊕ FP FLAG POLE
 - ⊕ POST

HAZARDOUS OR FLAMMABLE MATERIAL

USED WITH UNDERGROUND GAS & ELECTRICAL LINES

CAUTION - CRITICAL UNDERGROUND UTILITY

USED WITH TELEPHONE & FIBER OPTIC LINES

PROPOSED

- RIPRAP
- ⊕, ⊕, ⊕, ⊕, ⊕, ⊕ SIGN
- FLOW DIRECTION
- ⊕ WM STRUCTURE NUMBER
- ⊕ SAN
- ⊕ STM
- ⊕ ADA SIDEWALK RAMP

UTILITY PATTERN

- EXISTING**
- ELEC --- ELECTRICAL *
 - 6" (COMPANY) GAS --- GAS \ OIL
 - (COMPANY) CABLE/TEL --- CABLE/TELEPHONE *
 - FIBER OPTIC --- FIBER OPTIC *
 - 12" WM --- WATER
 - 12" SAN --- SANITARY
 - 12" STM --- STORM
- PROPOSED**
- 12" --- STORM/SANITARY/WATER
 - 12" --- PRIMARY UTILITY WILL HAVE A CONTINUOUS LINESYLE, WITH THE SECONDARY UTILITY MATCHING ITS RESPECTIVE EXISTING UTILITY LINESYLE
- *OH = OVERHEAD , UG = UNDERGROUND

ROW PATTERN

- EXISTING**
- ROW --- ROW
 - SECTION --- SECTION
 - PROPERTY/PARCEL --- PROPERTY/PARCEL
- PROPOSED**
- ROW --- ROW

TOPO PATTERN

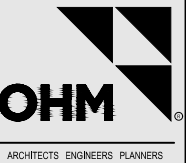
- EXISTING**
- HEDGE/TREE --- HEDGE/TREE
 - FENCE --- FENCE
 - GUARDRAIL --- GUARDRAIL
 - CENTERLINE OF DITCH --- CENTERLINE OF DITCH
 - RAILROAD --- RAILROAD
 - WETLAND/EDGE OF WATER --- WETLAND/EDGE OF WATER
- PROPOSED**
- GRADING LIMIT (SLOPE STAKE) --- GRADING LIMIT (SLOPE STAKE)
 - CENTERLINE OF DITCH --- CENTERLINE OF DITCH
 - GUARDRAIL --- GUARDRAIL
 - FENCE --- FENCE

REMOVAL LEGEND

- ▨ PAVT, REM, MODIFIED & BRICK PAVERS, REM AND SALV
- ▨ HMA SURFACE, REM & BRICK PAVERS, REM AND SALV
- ▨ SIDEWALK, REM
- ⊗ CURB, REM
- ⊗ TREE, REM
- ⊕ SALVAGE
- ⊕ BULKHEAD
- ⊕ ABANDON
- ⊕ CLEARING
- ⊕ REMOVE
- ⊕ REL RELOCATE
- ⊕ REC RECONSTRUCT
- ⊕ REL B/O RELOCATE BY OTHERS
- ⊕ ADJ B/O ADJUST BY OTHERS

SPECIAL LEGEND

- ⊕ SESC MEASURE PER DWSO DETAILS



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Detroit, MI 48226
P (313) 481-1250
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REVISIONS

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DATE: 5/22/20
PROJ NUMBER: 7526-19-010
ENG: AMB
CITY/VILLAGE/TOWNSHIP: DETROIT
COUNTY: WAYNE
CADD: SU
SCALE: 1"=40'
H: 11'-0"
V: 11'-0"
VERT DATUM: MDS
HORIZ DATUM: MDS
DESCRIPTORS: DETROIT

**DOWNTOWN DETROIT PARTNERSHIP IN COOPERATION WITH THE CITY OF DETROIT
FORT STREET AT CAMPUS MARTIUS
LEGEND**

DRAWING PATH: P:\7501_7600\7526-19-010_Campus_Martius_Fort_St_11.dwg May 26, 2020 - 12:34pm

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GENERAL NOTES

UTILITIES

MISS DIG/UNDERGROUND UTILITY NOTIFICATION
FOR THE PROTECTION OF UNDERGROUND UTILITIES AND IN CONFORMANCE WITH PUBLIC ACT 174 OF 2013, THE CONTRACTOR SHALL CONTACT MISS DIG SYSTEM, INC. BY PHONE AT 811 OR 800-482-7171 OR VIA THE WEB AT EITHER ELOCATE.MISSDIG.ORG FOR SINGLE ADDRESS OR RTE.MISSDIG.ORG, A MINIMUM OF 3 BUSINESS DAYS PRIOR TO EXCAVATING, EXCLUDING WEEKENDS AND HOLIDAYS.

THE EXISTING UTILITIES LISTED BELOW AND SHOWN ON THESE PLANS REPRESENT THE BEST INFORMATION AVAILABLE AS OBTAINED ON OUR SURVEYS. THIS INFORMATION DOES NOT RELIEVE THE CONTRACTOR OF THE RESPONSIBILITY TO BE SATISFIED AS TO ITS ACCURACY AND THE LOCATION OF EXISTING UTILITIES.

NAME OF OWNER	TYPE OF UTILITY
CITY OF DETROIT PUBLIC LIGHTING AUTHORITY 65 CADILLAC SQUARE SUITE 3100 DETROIT MI 48226 (313) 324-8290, EXT 216 MOHAMED ABBAS ABBASM@DETROITMI.GOV	STREET LIGHTING & TRAFFIC SIGNALS
CITY OF DETROIT DETROIT WATER & SEWERAGE DEPARTMENT CONTRACT SERVICES FACILITY 6425 HUBER STREET DETROIT MI 48211 GENERAL: (313) 842-4863 FAX: (313) 842-6480	WATER MAIN & SEWERS
CITY OF DETROIT TRAFFIC ENGINEERING, D.P.W. 2633 MICHIGAN AVE DETROIT, MI 48207 GENERAL: (313) 224-1610 FAX: (313)224-1304 PRASAD NANNAPANENI (313) 628-5603 PRASADN@DETROITMI.GOV SUNNY JACOBS (313) 628-5604 SUNJAC@DETROITMI.GOV JUBI CHACKUNKAL (313) 224-1315 JUBCHA@DETROITMI.GOV	PAVEMENT MARKINGS, SIGNS, & TRAFFIC SIGNALS
SIGN SHOP 2425 FENKELL DETROIT MI 48238 WILLIE RILEY (313) 628-2923 FAX (313) 628-4966	SIGN REMOVALS & INSTALLATION
CITY OF DETROIT DETROIT FIRE DEPARTMENT 1301 3RD STREET DETROIT MI 48226 GENERAL: (313) 596-2900 FAX: (313) 224-4128 COMMUNITYRELATIONS@DETROITMI.GOV	KNOX BOXES & FIRE HYDRANTS
CITY OF DETROIT DETROIT POLICE DEPARTMENT 1301 3RD STREET DETROIT, MI 48226 GENERAL: (313) 596-2200 FAX: (313)596-1450 PUBLICINFO@DETROITMI.GOV	POLICE CALL BOXES
DETROIT THERMAL LLC 3575 E PALMER STREET DETROIT MI 48201 ED LAROSA (313) 921-1922 FAX (313) 921-1972	STEAM LINES
GREAT LAKES WATER AUTHORITY 735 RANDOLPH, SUITE 1900 DETROIT MI 48226 TODD KING (313) 799-0289 TODD.KING@GLWATER.ORG	WATER MAIN
DTE ONE ENERGY PLAZA DETROIT MI 48226 GAS LEAK 1-800-947-5000 ELECTRICAL 1-800-477-4747	ELECTRIC & GAS
AT&T 17651 MICHIGAN AVE DEARBORN MI 48126 JOE RACZAK LEGAL MANDATE ENGINEER (313) 240-5314 JR1983@ATT.COM OR MARK BRAHAM OSP ENGINEER - METRO SOUTH (313) 240-5390 MB6352@ATT.COM	TELEPHONE FOR ADJUSTING FRAMES & COVERS

UTILITIES CONT'D

NAME OF OWNER	TYPE OF UTILITY
COMCAST 25626 TELEGRAPH SOUTHFIELD MI 48034 CRAIG PUDAS (419) 874-9262, EXT 144 CRAIG_PUDAS@CABLE.COMCAST.NET	CABLE & FIBER OPTIC
ROCKET FIBER 1505 WOODWARD AVE DETROIT MI 48226 SCOTT CERNY (989) 277-3149 SCOTTCERNY@ROCKETFIBER.COM	FIBER OPTIC
LEVEL 3 1025 ELDORADO BLVD BLOOMFIELD CO 80021 JUDY HENRY (720) 888-2061 JUDY.HENRY@CENTURYLINK.COM	FIBER OPTIC
ZAYO FIBER 240 E SOUTH ST/FL-1/RM-POD 3 LANSING MI 48910 GREG BABINSKI (616) 570-9900 GREG.BABINSKI@ZAYO.COM	FIBER OPTIC

ROW/REAL ESTATE

PROPERTY OWNERS
THE NAMES OF PROPERTY OWNERS SHOWN ON THE PLANS ARE FOR INFORMATION ONLY, AND THEIR ACCURACY IS NOT GUARANTEED.

MARKETABLE TIMBER
MARKETABLE TIMBER SHALL BE HANDLED IN ACCORDANCE WITH SECTION 201.03 OF THE 2012 STANDARD SPECIFICATIONS FOR CONSTRUCTION.

SURVEY

ADJUSTING MONUMENT BOXES
ALL GOVERNMENT CORNERS ON THIS PROJECT SHALL BE PRESERVED, WHETHER SHOWN OR NOT. IT MAY BE NECESSARY TO PLACE OR ADJUST MONUMENT BOXES, AS REQUIRED.

DETAILED GRADES

GRADES FOR INTERSECTIONS
ALL INTERSECTIONS ARE TO BE CONSIDERED AS COMPLETE UNITS AND THEIR GRADES DETERMINED BEFORE CONSTRUCTION IS STARTED.

SIDEWALK AND SIDEWALK RAMP GRADES
ALL SIDEWALK AND SIDEWALK RAMP GRADES SHALL BE STAKED ACCORDING TO MDOT STANDARD PLAN R-28-1 AS MODIFIED BY THE CITY OF DETROIT AND AS SHOWN ON THE PLANS. PRIOR TO CONSTRUCTING THE SIDEWALK AND SIDEWALK RAMPS, THE ENGINEER WILL VERIFY THE GRADES AND AUTHORIZE THE CONSTRUCTION OF THE SIDEWALK AND SIDEWALK RAMPS.

EARTHWORK

EMBANKMENT
ALL EMBANKMENT SHALL BE MDOT CLASS II GRANULAR MATERIAL UNLESS OTHERWISE SPECIFIED ON THE PLAN OR DIRECTED BY THE ENGINEER.

EARTHWORK CALCULATIONS
EARTHWORK QUANTITIES ARE COMPUTED BY THE AVERAGE END AREA METHOD BASED UPON GROUND SURVEY INFORMATION.

EARTH DISTURBANCE LIMITS
THE EARTH DISTURBANCE LIMIT FOR THIS PROJECT WILL BE LIMITED TO THE FACE OF BUILDINGS AND THE OUTSIDE LIMITS OF WORK AS SHOWN AT INTERSECTIONS AND SIDEWALKS. THE CONTRACTOR SHALL SUBMIT AN EARTH CHANGE PLAN FOR ANY WORK BEYOND THE APPROVED LIMITS TO THE ENGINEER TO REVIEW FOR APPROVAL PRIOR TO THE DISTURBANCE. ALL COSTS FOR OBTAINING AND EXECUTING AN APPROVED EARTH CHANGE PLAN, INCLUDING RESTORATION, SHALL BE AT THE CONTRACTOR'S EXPENSE.

SOIL EROSION MEASURES
APPROPRIATE SOIL EROSION AND SEDIMENTATION CONTROL MEASURES SHALL BE IN PLACE PRIOR TO EARTH-DISTURBING ACTIVITIES. PLACE TURF ESTABLISHMENT ITEMS AS SOON AS POSSIBLE ON POTENTIAL ERODABLE SLOPES AS DIRECTED BY THE ENGINEER.

SUBGRADE UNDERCUTTING
SUBGRADE UNDERCUTTING SHALL ONLY BE PERFORMED AS DIRECTED BY THE ENGINEER AND ALL UNDERCUTTING MATERIAL SHALL BE MDOT CLASS II GRANULAR MATERIAL OR AS DIRECTED BY THE ENGINEER.

SOIL EROSION AND SEDIMENTATION CONTROL

SOIL EROSION AND SEDIMENTATION CONTROL MEASURES
MEASURES MUST BE TAKEN TO FOLLOW THE DETROIT WATER AND SEWERAGE DEPARTMENT'S (DWS) STANDARD DETAILS FOR SOIL EROSION AND SEDIMENTATION CONTROL MEASURES.

THE PAY ITEM "EROSION CONTROL, INLET PROTECTION, FABRIC DROP" MUST FOLLOW DWS'S DETAIL FOR INLET PROTECTION FABRIC DROP AND IS REFERRED TO AS SOIL EROSION MEASURE 26 ON THE PLANS.

ALL SOIL EROSION MEASURES MUST BE IN PLACE BEFORE DEMOLITION OPERATIONS ARE TO BEGIN.

BASES

AGGREGATE BASE
AGGREGATE BASES SHALL USE AGGREGATE 21AA, UNLESS OTHERWISE SPECIFIED.

DRAINAGE

PROPOSED STORM SEWER
PROPOSED STORM SEWER IS DESIGNED WITH A 3' MINIMUM COVER MEASURED FROM THE TOP OF PIPE TO THE PROPOSED RIM ELEVATION OF EACH STRUCTURE. UNLESS OTHERWISE SHOWN ON THE PLAN, ALL STORM SEWER IS DESIGNED TO MAINTAIN POSITIVE DRAINAGE AT 0.5%. STORM SEWER MAY NEED TO BE RAISED OR LOWERED AS DIRECTED BY THE ENGINEER DUE TO UTILITY CONFLICTS OR A HIGHER THAN EXPECTED OUTLET AT THE TAPPING STRUCTURE. IF MODIFICATIONS ARE MADE TO THE PROPOSED INVERTS ON PLAN, THE PROPOSED SEWER MUST MAINTAIN POSITIVE DRAINAGE AT A MINIMUM OF 0.5% OR AS DIRECTED BY THE ENGINEER.

IT IS THE CONTRACTOR'S RESPONSIBILITY TO EXCAVATE TEST HOLES IN ORDER TO EXPOSE EXISTING PUBLIC WATER MAIN, SANITARY SEWER, SEWER LEADS, WATER SERVICES, OR ANY OTHER BURIED UTILITY LINES, AND DETERMINE IF THERE WILL BE POSSIBLE CONSTRUCTION CONFLICTS BETWEEN EXISTING AND PROPOSED UTILITIES. LOCATIONS OF EXPECTED CROSSINGS ARE NOTED ON THE PLANS. THE CONTRACTOR SHALL PERFORM TEST HOLES AT THESE LOCATIONS PRIOR TO THE START OF UNDERGROUND SEWER WORK AND NOTIFY THE ENGINEER IF A CONFLICT EXISTS.

ILLEGAL CONNECTIONS TO STORM WATER SYSTEM
CONNECTIONS TO EXISTING STORM CONVEYANCE SYSTEMS NOT SHOWN ON THE PLANS MUST BE RECONNECTED WITH MINIMAL INTERRUPTION IN SERVICE. SIZE, TYPE AND LOCATION BY STATION AND OFFSET AND ANY SUSPECT ILLEGAL DISCHARGE OBSERVED SHALL BE REPORTED TO THE ENGINEER PRIOR TO RECONNECTING. CONTRACTOR SHALL PROCEED AS DIRECTED BY THE ENGINEER.

TEMPORARY BULKHEADS
TEMPORARY BULKHEADS MAY BE REQUIRED FOR THE PART WIDTH CONSTRUCTION OF THE CULVERTS AND SEWERS. ALL COST ASSOCIATED WITH THE TEMPORARY BULKHEADS ARE INCLUDED IN THE ITEM OF THE PIPE.

PAVEMENT

PAVEMENT AND HMA SURFACE REMOVAL QUANTITIES
PAVEMENT AND HMA SURFACE REMOVAL AS SHOWN ON THE PLANS WILL BE AT THE DISCRETION OF THE ENGINEER. IF IN HIS/HER JUDGMENT, AREAS OF PAVEMENT MAY BE LEFT IN PLACE, OR ADDITIONAL AREAS ADDED TO PROVIDE THE PROPER CROSS-SECTION AND BASE. CHANGES WILL BE MADE IN THE QUANTITIES.

CONCRETE HAND FINISHING
HAND FINISHING OF CONCRETE POURS TO BE STRUCK OFF AND CONSOLIDATED BY HAND METHODS WILL BE PERMITTED ON VARIABLE WIDTH LANES AND LANES FORMED BY FLEXIBLE FORMS FOR SHORT RADIUS CURVES, AS DIRECTED BY THE ENGINEER.

CONCRETE
THE TYPE OF CONCRETE TO BE USED ON THIS PROJECT FOR THE PAVEMENT REPAIRS IS TYPE P1.

SIGNS

GENERAL
ALL SIGNS SHALL BE INSTALLED, REMOVED AND/OR SALVAGED ACCORDING TO THE CURRENT EDITION OF "MICHIGAN MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES" AND THE CURRENT EDITION OF MICHIGAN DEPARTMENT OF TRANSPORTATION (MDOT) "STANDARD SPECIFICATIONS FOR CONSTRUCTION."

ALL SIGNS ON THE PLANS OR IN THE LOG THAT DO NOT HAVE A RECOMMENDATION ARE TO BE RETAINED.

EXISTING SIGN RELOCATION
ANY PERMANENT SIGNS REQUIRING RELOCATION DUE TO CONTRACTOR OPERATIONS SHALL BE SALVAGED AND RESET BY THE CONTRACTOR AT LOCATIONS DESIGNATED BY THE ENGINEER. SIGNS AND POSTS DAMAGED DURING THE REMOVAL AND STORAGE OPERATIONS SHALL BE REPLACED WITH NEW SIGNS AND POSTS. THE COST OF THIS WORK SHALL BE BORNE BY THE CONTRACTOR.

PLAN SCALE
THE FINAL PLANS SUBMITTED WITH THE PROPOSAL ARE NOT TO SCALE. WHERE PROPOSED ON PLAN SHEETS, THE SIGNS AND STRUCTURES SHALL BE FABRICATED IN ACCORDANCE TO TYPICAL PLANS, STANDARDS, AND/OR DETAILS AT LOCATIONS DESCRIBED.

SIGN LAYOUT
SIGN LAYOUTS SHALL BE ACCORDING TO THE CURRENT ENGLISH EDITION OF "STANDARD HIGHWAY SIGNS" MANUAL OR AS DETAILED IN PLANS. LEGEND LENGTH SHALL BE DETERMINED USING THE "SIGNCAD" SOFTWARE.

SHEETING
HANDLING AND INSTALLATION OF ALL SIGNS SHALL CONFORM TO THE SHEETING MANUFACTURER'S SPECIFICATIONS AND GUIDELINES.

SPLICE SHEETING USED FOR TYPE I SIGNS WITH A 3" OVERLAP.
SIGNS THAT HAVE WRINKLED OR TWISTED SHEETING MAY BE REJECTED.

SIGN INSTALLATION
WHEN ATTACHING SIGNS TO SUPPORTS, TIGHTEN THE NUT, NOT THE BOLT HEAD.

NYLON WASHERS SHALL BE PLACED BETWEEN THE STEEL WASHER AND THE SIGN FACE SHEETING. THE NYLON WASHERS ARE TO BE CONSIDERED PART OF THE ATTACHING DEVICES AND HARDWARE. NYLON WASHERS SHALL HAVE A 3/8 INCH INNER DIAMETER, A 7/8 INCH OUTER DIAMETER AND A 1/16 INCH THICKNESS.

THE CONTRACTOR SHALL ATTACH A DATE STICKER TO THE BACK OF ALL SIGNS INSTALLED ON THE CONTRACT. STICKERS WILL BE SUPPLIED TO THE CONTRACTOR AT THE PRECONSTRUCTION MEETING BY THE ENGINEER. STICKERS WILL BE SUPPLIED BY MDOT OPERATIONS FIELD SERVICES DIVISION STATEWIDE SIGN SHOP, LANSING, WHICH CAN BE CONTACTED AT 517-322-3357.

MISCELLANEOUS

AUDIO-VISUAL FILMING
AN AUDIO-VISUAL FILMING OF THE PROJECT CONDITIONS AS DESCRIBED IN THE UNIQUE SPECIAL PROVISION MUST BE COMPLETED BEFORE AND AFTER CONSTRUCTION.

SITE SAFETY
COORDINATION WITH THE ENGINEER ON APPROPRIATE SAFETY AND TRAFFIC CONTROL MEASURES DURING SPECIAL EVENTS WHEN HIGH VOLUMES OF PEDESTRIAN AND VEHICULAR TRAFFIC ARE EXPECTED MUST BE DONE IN ACCORDANCE WITH THE SPECIAL PROVISION FOR MAINTAINING TRAFFIC.

SURVEY INFORMATION

NOTES

COORDINATE SYSTEM: STATE PLANE GRID
ZONE: MICHIGAN SOUTH 2113
ELLIPSOID: GRS 80
HORIZONTAL DATUM: NAD 83 (2011)
VERTICAL DATUM: CITY OF DETROIT
GEOID: NA
UNITS: INTERNATIONAL FEET

INTERMEDIATE CONTROL

CONTROL PT #: 100
DESCRIPTION: SET MAG NAIL IN TOP OF GRANITE WALL EAST SIDE WOODWARD SB @ FORT ST
COORDINATES: N = 305683.9100 , E = 13480215.1600
ELEV = 122.823
WITNESSES: 1. WEST 0.5' BACK OF WALL
2. EAST 10' BACK OF STONE CURB
3. NORTH 25' LIGHT POLE BASE

CONTROL PT #: 101
DESCRIPTION: FD MAG NAIL AERIAL CONTROL AT PRC SOUTH CURB FORT ST INTO WOODWARD
COORDINATES: N = 305610.9416 , E = 13480171.2144
ELEV = 121.896
WITNESSES: 1. SE 2' BACK OF CURB
2. NW 1' BACK OF SPLASH WALK
3. WEST 21' SIGN

BENCHMARKS

BENCHMARK #: 200
DESCRIPTION: CHISELED "+" ON NORTH BOLT OF LIGHT POLE BASE AT THE NORTHEAST CORNER OF THE CHASE TOWER BUILDING
ELEVATION: 121.215
BENCHMARK #: 201
DESCRIPTION: CHISELED "+" ON NORTH BOLT OF LIGHT POLE BASE AT NORTHEASTERLY QUADRANT OF FORT AND GRISWOLD
ELEVATION: 123.440

MISCELLANEOUS QUANTITIES

THE FOLLOWING ARE LUMP SUM AND MISCELLANEOUS QUANTITIES TO BE USED AS NEEDED AND ONLY AS DIRECTED BY THE ENGINEER.

QUANTITIES THIS SHEET	TOTAL	UNIT	DESCRIPTION
	1	LSUM	_Audio-Visual Filming
	1	LSUM	_Mobilization, Max
	50	Cyd	_Non Haz Contaminated Material Handling and Disposal, LM
	25	Cyd	_Subgrade Undercutting, Type II
	8	Ea	_Exploratory Excavation
	5	Ea	_Erosion Control, Inlet Protection, Fabric Drop
	1	LSUM	_Pavt, Cleaning
	1	LSUM	_Monitoring Vibrations
	2	Ea	_Water Shutoff, Adj, Case 1, Modified
	1958	Dir	_MoGo Materials

DRAWING PATH: P:\7501_7600\7628\90010_Campus_Martius_Font_Sign_Drawings\Civil\Misc\190010\LEG_NOT.dwg May 26, 2020 - 12:34pm

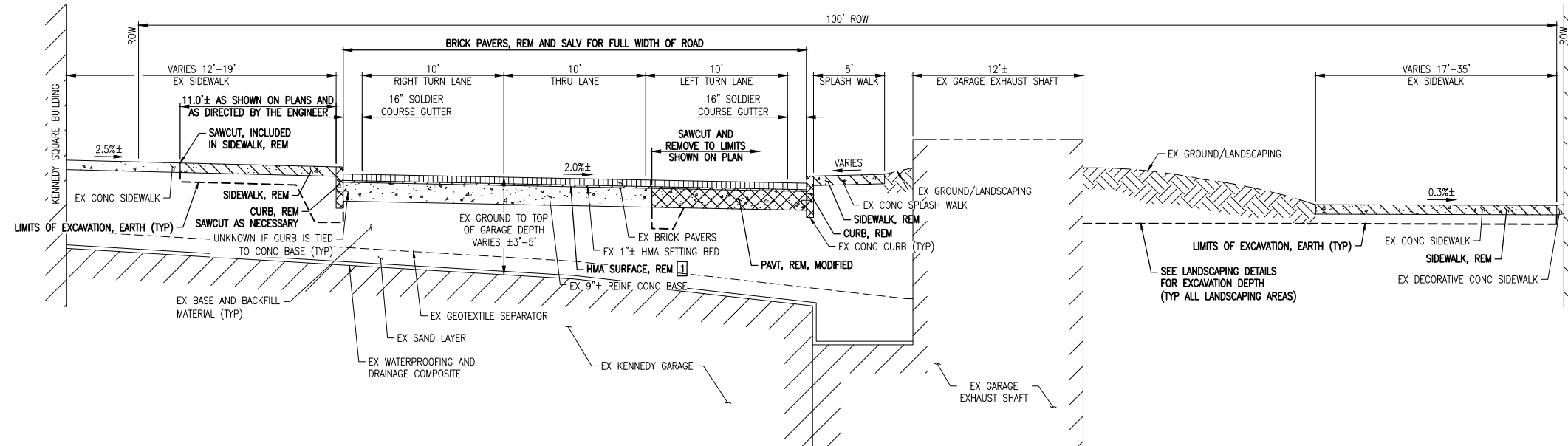


REVISIONS
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DATE: 5/22/20 DATE: 5/22/20
PROJ NUMBER: 7528-19010 PROJ NUMBER: 7528-19010
ENG: AMB ENG: AMB
CITY/VILLAGE/TOWNSHIP: DETROIT CITY/VILLAGE/TOWNSHIP: DETROIT
COUNTY: WAYNE COUNTY: WAYNE
SCALE: 1"=40' SCALE: 1"=40'
H: 13'-0" H: 13'-0"
V: 1"=4' V: 1"=4'
NORTH DATUM: MDS NORTH DATUM: MDS
VERT DATUM: DETROIT VERT DATUM: DETROIT

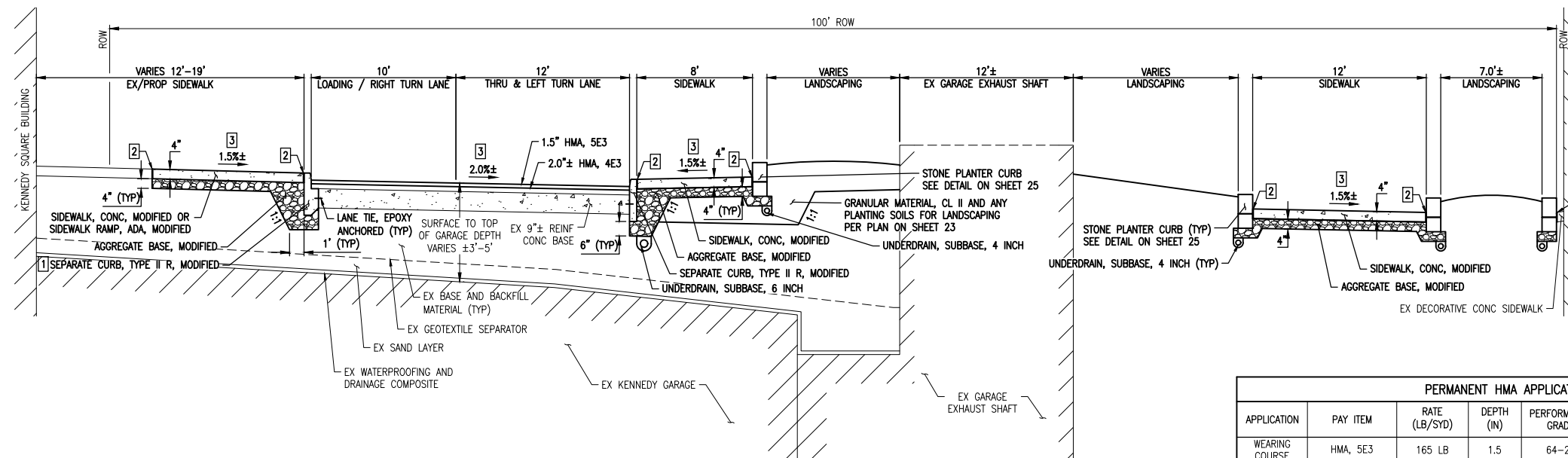
DOWNTOWN DETROIT PARTNERSHIP IN COOPERATION WITH THE CITY OF DETROIT
FORT STREET AT CAMPUS MARTIUS
GENERAL NOTES AND SURVEY INFORMATION

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**EXISTING TYPICAL CROSS SECTION
SECTION A-A**

1] HMA SURFACE, REM PAID SEPARATELY WHEN THE CONCRETE BASE IS TO REMAIN IN PLACE. WHEN UNDERLYING CONCRETE BASE IS TO BE REMOVED, THE REMOVAL OF THE HMA SETTING BED IS TO BE INCLUDED IN PAVT, REM, MODIFIED



**PROPOSED TYPICAL CROSS SECTION
SECTION A-A**

1] ADDITIONAL CONCRETE NEEDED TO ACHIEVE PROPOSED ALIGNMENT TO BE CAST INTEGRAL WITH THE CURB. THE ADDITIONAL CONCRETE WILL BE PAID AS CONC BASE CSE, NONREINF, 8 INCH
2] 1/2\"/>

PERMANENT HMA APPLICATION CHART					
APPLICATION	PAY ITEM	RATE (LB/SYD)	DEPTH (IN)	PERFORMANCE GRADE	REMARKS
WEARING COURSE	HMA, 5E3	165 LB	1.5	64-28	TOP COURSE, AWI = 260 MINIMUM
LEVELING COURSE	HMA, 4E3	220-275 LB	2.0-2.5	64-28	LEVELING COURSE (2.5\"/>

*BOND COAT - 0.05-0.15 GAL/SYD
*FOR INFORMATION ONLY

REVISIONS

NO. DATE

BY

DATE

SCALE

CITY/VILLAGE/TOWNSHIP

COUNTY

CAD

PROJ. NO.

ENG

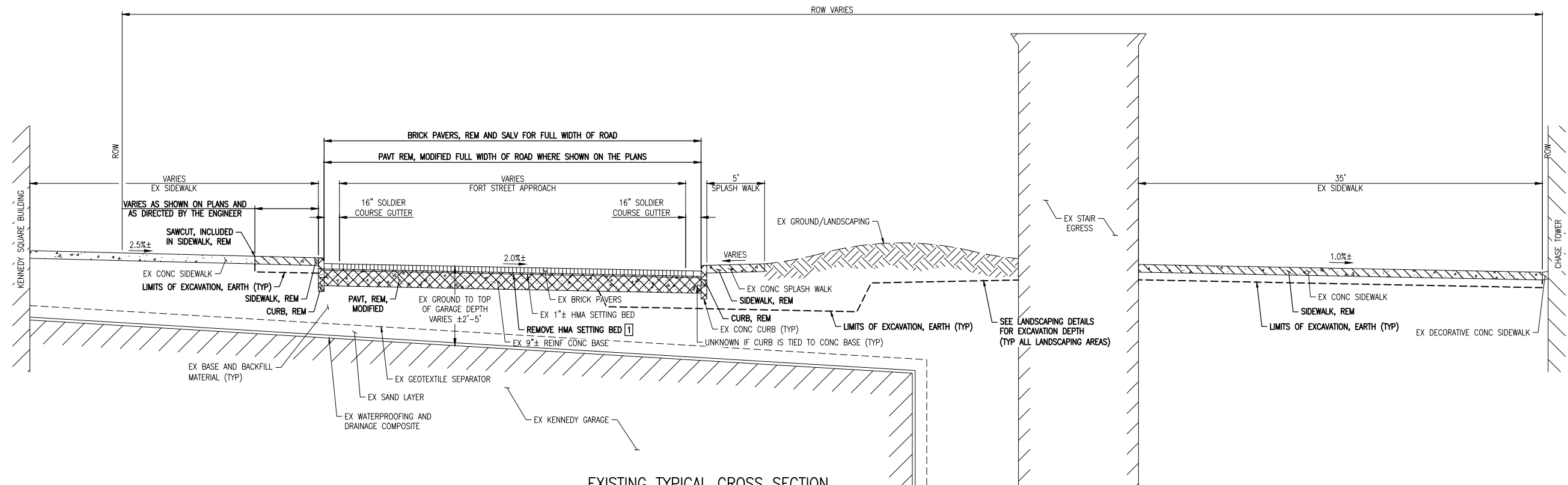
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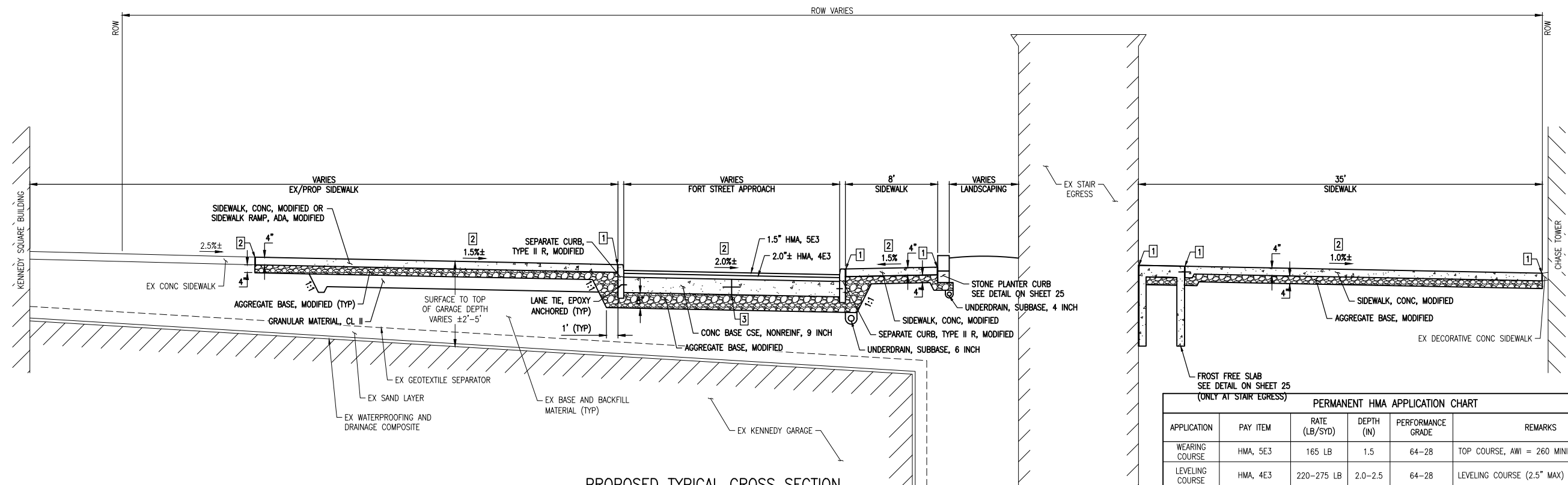
OF 43

DOWNTOWN DETROIT PARTNERSHIP IN COOPERATION WITH THE CITY OF DETROIT
FORT STREET AT CAMPUS MARTIUS
TYPICAL CROSS SECTIONS



EXISTING TYPICAL CROSS SECTION SECTION B-B

1 WHEN UNDERLYING CONCRETE BASE IS TO BE REMOVED, THE REMOVAL OF THE HMA SETTING BED IS TO BE INCLUDED IN PAVT, REM, MODIFIED



PROPOSED TYPICAL CROSS SECTION SECTION B-B

- 1 ½" SEALED EXPANSION JOINT INCLUDED IN ADJACENT SIDEWALK PAY ITEM
- 2 SEE DETAIL GRADING, SLOPES SHOWN ARE TYPICAL AND DETAIL GRADING SHALL GOVERN
- 3 JOINTING FOR THE CONCRETE BASE SHALL BE ACCORDING TO THE CONTRACTOR'S LAYOUT AS APPROVED BY THE ENGINEER

PERMANENT HMA APPLICATION CHART					
APPLICATION	PAY ITEM	RATE (LB/SYD)	DEPTH (IN)	PERFORMANCE GRADE	REMARKS
WEARING COURSE	HMA, 5E3	165 LB	1.5	64-28	TOP COURSE, AWI = 260 MINIMUM
LEVELING COURSE	HMA, 4E3	220-275 LB	2.0-2.5	64-28	LEVELING COURSE (2.5" MAX)
PAVER SETTING BED	SALVAGED PAVER, REINSTALL	110 LB	1.0	-	SEE SPECIAL PROVISION
HAND PATCHING	HAND PATCHING	220 LB	2.0	64-28	HAND PATCHING AS DIRECTED BY THE ENGINEER - HMA 5E3 (2" MAX PER LIFT)

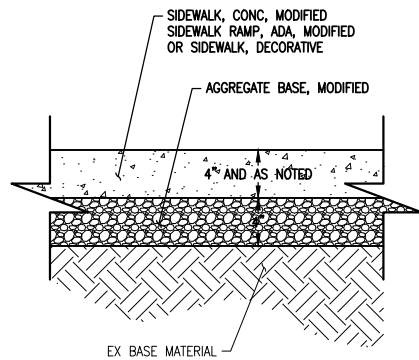
*BOND COAT - 0.05-0.15 GAL/SYD
*FOR INFORMATION ONLY

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DOWNTOWN DETROIT PARTNERSHIP IN COOPERATION WITH THE CITY OF DETROIT
FORT STREET AT CAMPUS MARTIUS
TYPICAL CROSS SECTIONS
5 OF 43

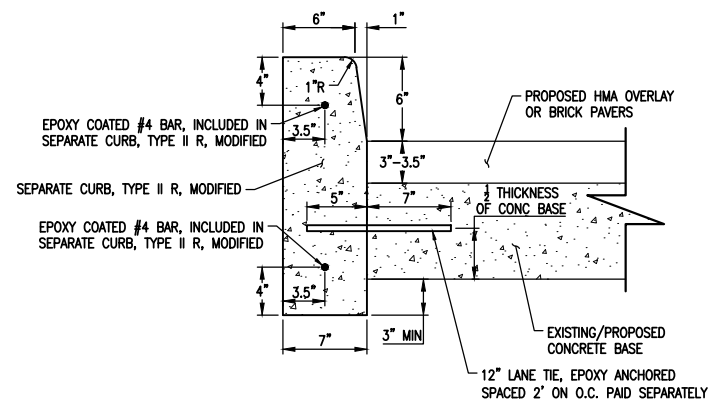
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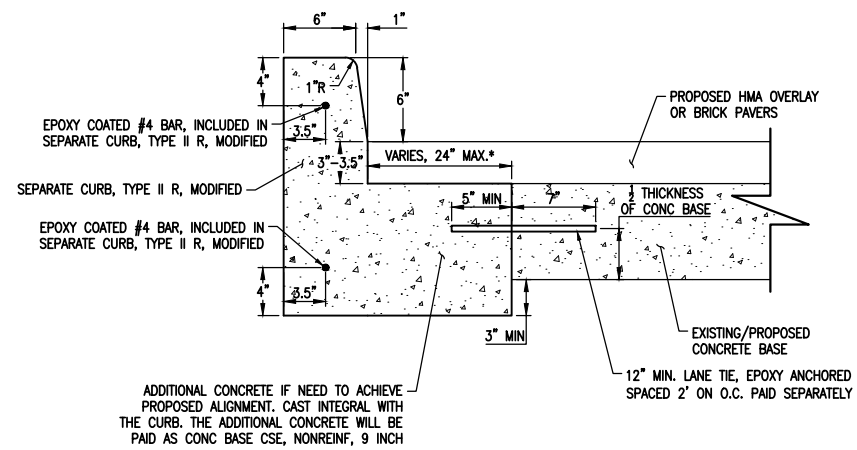
PROPOSED SIDEWALK SECTION

NOTES:

- INCLUDE $\frac{1}{8}$ " SEALED EXPANSION JOINT WHERE BUTTING UP AGAINST EXISTING/PROPOSED CURB, EXISTING SIDEWALK, BUILDING FACES, AND AS DIRECTED BY THE ENGINEER, INCLUDED IN THE COST OF THE SIDEWALK PAY ITEM
- SIDEWALK TO BE 4 INCHES EXCEPT AS NOTED IN THE SPECIAL PROVISION AND AS DIRECTED BY THE ENGINEER

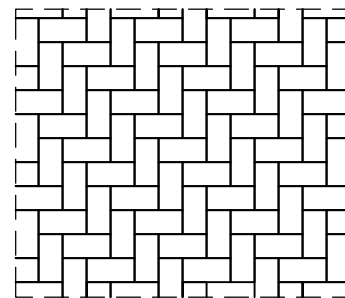


SEPARATE CURB, TYPE II R, MODIFIED



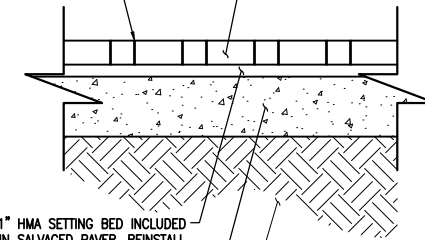
SEPARATE CURB, WITH INTEGRAL CONCRETE BASE

*NOTE: IF THE ADDITIONAL WIDTH OF CONCRETE BASE REQUIRED IS OVER 24", THE CONCRETE SHALL BE POURED SEPARATELY FROM THE CURB AND TREATED AS A PROPOSED CONCRETE BASE

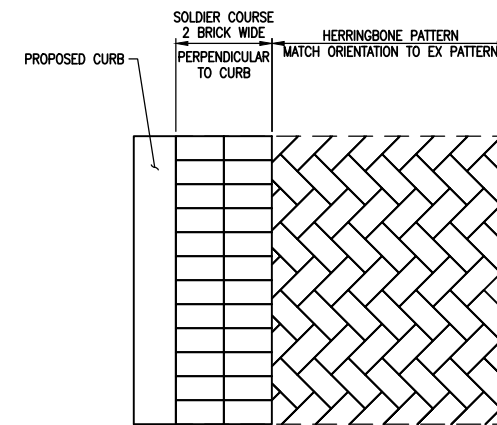


HERRINGBONE PATTERN

UNIFORM $\frac{1}{8}$ " TO $\frac{1}{4}$ " JOINTS BETWEEN PAVERS FILLED WITH JOINT FILLER AS DESCRIBED IN THE SPECIAL PROVISION FOR SALVAGED PAVES, REINSTALL

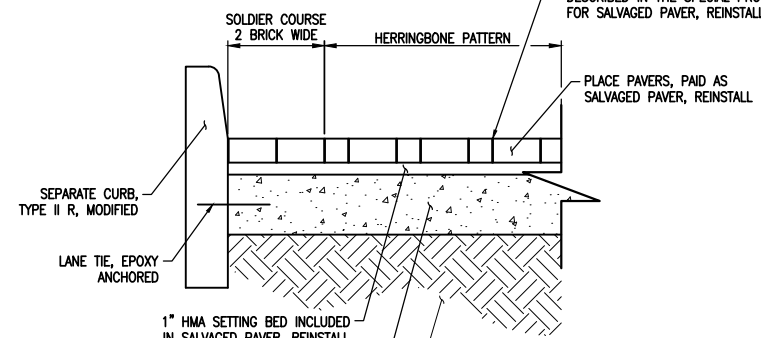


PROPOSED BRICK PAVER SECTION



HERRINGBONE PATTERN WITH SOLDIER COURSE

UNIFORM $\frac{1}{8}$ " TO $\frac{1}{4}$ " JOINTS BETWEEN PAVERS FILLED WITH JOINT FILLER AS DESCRIBED IN THE SPECIAL PROVISION FOR SALVAGED PAVES, REINSTALL



PROPOSED BRICK PAVER SECTION

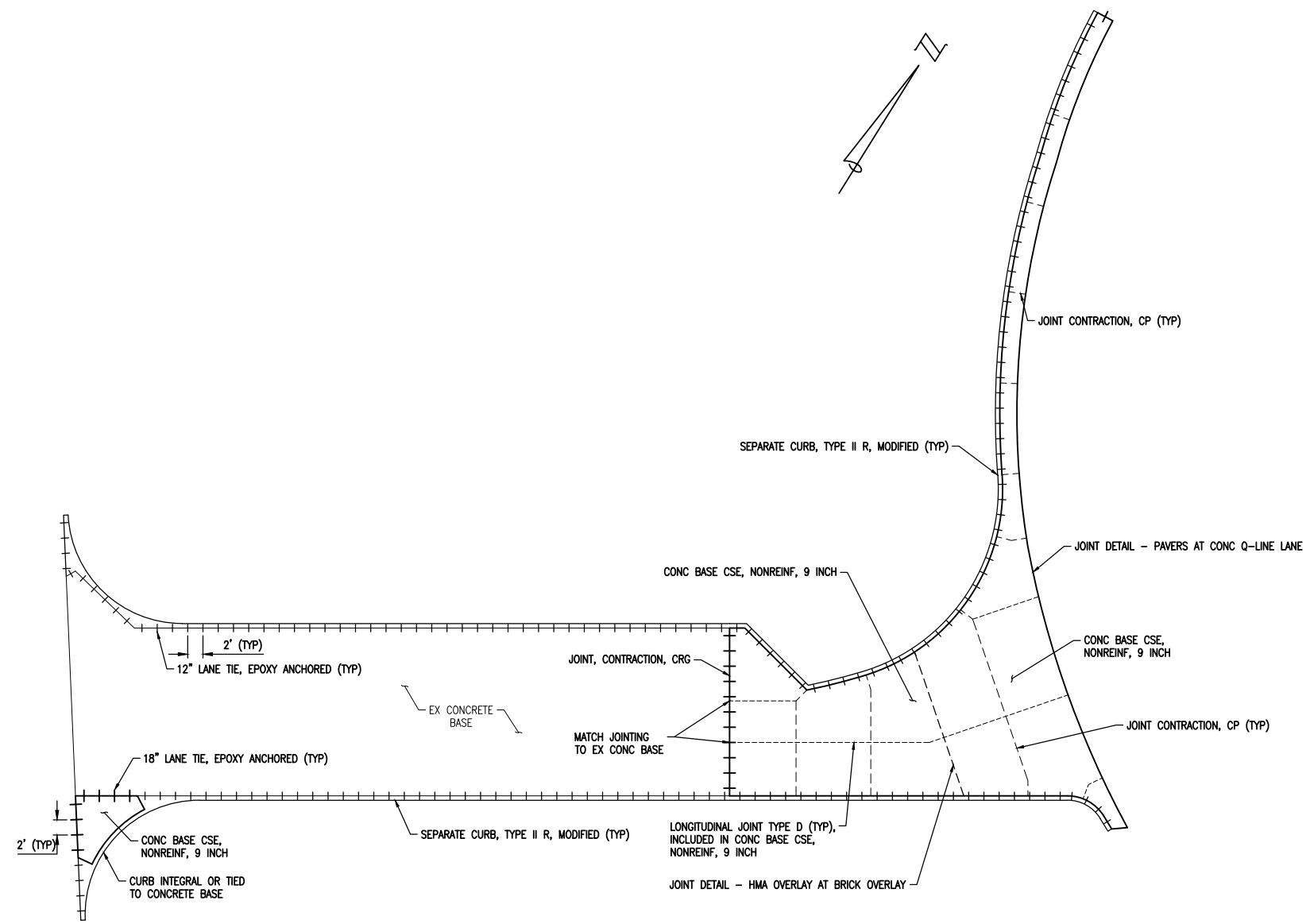
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DATE	PROJ NUMBER	ENG	PROJ LEAD	CADD	COUNTY	CITY/VILLAGE/TOWNSHIP	SCALE	VERT DATUM	DET/DTICS
5/22/20	7526-19-010	AMB	BAO	SM	WAYNE	DETROIT	1"=4'		

**DOWNTOWN DETROIT PARTNERSHIP IN COOPERATION WITH THE CITY OF DETROIT
FORT STREET AT CAMPUS MARTIUS
MISCELLANEOUS DETAILS**

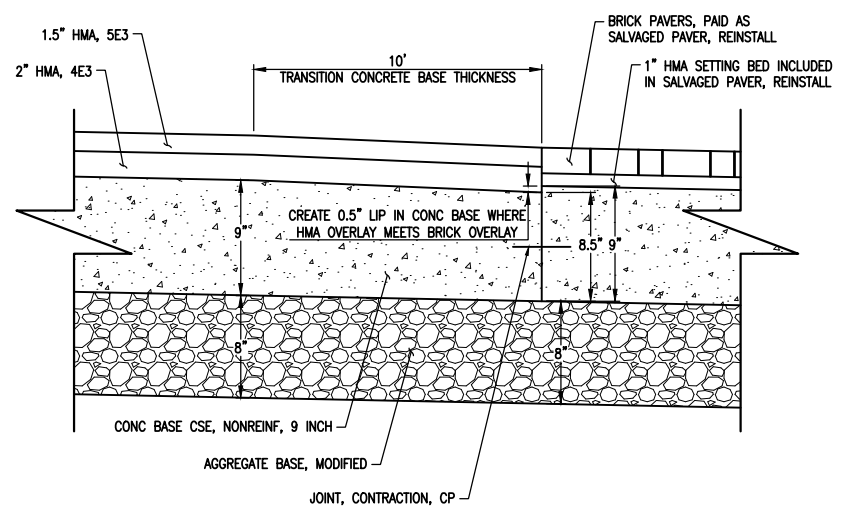
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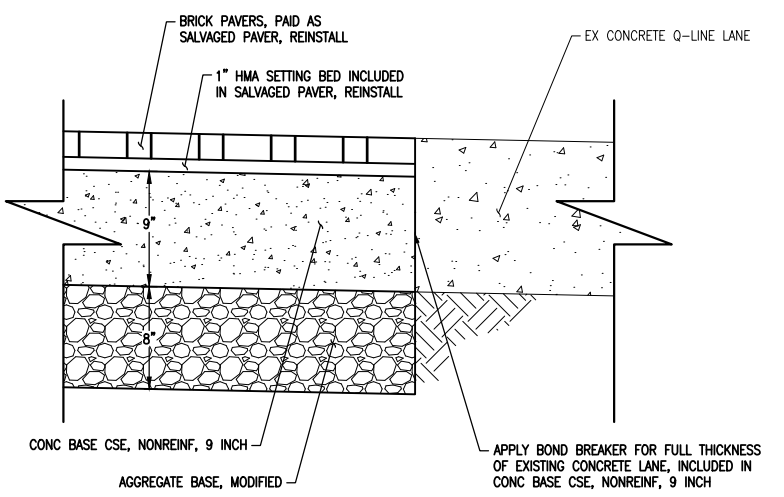


CONCRETE BASE JOINTING DETAIL

NOTE: JOINTING SCHEME SHOWN IS EXAMPLE ONLY
 JOINTING FOR CONCRETE BASE SHALL BE ACCORDING TO THE
 CONTRACTOR'S LAYOUT AS APPROVED BY THE ENGINEER AND IS
 INCLUDED CONC BASE CSE, NONREINF, 9 INCH



JOINT DETAIL - HMA OVERLAY AT BRICK OVERLAY



JOINT DETAIL - PAVERS AT CONC Q-LINE LANE

DRAWING PATH: P:\7501_7600\7628\90010_Campus_Martius_Fort_St_Xing\Drawings\Civil\Details\90010DET.dwg May 26, 2020 - 12:34pm

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DATE: 5/22/20 PROJ NUMBER: 7528-10000 ENG: AMB PROJ LDR: RAG CAD: SM COUNTY: WAYNE CITY/VILLAGE/TOWNSHIP: DETROIT SCALE: 1/4"=1'-0" H: 1/4"=1'-0" V: 1/4"=1'-0" MORE DATUM: ANDS VERT DATUM: DETROITICS

DOWNTOWN DETROIT PARTNERSHIP IN COOPERATION WITH THE CITY OF DETROIT
 FORT STREET AT CAMPUS MARTIUS
 MISCELLANEOUS DETAILS

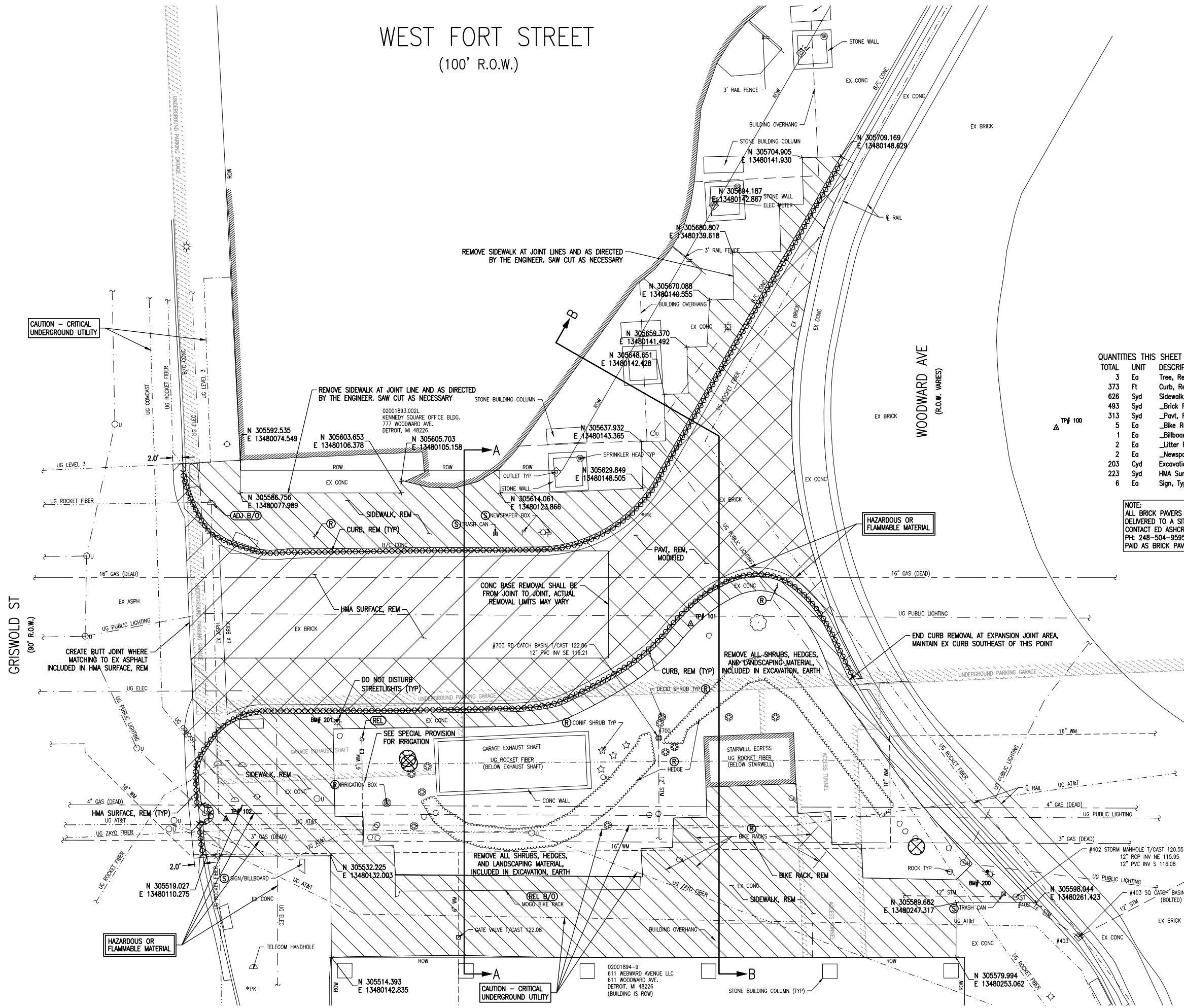
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JOB BENCHMARK #200 CHISELED "4" ON W BOLT L.P. BSE AT THE NE COR OF THE CHASE TOWER BLDG ELEV 121.215
JOB BENCHMARK #201 CHISELED "4" ON NW BOLT L.P. BSE AT NE/QUAD OF FORT & GRISWOLD ELEV 123.440
TRAVERSE POINT #100 N 305683.91 E 13480215.16 ELEV 122.82
TRAVERSE POINT #101 N 305610.94 E 13480171.21 ELEV 121.90
TRAVERSE POINT #102 N 305527.72 E 13480109.73 ELEV 122.95

WEST FORT STREET (100' R.O.W.)



OHM
ARCHITECTS ENGINEERS PLANNERS
1145 Griswold, Suite 200
Detroit, MI 48226
P (313) 481-1250
OHM-ADVISORS.COM



QUANTITIES THIS SHEET

TOTAL	UNIT	DESCRIPTION
3	Ea	Tree, Rem, 6 inch to 18 inch
373	Ft	Curb, Rem
626	Syd	Sidewalk, Rem
493	Syd	Brick Pavers, Rem and Salv
313	Syd	Pavt, Rem, Modified
5	Ea	Bike Rack, Rem
1	Ea	Billboard, Rem and Salv
2	Ea	Litter Receptacle, Rem, Salv and Reinstall
2	Ea	Newspaper Box, Rem, Salv and Reinstall
203	Cyd	Excavation, Earth
223	Syd	HMA Surface, Rem
6	Ea	Sign, Type III, Rem

NOTE:
ALL BRICK PAVERS TO BE SALVAGED AND DELIVERED TO A SITE WITHIN CITY LIMITS CONTACT ED ASHCRAFT FOR COORDINATION PH: 248-504-9595 PAID AS BRICK PAVERS, REM AND SALV



DRAWING PATH: P:\7501_7600\7628\9010_Campus_Martius_Fort_St_3rd\Drawings\Civil\Removal\9010PREM.dwg May 26, 2020 - 12:34pm

REVISIONS	NO.	DATE	DESCRIPTION

CITY/VILLAGE/TOWNSHIP: DETROIT
COUNTY: WAYNE
SCALE: 1"=10'-0"
DATE: 5/22/20
PROJECT NUMBER: 7528-19-010-AMB
PROJ. NO.: 7528-19-010-AMB
CADD: SM
CAD: SM
CITY/VILLAGE/TOWNSHIP: DETROIT
COUNTY: WAYNE
SCALE: 1"=10'-0"
DATE: 5/22/20
PROJECT NUMBER: 7528-19-010-AMB
PROJ. NO.: 7528-19-010-AMB
CADD: SM
CAD: SM

DOWNTOWN DETROIT PARTNERSHIP IN COOPERATION WITH THE CITY OF DETROIT
FORT STREET AT CAMPUS MARTIUS
REMOVAL PLAN

SHEET 9 OF 43

JOB BENCHMARK #200 CHISELED "4" ON W BOLT L.P. BSE AT THE NE COR OF THE CHASE TOWER BLDG ELEV 121.215
JOB BENCHMARK #201 CHISELED "4" ON NW BOLT L.P. BSE AT NE/QUAD OF FORT & GRISWOLD ELEV 123.440
TRAVERSE POINT #100 N 305683.91 E 13480215.16 ELEV 122.82
TRAVERSE POINT #101 N 305610.94 E 13480171.21 ELEV 121.90
TRAVERSE POINT #102 N 305527.72 E 13480109.73 ELEV 122.95

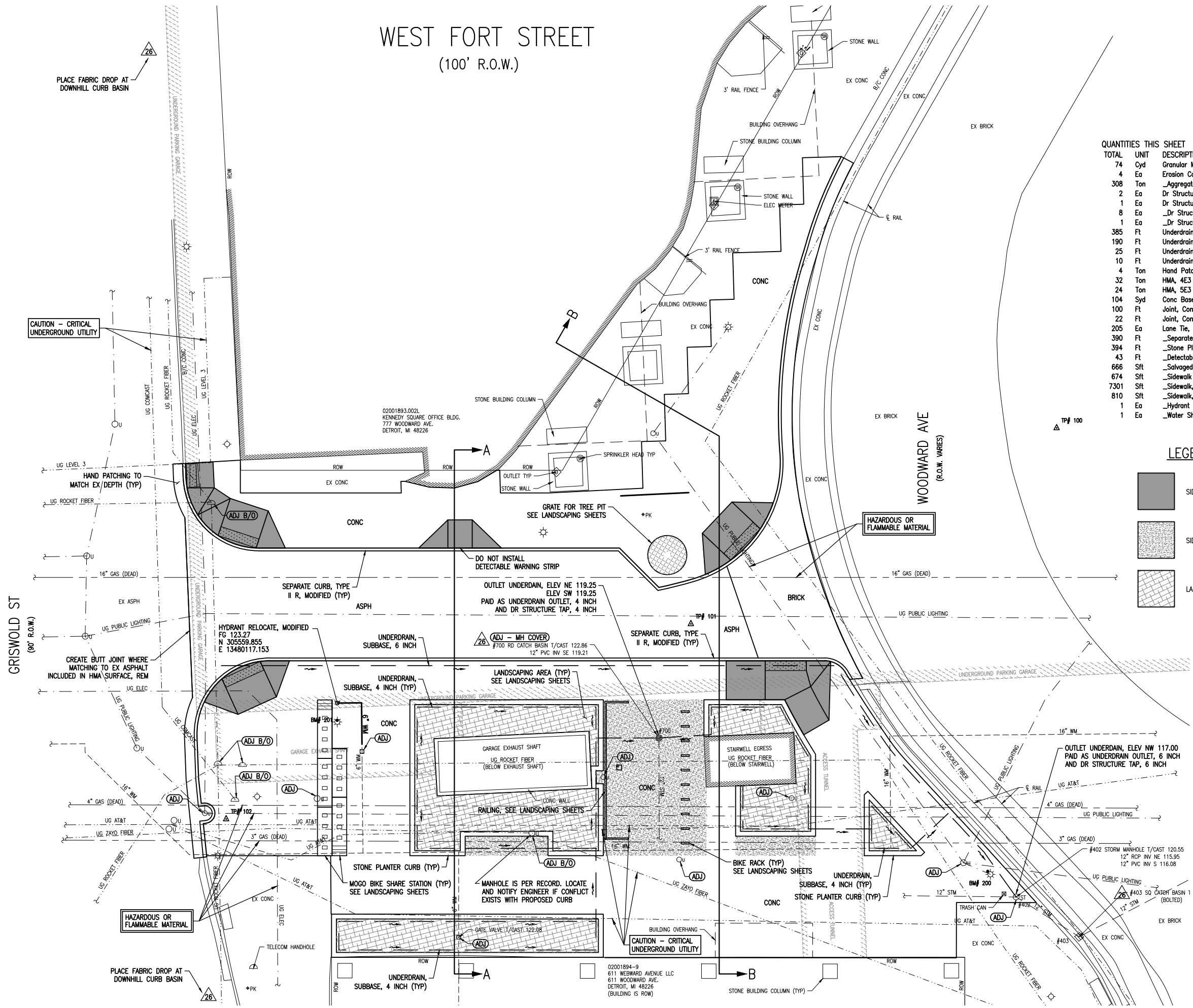
WEST FORT STREET (100' R.O.W.)



ARCHITECTS ENGINEERS PLANNERS

1145 Griswold, Suite 200
Detroit, MI 48226
P (313) 481-1250




OHM-ADVISORS.COM



QUANTITIES THIS SHEET

TOTAL	UNIT	DESCRIPTION
74	Cyd	Granular Material, C1 II
4	Ea	Erosion Control, Inlet Protection, Fabric Drop
308	Ton	Aggregate Base, Modified
2	Ea	Dr Structure, Top, 4 inch
1	Ea	Dr Structure, Top, 6 inch
8	Ea	Dr Structure Cover, Adj, Case 1, Modified
1	Ea	Dr Structure Cover, MH
385	Ft	Underdrain, Subbase, 4 inch
190	Ft	Underdrain, Subbase, 6 inch
25	Ft	Underdrain Outlet, 4 inch
10	Ft	Underdrain Outlet, 6 inch
4	Ton	Hand Patching
32	Ton	HMA, 4E3
24	Ton	HMA, 5E3
104	Syd	Conc Base Cse, Nonreinf, 9 inch
100	Ft	Joint, Contraction, Cp
22	Ft	Joint, Contraction, Crg
205	Ea	Lane Tie, Epoxy Anchored
390	Ft	Separate Curb, Type II R, Modified
394	Ft	Stone Planter Curb
43	Ft	Detectable Warning Surface, Modified
666	Sft	Salvaged Paver, Reinstall
674	Sft	Sidewalk Ramp, ADA, Modified
7301	Sft	Sidewalk, Conc, Modified
810	Sft	Sidewalk, Decorative
1	Ea	Hydrant Relocate, Modified
1	Ea	Water Shutoff, Adj, Case 1, Modified

LEGEND

-  SIDEWALK RAMP, ADA, MODIFIED
-  SIDEWALK, DECORATIVE
-  LANDSCAPING AREA

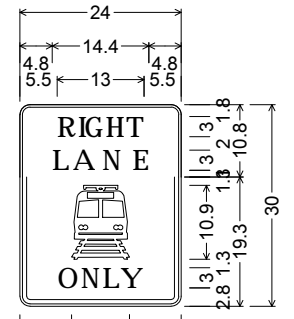
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DATE: 5/22/20 PROJ NUMBER: 7528-1900-0000 ENG: AMB PROJ LEADER: SM CAD: SM COUNTY: WAYNE CITY/VILLAGE/TOWNSHIP: DETROIT SCALE: H: 1"=10' V: 1"=4' SHEET: 10 OF 43

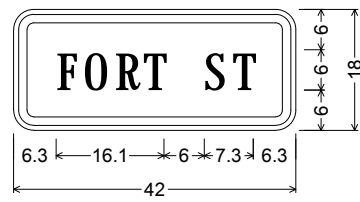
DOWNTOWN DETROIT PARTNERSHIP IN COOPERATION WITH THE CITY OF DETROIT
FORT STREET AT CAMPUS MARTIUS
CONSTRUCTION PLAN



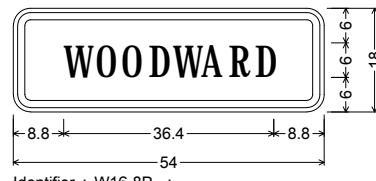
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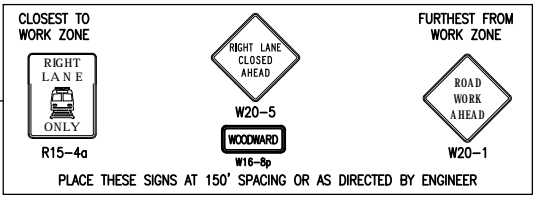
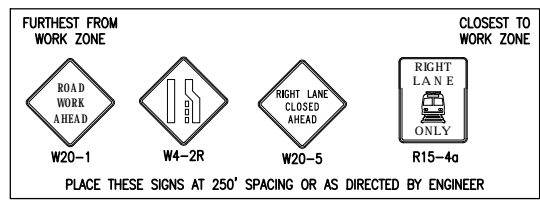
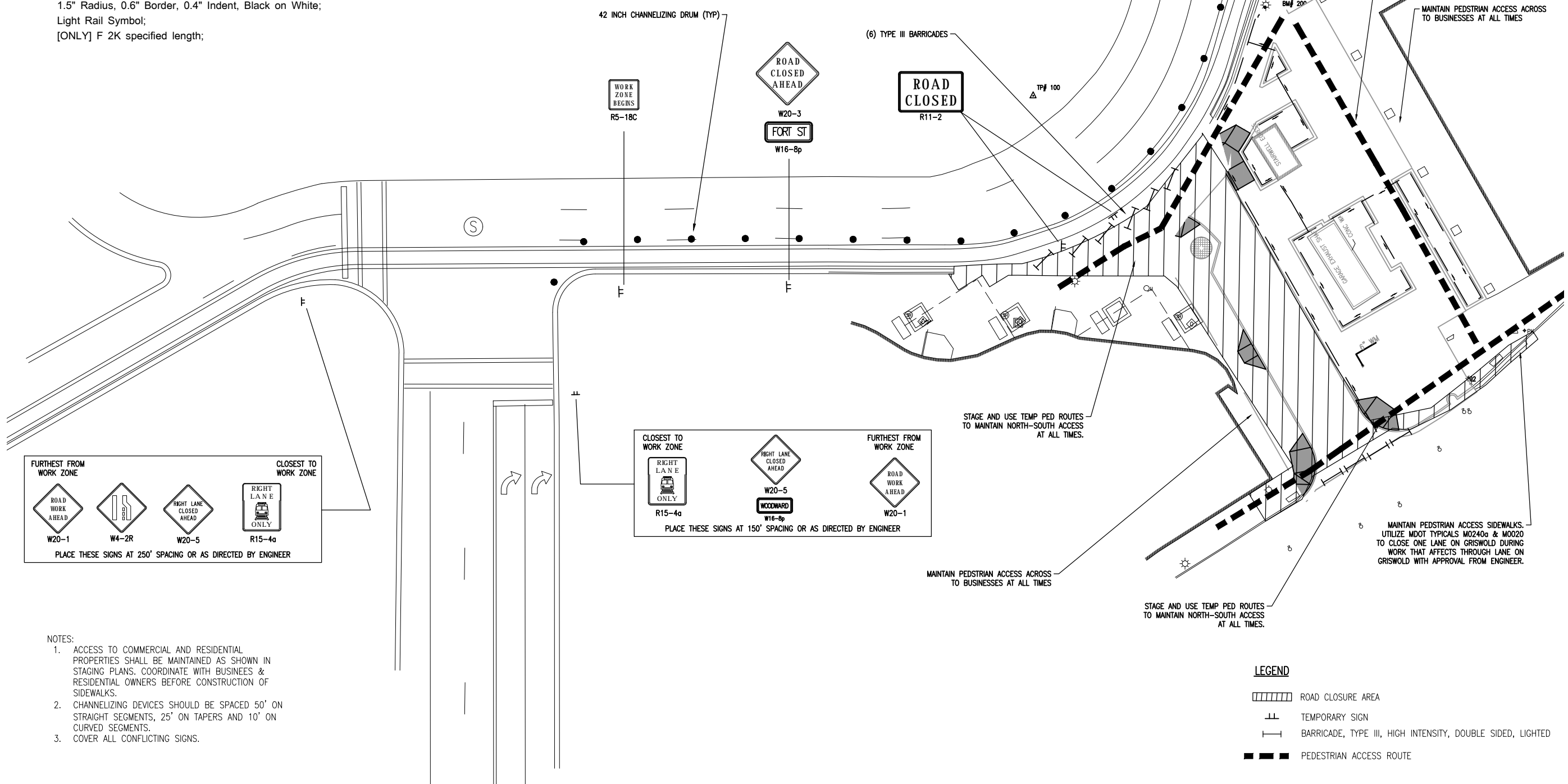
Identifier : R15-4a_24x30
1.5" Radius, 0.4" Border, White on Black;
[RIGHT] F 2K specified length;
[LANE] F 2K specified length;
1.5" Radius, 0.6" Border, 0.4" Indent, Black on White;
Light Rail Symbol;
[ONLY] F 2K specified length;



Identifier : W16-8P
3.0" Radius, 1.3" Border, 0.8" Indent, Black on Orange;
[FORT ST] C;



Identifier : W16-8P ;
3.0" Radius, 1.3" Border, 0.8" Indent, Black on Orange;
[WOODWARD] C;



- NOTES:
- ACCESS TO COMMERCIAL AND RESIDENTIAL PROPERTIES SHALL BE MAINTAINED AS SHOWN IN STAGING PLANS. COORDINATE WITH BUSINESSES & RESIDENTIAL OWNERS BEFORE CONSTRUCTION OF SIDEWALKS.
 - CHANNELIZING DEVICES SHOULD BE SPACED 50' ON STRAIGHT SEGMENTS, 25' ON TAPERS AND 10' ON CURVED SEGMENTS.
 - COVER ALL CONFLICTING SIGNS.

- LEGEND**
- ROAD CLOSURE AREA
 - TEMPORARY SIGN
 - BARRICADE, TYPE III, HIGH INTENSITY, DOUBLE SIDED, LIGHTED
 - PEDESTRIAN ACCESS ROUTE

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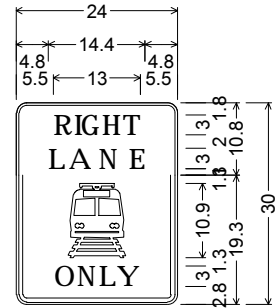
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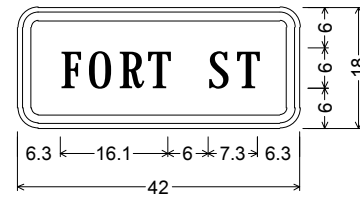
DATE: 5/22/20
PROJECT: 7501-7600-90010
CITY/VILLAGE/TOWNSHIP: DETROIT
COUNTY: WAYNE
SCALE: 1"=40'
SHEET: 11 OF 43

**DOWNTOWN DETROIT PARTNERSHIP IN COOPERATION WITH THE CITY OF DETROIT
FORT STREET AT CAMPUS MARTIUS
STAGE 1**

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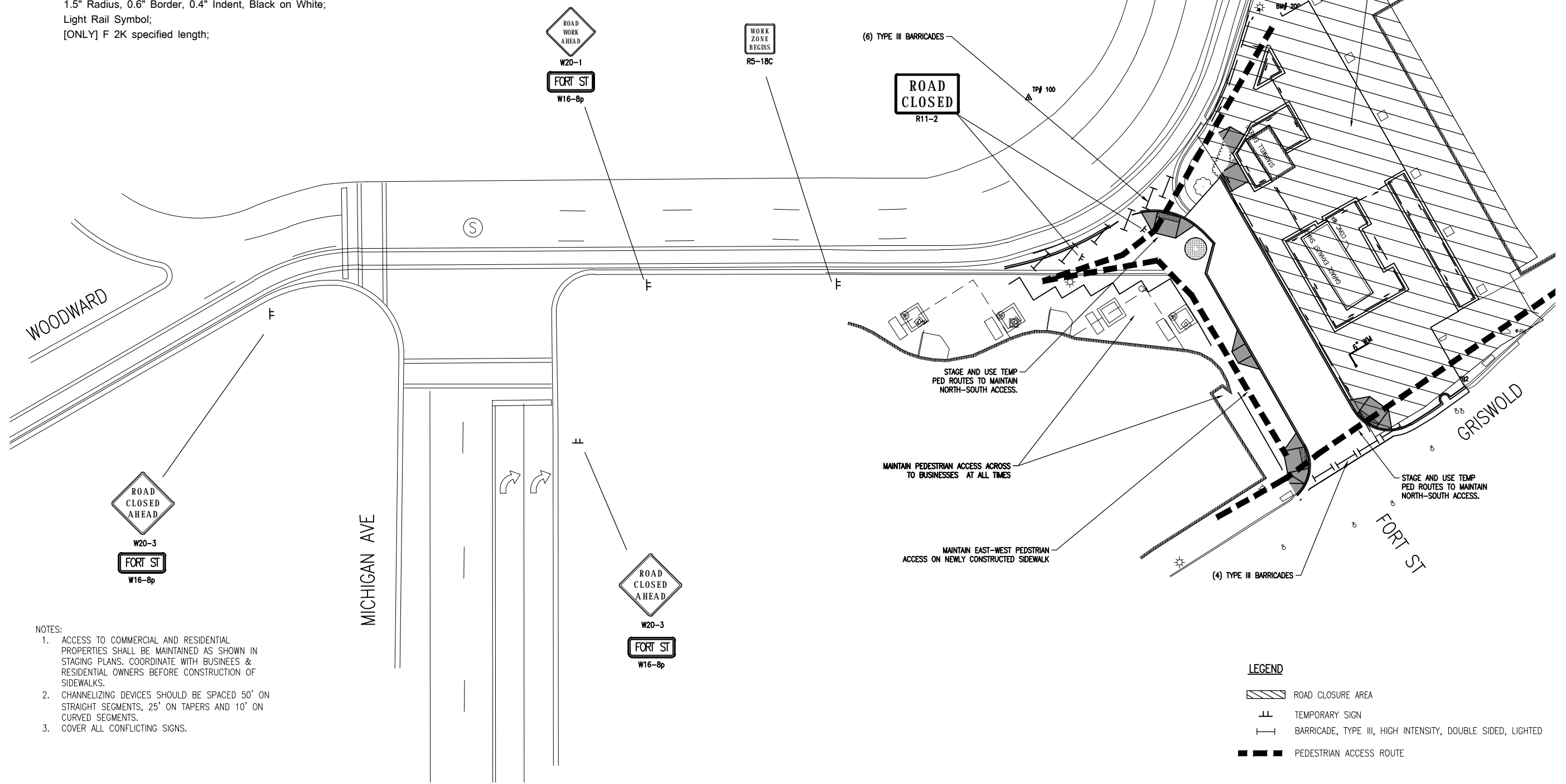
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[RIGHT] F 2K specified length;
[LANE] F 2K specified length;
1.5" Radius, 0.6" Border, 0.4" Indent, Black on White;
Light Rail Symbol;
[ONLY] F 2K specified length;



Identifier : W16-8P
3.0" Radius, 1.3" Border, 0.8" Indent, Black on Orange;
[FORT ST] C;

QUANTITIES THIS SHEET

TOTAL	UNIT	DESCRIPTION
50	Ton	Maintenance Gravel
450	Ft	_Pedestrian Path, Temp
10	Ea	_Pedestrian Ramp, Temp
20	Ea	Barricade, Type III, High Intensity, Double Sided, Lighted, Furn
20	Ea	Barricade, Type III, High Intensity, Double Sided, Lighted, Oper
25	Ea	Pedestrian Type II Barricade, Temp
300	Ft	Pedestrian Type II Channelizer, Temp
150	Ea	Channelizing Device, 42 inch, Furn
150	Ea	Channelizing Device, 42 inch, Oper
2	Ea	Lighted Arrow, Type C, Furn
2	Ea	Lighted Arrow, Type C, Oper
1	LSUM	Minor Traf Devices
10	Ea	Sign Cover
460	Sft	Sign, Type B, Temp, Prismatic, Furn
460	Sft	Sign, Type B, Temp, Prismatic, Oper
100	Sft	Sign, Type B, Temp, Prismatic, Spec, Furn
100	Sft	Sign, Type B, Temp, Prismatic, Spec, Oper
1	LSUM	Traf Regulator Control



- NOTES:**
- ACCESS TO COMMERCIAL AND RESIDENTIAL PROPERTIES SHALL BE MAINTAINED AS SHOWN IN STAGING PLANS. COORDINATE WITH BUSINESSES & RESIDENTIAL OWNERS BEFORE CONSTRUCTION OF SIDEWALKS.
 - CHANNELIZING DEVICES SHOULD BE SPACED 50' ON STRAIGHT SEGMENTS, 25' ON TAPERS AND 10' ON CURVED SEGMENTS.
 - COVER ALL CONFLICTING SIGNS.

LEGEND

	ROAD CLOSURE AREA
	TEMPORARY SIGN
	BARRICADE, TYPE III, HIGH INTENSITY, DOUBLE SIDED, LIGHTED
	PEDESTRIAN ACCESS ROUTE

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HORIZ DATUM: VERT DATUM: INCHES: FEET: SCALE: H: V: H: V: CITY/TOWNSHIP: COUNTY: STATE: DATE: PROJ NUMBER: ENG: PROJ LEAD: PROJ MANAGER: PROJ SUPERVISOR: PROJ CHECKER: PROJ APPROVER: PROJECT TITLE: DOWNTOWN DETROIT PARTNERSHIP IN COOPERATION WITH THE CITY OF DETROIT FORT STREET AT CAMPUS MARTIUS STAGE 2

JOB BENCHMARK #200	
CHISELED "4" ON N BOLT L.P. BSE	
AT THE NE COR OF THE	
CHASE TOWER BLDG	
ELEV	121.215
JOB BENCHMARK #201	
CHISELED "4" ON NW BOLT L.P. BSE	
AT NE/QUAD OF FORT & GRISWOLD	
ELEV	123.440
TRAVERSE POINT #100	
N	305683.91
E	13480215.16
ELEV	122.82
TRAVERSE POINT #101	
N	305610.94
E	13480171.21
ELEV	121.90
TRAVERSE POINT #102	
N	305527.72
E	13480109.73
ELEV	122.95

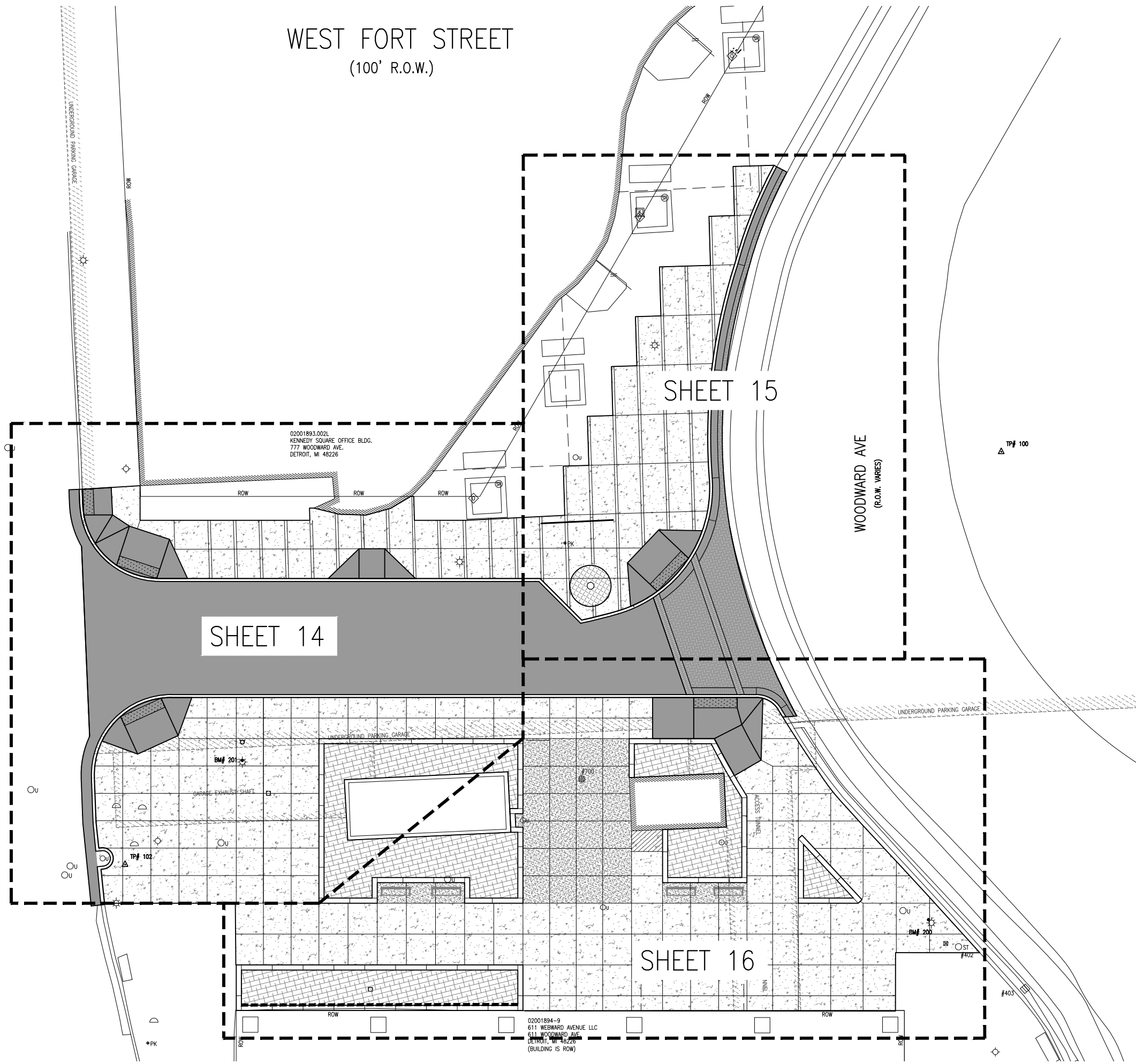
WEST FORT STREET
(100' R.O.W.)



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REVISIONS	

DATE	PROJ NUMBER	ENG	PROJ MGR	CADD	COUNTY	CITY/VILLAGE/TOWNSHIP	SCALE	VERT DATUM	REVISIONS
5/22/20	7528-19010	AMB	BOG	SM	WAYNE	DETROIT	H: 1"=10' V: 1"=4'	INDUS	DETROIT/CITY
DOWNTOWN DETROIT PARTNERSHIP IN COOPERATION WITH THE CITY OF DETROIT									
FORT STREET AT CAMPUS MARTIUS									
DETAIL GRADES - AREA MAP									

JOB BENCHMARK #200
CHISELED "4" ON N BOLT L.P. BSE
AT THE NE COR OF THE
CHASE TOWER BLDG
ELEV 121.215

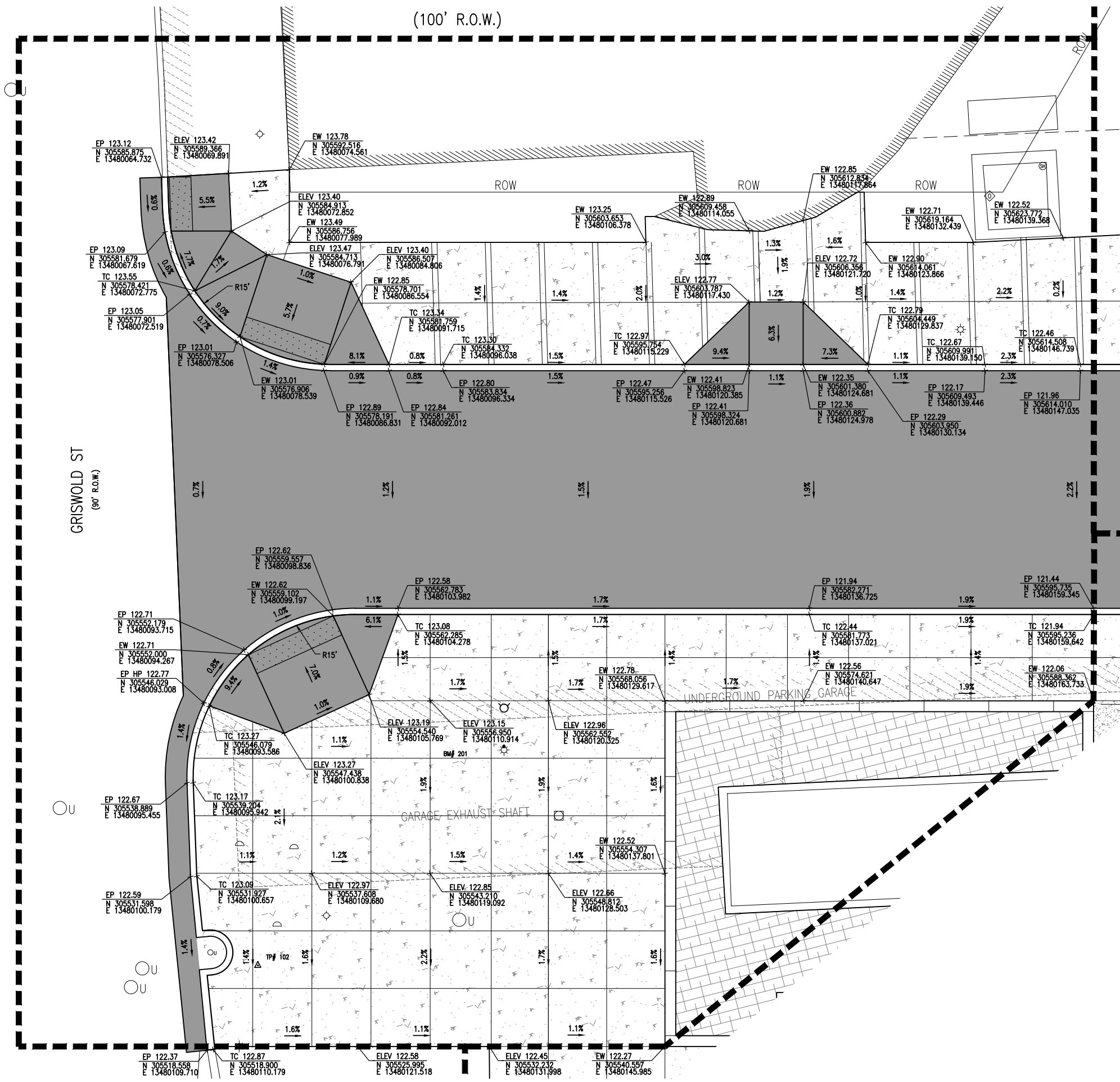
JOB BENCHMARK #201
CHISELED "4" ON NW BOLT L.P. BSE
AT NE/QUAD OF FORT & GRISWOLD
ELEV 123.440

TRAVERSE POINT #100
N 305683.91
E 13480215.16 ELEV 122.82

TRAVERSE POINT #101
N 305610.94
E 13480171.21 ELEV 121.90

TRAVERSE POINT #102
N 305527.72
E 13480109.73 ELEV 122.95

WEST FORT STREET (100' R.O.W.)



LEGEND

- EP = EDGE OF PAVEMENT
- EW = EDGE OF WALK
- TC = TOP OF CURB
- HP = HIGH POINT
- LP = LOW POINT
- N = NORTHING
- E = EASTING

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REVISIONS	DATE	BY	DESCRIPTION

DATE: 7/28/2020
PROJECT: 7528-19-010
PROJ. NO.: 7528-19-010
ENG: AMB
CITY/VILLAGE/TOWNSHIP: DETROIT
COUNTY: WAYNE
CAD: SM
SCALE: H: 1"=6'
V: 1"=4'NAD83
VERT DATUM: MDT
HORIZ DATUM: DETROITICS

DOWNTOWN DETROIT PARTNERSHIP IN COOPERATION WITH THE CITY OF DETROIT
FORT STREET AT CAMPUS MARTIUS
DETAIL GRADES

14
OF 43



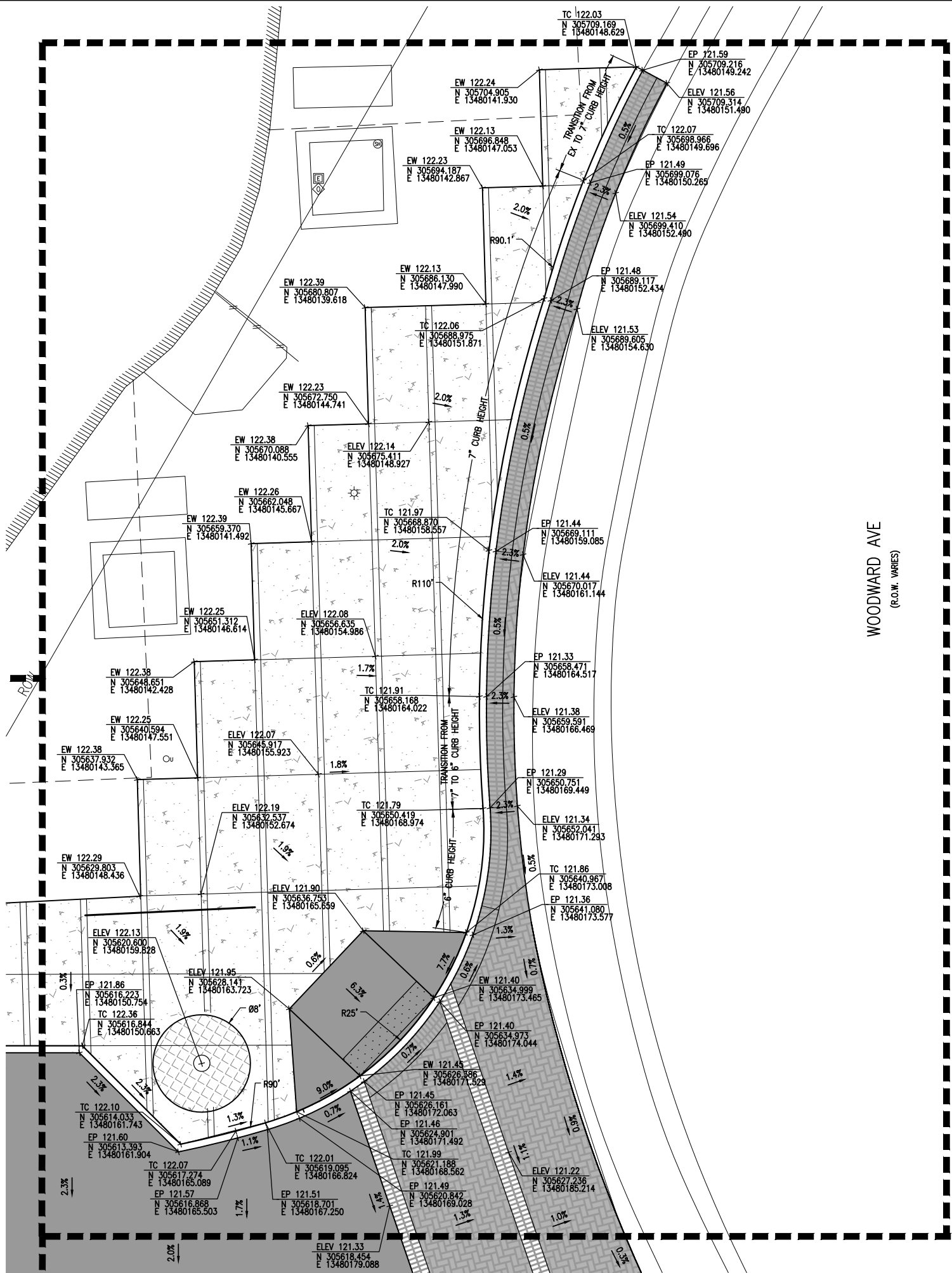
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JOB BENCHMARK #200 CHISELED "X" ON N BOLT L.P. BSE AT THE NE COR OF THE CHASE TOWER BLDG ELEV 121.215	
JOB BENCHMARK #201 CHISELED "X" ON NW BOLT L.P. BSE AT NE/QUAD OF FORT & GRISWOLD ELEV 123.440	
TRAVERSE POINT #100 N 305683.91 E 13480215.16 ELEV 122.82	
TRAVERSE POINT #101 N 305610.94 E 13480171.21 ELEV 121.90	
TRAVERSE POINT #102 N 305527.72 E 13480109.73 ELEV 122.95	

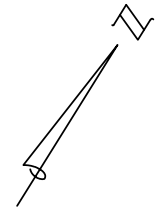
WEST FORT STREET (100' R.O.W.)



WOODWARD AVE
(R.O.W. VARIES)

LEGEND

- EP = EDGE OF PAVEMENT
- EW = EDGE OF WALK
- TC = TOP OF CURB
- HP = HIGH POINT
- LP = LOW POINT
- N = NORTHING
- E = EASTING



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REVISIONS	DATE	BY	DESCRIPTION

DATE	PROJ NUMBER	ENG	PROJ MGR	CADD	COUNTY	CITY/VILLAGE/TOWNSHIP	SCALE	INVERT DATUM	VERT DATUM
5/22/20	7528-19-00	AMB	RAG	SM	WAYNE	DETROIT	1"=6'	NA	INDIS

DOWNTOWN DETROIT PARTNERSHIP IN COOPERATION WITH THE CITY OF DETROIT
FORT STREET AT CAMPUS MARTIUS
DETAIL GRADES



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WEST FORT STREET (100' R.O.W.)

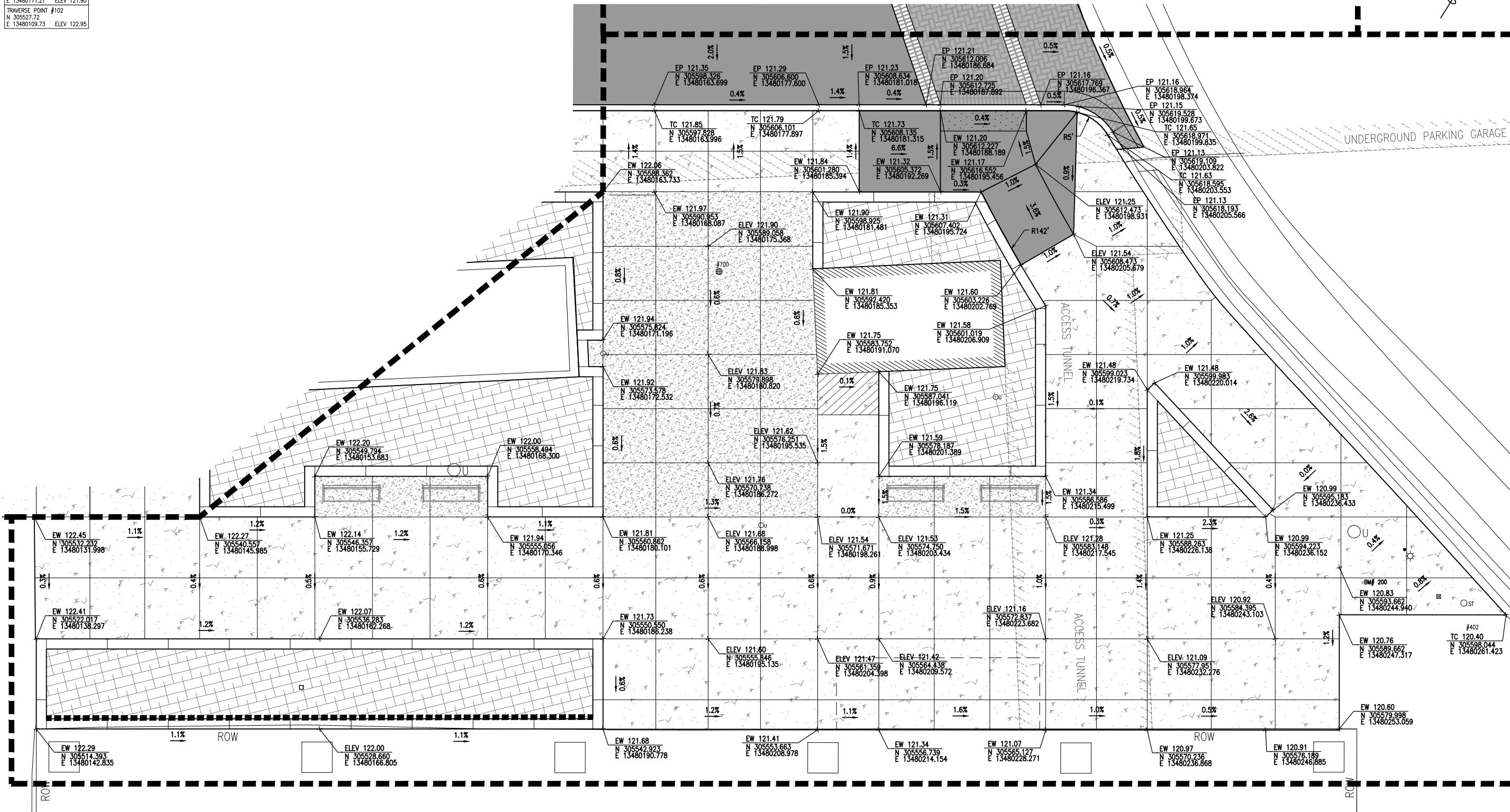
JOB BENCHMARK #200 CHISELED "4" ON N BOLT L.P. BSE AT THE NE COR OF THE CHASE TOWER BLDG ELEV 121.215	
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TRAVERSE POINT #102 N 305527.72 E 13480109.73 ELEV 122.95	



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LEGEND

- EP = EDGE OF PAVEMENT
- EW = EDGE OF WALK
- TC = TOP OF CURB
- HP = HIGH POINT
- LP = LOW POINT

N = NORTHING
E = EASTING



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REVISIONS

DATE: 5/22/20
PROJECT: 7528-19-010
PROJ. NO.: 7528-19-010
ENG: AMB
CITY/VILLAGE/TOWNSHIP: DETROIT
COUNTY: WAYNE
SCALE: 1" = 10'-0"
JOB NO.: 16
SHEET NO.: 16 OF 43

DOWNTOWN DETROIT PARTNERSHIP IN COOPERATION WITH THE CITY OF DETROIT
FORT STREET AT CAMPUS MARTIUS
DETAIL GRADES

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GENERAL NOTES

- CONTRACTOR SHALL BE RESPONSIBLE FOR BEING FAMILIAR WITH ALL DOCUMENTED UNDERGROUND UTILITIES, PIPES AND STRUCTURES. LOCATE AND PROTECT ALL EXISTING UTILITIES DURING CONSTRUCTION UNLESS OTHERWISE NOTED. CONTACT MISS DIG (811 OR 800-482-7171) A MINIMUM OF 3 DAYS PRIOR TO CONSTRUCTION.
- CONTRACTOR SHALL BE RESPONSIBLE FOR ANY COORDINATION WITH SUBCONTRACTORS AS REQUIRED TO ACCOMPLISH PLANTING OPERATIONS.
- REFER TO DETAILS AND SPECIFICATIONS FOR ADDITIONAL INFORMATION.
- ALL DIMENSIONS ON THIS DRAWING ARE IN FEET AND INCHES UNLESS OTHERWISE NOTED.
- DO NOT SCALE DRAWINGS. UTILIZE DIMENSIONS INDICATED ON THE PLANS. THE CONTRACTOR SHALL COORDINATE ALL WORK AND BE RESPONSIBLE FOR ALL METHODS, MEANS, SEQUENCE, AND PROCEDURES OF THE WORK.
- THE CONTRACTOR SHALL KEEP ALL DRAINAGE FACILITIES (CATCH BASINS, YARD DRAINS, ETC.) AFFECTED BY HIS CONSTRUCTION OPERATIONS CLEAN AND FULLY OPERATIONAL AT ALL TIMES.
- CONTRACTOR SHALL REPAIR AT HIS OWN EXPENSE, ANY DAMAGE, WHETHER INSIDE OR OUTSIDE OF THE PROJECT LIMITS, TO UTILITY SYSTEMS, SURFACE PAVEMENTS, FIXTURES, STRUCTURES, AND/OR EXISTING TREES OR LANDSCAPING THAT ARE NOT SPECIFICALLY INDICATED TO BE REMOVED OR RELOCATED AS PART OF THE PROJECT CONSTRUCTION. IN THE EVENT THAT ANY EXISTING DRAINAGE STRUCTURES OR UTILITIES ARE DAMAGED AND THE SERVICES DISRUPTED, THE LINES SHALL BE IMMEDIATELY REPAIRED AND THE SERVICES RESTORED AS DIRECTED BY THE ENGINEER.
- IN THE EVENT THAT DISCREPANCIES ARISE BETWEEN WHAT IS SHOWN ON THE DRAWINGS AND ACTUAL FIELD CONDITIONS THE ENGINEER SHALL BE NOTIFIED IMMEDIATELY FOR RESOLUTION.
- THE CONTRACTOR IS RESPONSIBLE FOR CONSISTENCY OF THE ANGLE OF THE SCORING PATTERN AND JOINTING PATTERN IN THE CROSSWALKS. THE SCORING PATTERN IS SUBJECT TO THE ENGINEERS APPROVAL.

LAYOUT NOTES:

- ALL DIMENSIONS SHOWN ARE IN FEET AND INCHES UNLESS OTHERWISE NOTED.
- DO NOT SCALE DRAWINGS. UTILIZE DIMENSIONS INDICATED ON THE PLANS.
- ALL DIMENSIONS ARE TO THE EDGE OF PAVEMENT, FACE OF WALL, OR FACE OF CURB UNLESS OTHERWISE NOTED.
- WALKWAYS AND HARDSCAPE ELEMENTS INDICATED AS CURVILINEAR SHALL HAVE SMOOTH CONTINUOUS CURVES.
- UNLESS INDICATED OTHERWISE, ALL WALKWAYS ABUT AT 90 DEGREE ANGLES.
- ALL CONCRETE SCORING SHALL BE PARALLEL, PERPENDICULAR OR TANGENT TO ADJACENT IMPROVEMENTS UNLESS OTHERWISE NOTED.
- LAYOUT ALL CONSTRUCTION LINES AND VERIFY LAYOUT WITH THE OWNER'S REPRESENTATIVE PRIOR TO BEGINNING ANY CONSTRUCTION WORK.
- RADII OF CURBS ARE ESTIMATED FROM SURVEY OR BASE DATA. THE CONTRACTOR SHALL MAKE ALL MODIFICATIONS NECESSARY TO ASSURE EXISTING AND NEW CURBS MEET FLUSH, EVEN AND SMOOTHLY.
- PROVIDE ISOLATION JOINTS WHERE CONCRETE PAVING OR PAVING BASE MEETS A FIXED STRUCTURE (EXISTING OR PROPOSED).
- PROVIDE FLUSH CONDITIONS AT JUNCTURE OF ALL WALKWAYS AND DOOR THRESHOLDS.
- REFER TO GENERAL NOTES FOR ADDITIONAL INSTRUCTIONS.

IRRIGATION NOTES:

- ALL PRODUCTS SHALL BE INSTALLED IN ACCORDANCE WITH THE MANUFACTURER'S INSTRUCTIONS AND ACCORDING TO LOCAL BUILDING, ELECTRICAL AND PLUMBING CODES.
- CONTRACTOR SHALL ARRANGE INSPECTIONS FOR IRRIGATION REQUIRED BY THE SPECIAL PROVISION DURING THE COURSE OF CONSTRUCTION. ALL WIRING AND BACKFLOW PREVENTION TO BE PER LOCAL CODE AND AS DESCRIBED IN THE SPECIAL PROVISIONS.
- INSTALL IRRIGATION MAINS WITH A MINIMUM OF 18" OF COVER BASED ON FINISH GRADES. INSTALL IRRIGATION LATERALS WITH MINIMUM 12" OF COVER BASED ON FINISH GRADES.
- ALL WIRE SPLICES OR CONNECTIONS SHALL BE MADE WITH APPROVED WATERPROOF WIRE CONNECTIONS AND BE IN A VALVE OR SPLICE BOX.
- ALL CONTROL WIRING DOWNSTREAM OF THE CONTROLLER IS TO BE 14 AWG, UL APPROVED DIRECT BURY.
- SEE IRRIGATION SPECIAL PROVISION FOR ADDITIONAL INFORMATION.
- SHOP DRAWINGS SHALL BE REQUIRED FOR IRRIGATION PLANS AS DESCRIBED IN THE SPECIAL PROVISIONS AND SUBMITTED FOR APPROVAL PRIOR TO INSTALLATION.
- THE CONTRACTOR SHALL DESIGN THE SYSTEM TO PROVIDE HEAD TO HEAD COVERAGE IN THE PLANTING AREAS DEFINED IN THIS PLAN SET. REFER TO IRRIGATION SPEC FOR MORE INFORMATION.

PLANTING NOTES

- THE CONTRACTOR SHALL VERIFY UTILITY CLEARANCES THROUGH MISS DIG PRIOR TO DETERMINING FINAL LOCATIONS FOR ALL STREETScape FEATURES, INCLUDING ALL PLANTINGS. ANY FIELD ADJUSTMENTS TO FINAL PLANTING LOCATIONS SHALL BE AS DIRECTED BY THE ENGINEER.
- STAKE ALL BED LINES AND TREE LOCATIONS FOR THE ENGINEER'S REVIEW PRIOR TO INSTALLATION. ALL PLANTING PROCEDURES ARE SUBJECT TO THE REVIEW OF THE ENGINEER AND THE CONTRACTOR SHALL CORRECT ANY DEFICIENCIES FOUND AT NO ADDITIONAL COST TO THE OWNER.
- SECURE PLANT MATERIAL AS SPECIFIED ON PLANS. IN THE EVENT THAT PLANT MATERIALS SPECIFIED ARE NOT AVAILABLE, CONTACT ENGINEER FOR APPROVED SUBSTITUTIONS. NO SUBSTITUTIONS FOR PLANT MATERIALS WILL BE ALLOWED WITHOUT PRIOR WRITTEN APPROVAL BY THE ENGINEER.
- VERIFY THAT ALL PLANTING PRODUCTS, PLANT MATERIAL, AND PLANT QUANTITIES DELIVERED TO THE SITE MATCH WHAT IS INDICATED ON THE PLANS AND SPECIFICATIONS.
- PROTECT ALL PLANT MATERIAL DURING DELIVERY TO PREVENT DAMAGE TO ROOT BALLS, TRUNKS, BRANCHES AND THE DESICCATION OF LEAVES. PROTECT ALL PLANT MATERIAL DURING SHIPPING WITH SHADE CLOTH OR SHIP WITH ENCLOSED TRANSPORT. MAINTAIN PROTECTIONS AND HEALTH OF PLANT MATERIAL STORED ON SITE. HANDLE ALL TREES WITH NYLON STRAPS. NO CHAINS OR CABLES WILL BE ALLOWED. REMOVE UNACCEPTABLE PLANT MATERIAL IMMEDIATELY FROM THE SITE.
- ALL PLANT MATERIAL SHALL BE NURSERY GROWN, WELL FORMED, TRUE TO SPECIES, HARDENED OFF WITH VIGOROUS ROOT SYSTEMS, FULL CROWN AND CANOPIES, AND FREE FROM DISEASE, PESTS AND INSECTS, AND DEFECTS SUCH AS KNOTS, SUN SCALD, WINDBURN, LEAF DIS-COLORATION, IRREGULAR BRANCHING OR INJURIES.
- ALL ROOT BALLS SHALL CONFORM TO THE SIZE STANDARDS SET FORTH IN 'AMERICAN STANDARDS FOR NURSERY STOCK' (ANSI 60.1).
- ALL PLANT MATERIAL DELIVERED TO THE SITE IS SUBJECT TO THE REVIEW OF THE ENGINEER BEFORE, DURING AND AFTER INSTALLATION.
- PROVIDE PLANT SAMPLES OR PHOTOGRAPHS OF EACH PLANT SPECIFIED TO THE ENGINEER FOR COMPLIANCE REVIEW PRIOR TO INSTALLATION.
- TEST FILL ALL TREE AND PLANTING PITS WITH WATER, PRIOR TO PLANTING, TO ASSURE PROPER SOIL PERCOLATION. PITS WHICH DO NOT ADEQUATELY DRAIN SHALL BE FURTHER EXCAVATED TO A DEPTH SUFFICIENT FOR DRAINAGE TO OCCUR AND/OR BACKFILLED WITH SUITABLE DRAINAGE GRAVEL. NO ALLOWANCES SHALL BE MADE FOR PLANT MATERIAL LOSS DUE TO IMPROPER DRAINAGE. CONTRACTOR SHALL REPLACE LOST PLANT MATERIAL WITH SAME SIZE AND SPECIES AT NO ADDITIONAL COST TO OWNER.
- ALL PLANT MATERIALS, INCLUDING RELOCATED PLANT MATERIAL, SHALL BE PLANTED IN A PROFESSIONAL MANNER TYPICAL TO THE INDUSTRY STANDARDS TO ASSURE COMPLETE SURVIVABILITY OF ALL INSTALLED PLANT MATERIALS AS WELL AS TO PROVIDE AN AESTHETICALLY APPROVED PROJECT. CONTRACTOR SHALL REFER TO THE PLANTING DETAILS FOR MINIMUM SIZE AND WIDTH OF PLANTING PITS AND BEDS, GUYING AND STAKING, MULCHING, AND OTHER PLANTING REQUIREMENTS.
- ALL LANDSCAPE BEDS TO INCLUDE 12" MINIMUM DEPTH PLANTING SOIL AND 3" DEPTH MULCH.
- ALL PLANTING AREAS SHALL BE WEED FREE PRIOR TO PLANTING INSTALLATION.
- REMOVE ALL PLANTING AND LANDSCAPE DEBRIS FROM THE PROJECT SITE AND SWEEP AND WASH CLEAN ALL PAVED AND FINISHED SURFACES AFFECTED BY THE LANDSCAPE INSTALLATION.
- REFER TO GENERAL NOTES FOR ADDITIONAL INSTRUCTIONS.
- SEE SHEETS 25 - SITE AND LANDSCAPE DETAILS & 26 - SITE AND LANDSCAPE DETAILS FOR PROJECT DETAILS.

QUANTITIES THIS SHEET

TOTAL	UNIT	DESCRIPTION
39	Ft	_Decorative Railing
4	Ea	_Backed Bench
10	Ea	_Bike Rack
1	Ea	_Trash Receptacle
1	Ea	_Tree Grate
1	Ea	_Blade Sign
1	LSUM	Site Preparation, Max
1	LSUM	Watering and Cultivating, First Season, Min
23	Ea	Hosta Variety, #1 cont. X
120	Ea	Narcissus Variety, bulb X
2	Ea	_Ilex verticillata FARROWMRP, #5 cont.
33	Ea	_Aronia melanocarpa UCONNAM166, #5 cont.
24	Ea	_Asarum canadense, 4" inch pot
10	Ea	_Brunnera macrophylla Sea Heart, #1 cont.
4	Ea	_Cercis canadensis, 12' clump, Specimen
68	Ea	_Geranium maculatum, #1 cont.
34	Ea	_Heruchera Black Pearl, #1 cont.
6	Ea	_Ilex verticillata FARROWBPOP, #5 cont.
4	Ea	_Panicum virgatum Shenandoah, #3 cont.
5	Ea	_Platanus x acerifolia Exclamation, 15', Specimen
14	Ea	_Polystichum acrostichoides, #3 cont.
28	Ea	_Tiarella x Cutting Edge, #1 cont.
120	Ea	_Vinca minor, 4 inch pot
1	LSUM	_Underground Automatic Irrigation System
55	Ft	_Root Barrier, 18"
13	Cyd	_Double Shredded Hardwood Bark Mulch
108	Cyd	_Planting Mix
15	Cyd	_Structural Soil Cells, North
30	Cyd	_Alternate #1 - Structural Soil Cells, South



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DATE: 5/22/20
PROJ NUMBER: 7526-19-010
ENG: AMB
PROJ LEADER: RAG
CADD: SM
COUNTY: WAYNE
CITY/VILLAGE/TOWNSHIP: DETROIT
SCALE: H: 1"=10' V: 1/4"=1'-0"
SHEET: 17 OF 43

DEPARTMENT: PUBLIC WORKS
PROJECT: DOWNTOWN DETROIT PARTNERSHIP IN COOPERATION WITH THE CITY OF DETROIT
FORT STREET AT CAMPUS MARTIUS
SITE AND LANDSCAPE NOTES



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MATERIALS LIST			
CODE	ITEM	PRODUCT / MATERIAL / FINISH / SIZE	NOTES
C-1	CONCRETE STRAIGHT CURB	BROOM FINISH	SEE CIVIL DRAWINGS
C-2	STONE PLANTER CURB	CALEDONIA GRANITE, FLAMED FINISH	SEE SHEET 25, DETAIL 1
E-1	EXISTING LIGHT POLE	-	PROTECT IN PLACE
E-2	EXISTING PLANTER AND COLUMN	-	PROTECT IN PLACE
E-3	EXISTING Q-LINE RAIL	-	PROTECT IN PLACE
F-1A	SALVAGED TRASH RECEPTACLE	VICTOR STANLEY - SD-42	SURFACE MOUNT PER MANUFACTURER'S INSTRUCTIONS
F-1B	TRASH RECEPTACLE	VICTOR STANLEY - SD-42, MATCH EXISTING COLOR	SURFACE MOUNT PER MANUFACTURER'S INSTRUCTIONS
F-2	BIKE SHARE STATION	-	COORDINATE INSTALLATION WITH MOGO BIKE SHARE
F-3	DECORATIVE RAILING	PER PLAN	SEE SHEET 25, DETAILS 9 AND 10
F-4	BLADE SIGN	PER PLAN	SEE SHEET 25, DETAIL 7
F-5	BIKE RACK	LANDSCAPE FORMS - EMERSON, TITANIUM	SURFACE MOUNT PER MANUFACTURER'S INSTRUCTIONS
F-6	BACKED BENCH	LANDSCAPE FORMS - STAY, TITANIUM	SURFACE MOUNT PER MANUFACTURER'S INSTRUCTIONS
F-7	TREE GRATE AND GRATE FRAME	TREE GRATE: IRONSMITH - 9615 OLYMPIAN, 8' DIA. FOUR PART TREE GRATE, BLACK POWDERCOATED IRON GRATE FRAME: IRONSMITH - 9601FCS FRAME, 8' DIA. TWO PART TREE GRATE FRAME, BLACK POWDERCOATED STEEL	SEE SHEET 25, DETAIL 8
J-1	CONCRETE PAVEMENT AT EXISTING CONCRETE PAVEMENT	-	SEE CIVIL DRAWINGS
J-2	ASPHALT PAVEMENT AT EXISTING ASPHALT PAVEMENT	-	SEE CIVIL DRAWINGS
J-3	UNIT PAVERS AT CONCRETE	-	SEE CIVIL DRAWINGS
J-4	ASPHALT PAVEMENT AT UNIT PAVERS	-	SEE CIVIL DRAWINGS
J-5	PLANTER CURB AT EXISTING BUILDING	-	SEE SHEET 25, DETAIL 2
J-6	CONCRETE PAVEMENT AT EXISTING UNIT PAVERS	-	SEE CIVIL DRAWINGS
P-1	ASPHALT PAVEMENT	-	SEE CIVIL DRAWINGS
P-2	SIDEWALK, 4 INCH	BROOM FINISH	SEE CIVIL DRAWINGS
P-3	UNIT PAVER	COLOR 1 - HERRINGBONE PATTERN	SEE CIVIL DRAWINGS
P-4	UNIT PAVER	COLOR 1 - DOUBLE SOLDIER COURSE	SEE CIVIL DRAWINGS
P-5	UNIT PAVER	COLOR 2 - DOUBLE SOLDIER COURSE	SEE CIVIL DRAWINGS
P-6	FROST FREE FOOTING	BROOM FINISH	SEE SHEET 25, DETAIL 4
P-7	SIDEWALK, DECORATIVE, 4 INCH	INTEGRALLY COLORED, EXPOSED AGGREGATE FINISH	SEE CIVIL DRAWINGS
R-1	CURB RAMP	-	SEE CIVIL DRAWINGS
R-2	MODIFIED CURB RAMP	-	SEE CIVIL DRAWINGS
S-1	LIMITS OF STRUCTURAL SOIL CELLS - NORTH	PER PLAN	SEE SHEET 23 AND SHEET 25, DETAIL 5
S-2	ROOT BARRIER	DEEPROOT - US-18-2 18" DEPTH ROOT BARRIER	INSTALL PER MANUFACTURER'S INSTRUCTIONS
S-3	LIMITS OF ALTERNATE #1 - STRUCTURAL SOIL CELLS - SOUTH	PER PLAN	SEE SHEET 23 AND SHEET 25, DETAIL 6

NOTES: THIS SCHEDULE CORRESPONDS WITH THE SITE MATERIALS PLAN ON PAGE 19

PRODUCT, MATERIAL AND FINISH INFORMATION IS PROVIDED FOR CONTRACTOR CONVENIENCE ONLY. SPECIFICATIONS OR DETAILS SHALL DICTATE FINAL PRODUCT MATERIAL AND FINISH.



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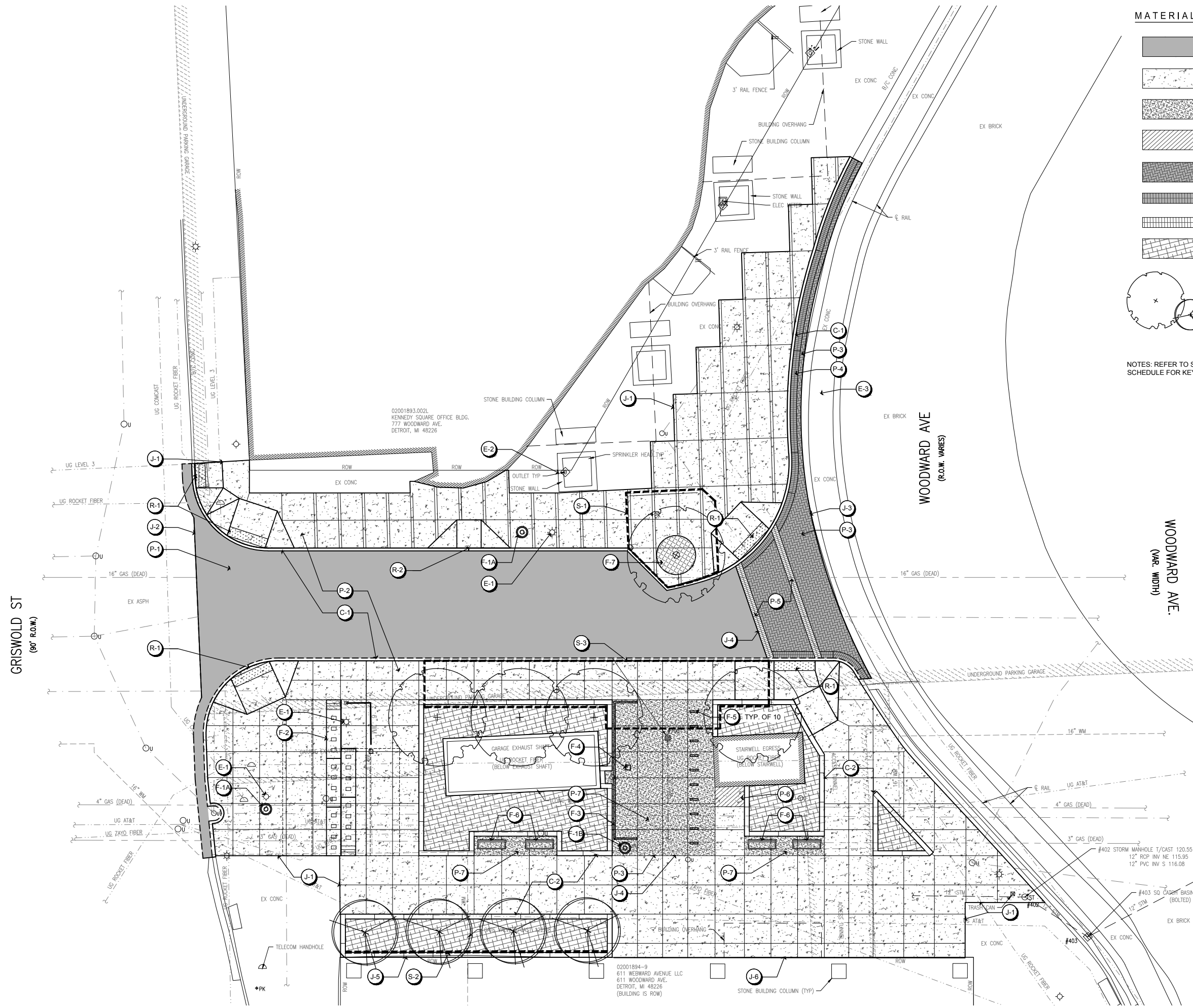
REVISIONS

NO.	DATE	DESCRIPTION









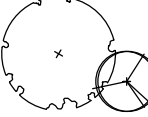
DATE: 7/26/2020
PROJ NUMBER: 752619400
ENG: AMB
PROJ LEADER: RAG
CADD: SM
COUNTY: WAYNE
CITY/VILLAGE/TOWNSHIP: DETROIT
SCALE: H: 1"=10' V: 1"=4'
SHEET: 18 OF 43
DOWNTOWN DETROIT PARTNERSHIP IN COOPERATION WITH THE CITY OF DETROIT
FORT STREET AT CAMPUS MARTIUS
SITE MATERIALS SCHEDULE

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MATERIALS LEGEND:

-  ASPHALT PAVEMENT
-  SIDEWALK, 4 INCH
-  SIDEWALK, DECORATIVE, 4 INCH
-  FROST FREE FOOTING
-  BRICK PAVER - COLOR 1, HERRINGBONE PATTERN
-  BRICK PAVER - COLOR 1, SOLDIER COURSE PATTERN
-  BRICK PAVER - COLOR 2, SOLDIER COURSE PATTERN
-  LANDSCAPE AREA
-  DECIDUOUS TREE

NOTES: REFER TO SHEET 18 - SITE MATERIALS SCHEDULE FOR KEY NOTE LEGEND



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DOWNTOWN DETROIT PARTNERSHIP IN COOPERATION WITH THE CITY OF DETROIT
FORT STREET AT CAMPUS MARTIUS
SITE MATERIALS PLAN

DATE	PROJ NUMBER	ENG	PROJ LEAD	CADD	COUNTY	CITY/VILLAGE/TOWNSHIP	SCALE	VERT DATUM	HORIZ DATUM
5/22/20	7528-19-010	AMB	RAG	SM	WAYNE	DETROIT	1"=10'	NA	DETROIT UIC

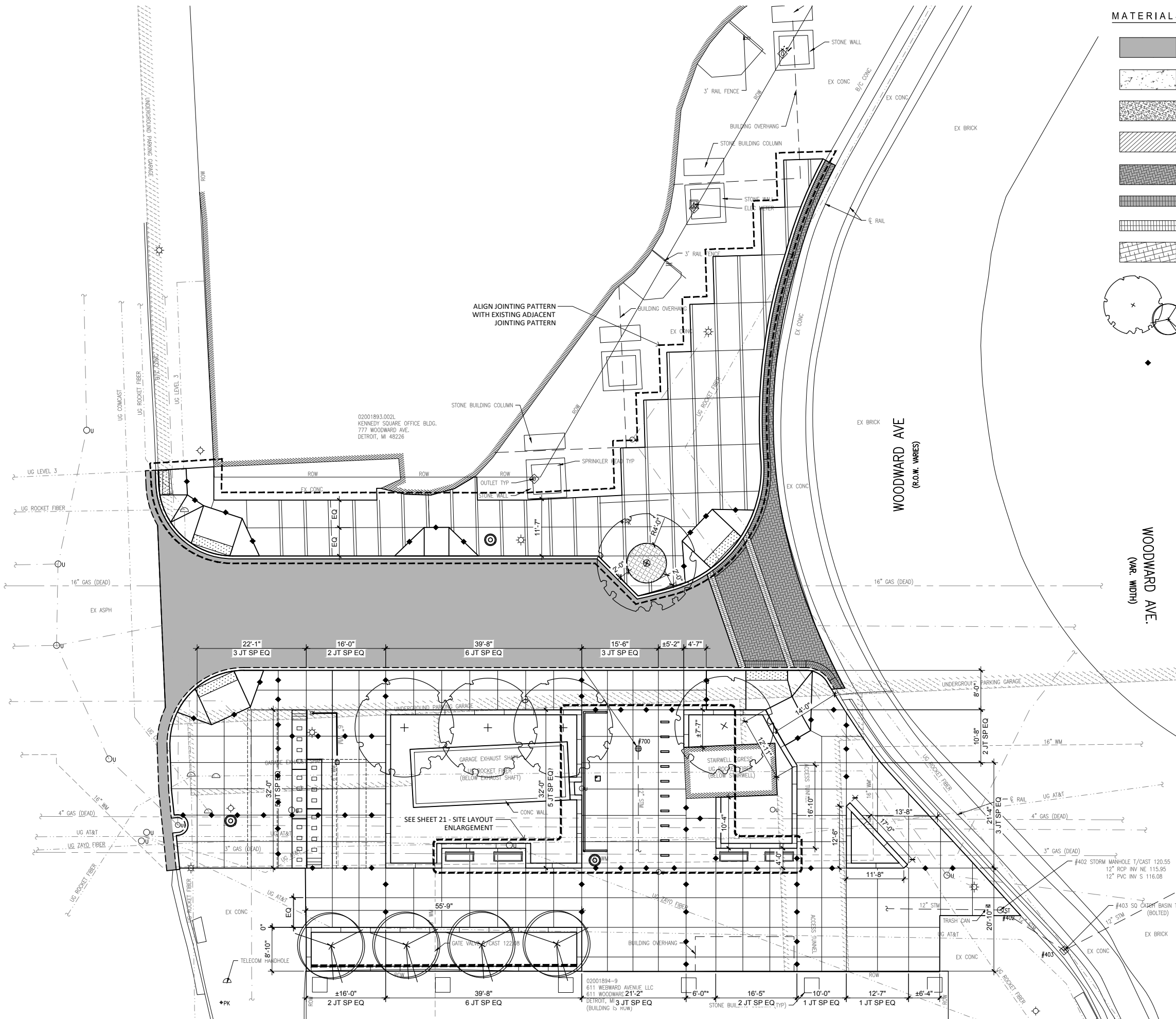


Know what's below.
Call before you dig.











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DRAWING PATH: P:\7501_7600\7628\90010_Campus_Martius_Fort_St_31.dwg, May 26, 2020 - 12:35pm

GRISWOLD ST
(90' R.O.W.)



MATERIALS LEGEND:

-  ASPHALT PAVEMENT
-  SIDEWALK, 4 INCH
-  SIDEWALK, DECORATIVE, 4 INCH
-  FROST FREE FOOTING
-  BRICK PAVER - COLOR 1, HERRINGBONE PATTERN
-  BRICK PAVER - COLOR 1, SOLDIER COURSE PATTERN
-  BRICK PAVER - COLOR 2, SOLDIER COURSE PATTERN
-  LANDSCAPE AREA
-  DECIDUOUS TREE
-  EXPANSION JOINT



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ARCHITECTS ENGINEERS PLANNERS
1145 Griswold, Suite 200
Detroit, MI 48226
P (313) 481-1250
OHM-ADVISORS.COM

REVISION	DATE	BY	DESCRIPTION

PROJECT: DOWNTOWN DETROIT PARTNERSHIP IN COOPERATION WITH THE CITY OF DETROIT
SITE: FORT STREET AT CAMPUS MARTIUS
SHEET: 20 OF 43



Know what's below.
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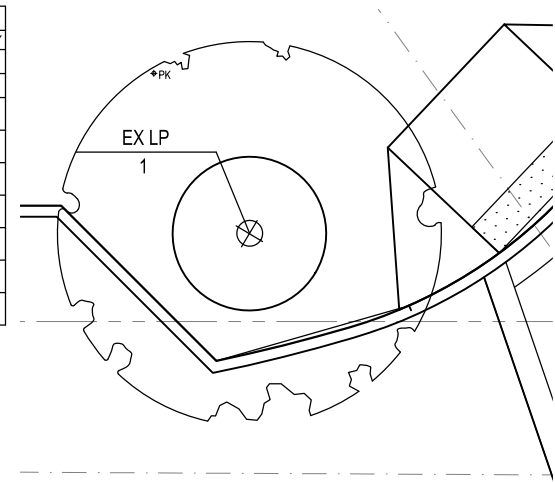
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PLANT LIST: TREES						
CODE	COMMON NAME	LATIN NAME	SIZE	COND.	SPACING	QUANTITY
ES RB	EASTERN REDBUD TREE	<i>Cercis canadensis</i>	12' HT., 3-5 STEMS, SPECIMEN	B&B	PER PLAN	4
EX LP	EXCLAMATION LONDON PLANETREE	<i>Platanus x acerifolia 'Exclamation'</i>	15' HT., SPECIMEN	B&B	PER PLAN	5

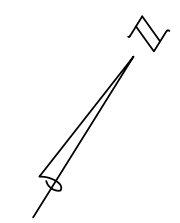
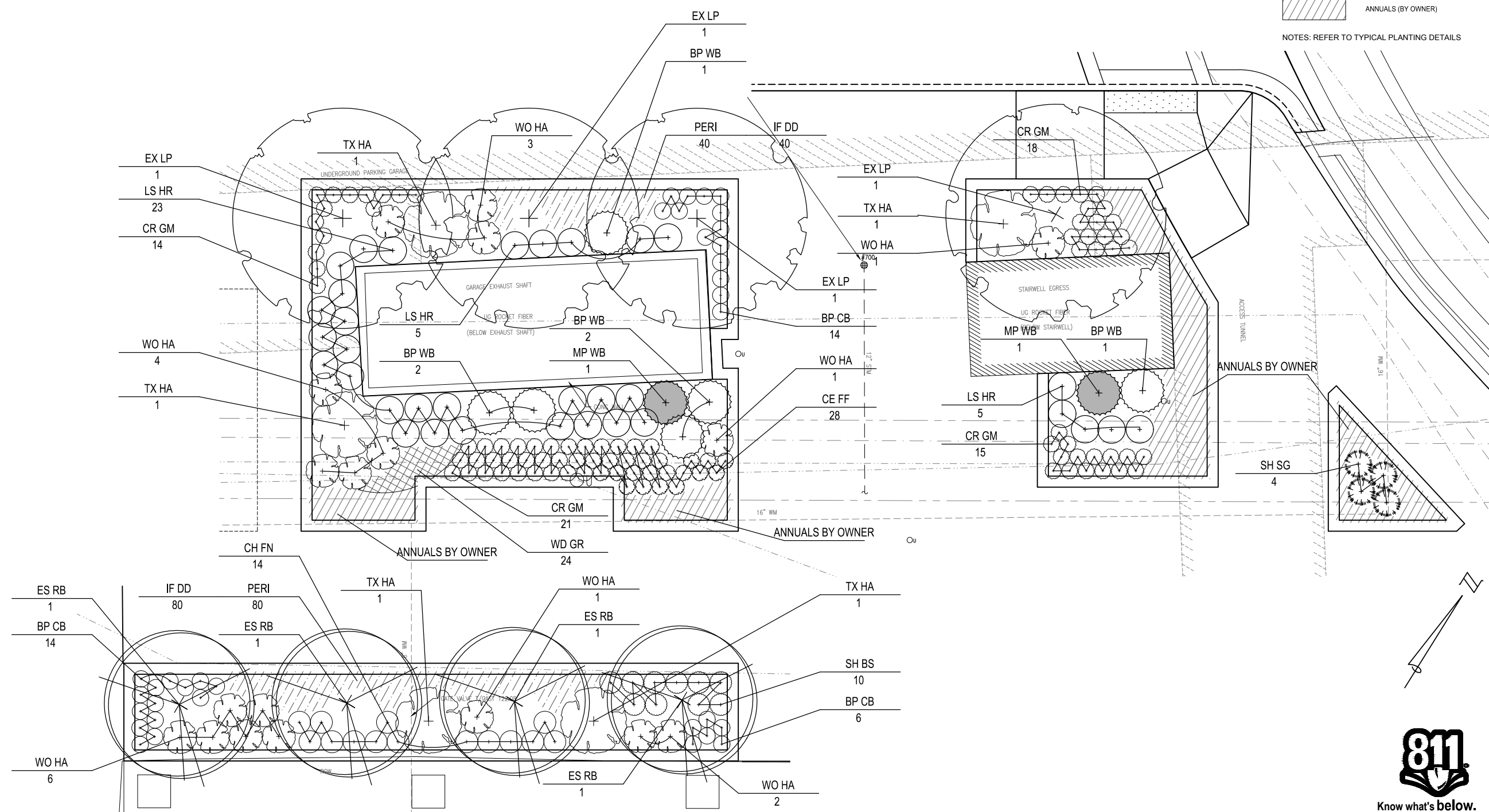
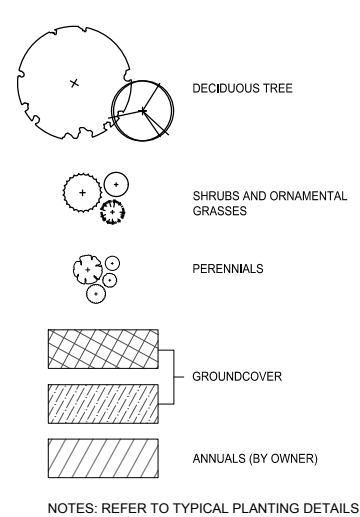
PLANT LIST: SHRUBS & GRASSES						
CODE	COMMON NAME	LATIN NAME	SIZE	COND.	SPACING	QUANTITY
LS HR	LOW SCAPE HEDGER	<i>Aronia melanocarpa 'UCONNAM166'</i>	24" HT.	#5 CONT.	30" O.C.	33
SH SG	SHENANDOAH SWITCH GRASS	<i>Panicum virgatum 'Shenandoah'</i>	24" HT.	#3 CONT.	36" O.C.	4
BP WB	BARRY POPPINS WINTERBERRY	<i>Ilex verticillata 'FARROWBPOP'</i>	24" HT.	#5 CONT.	48" O.C.	6
MP WB	MR POPPINS WINTERBERRY	<i>Ilex verticillata 'FARROWMRP'</i>	24" HT.	#5 CONT.	48" O.C.	2

PLANT LIST: BULBS						
CODE	COMMON NAME	LATIN NAME	SIZE	COND.	SPACING	QUANTITY
IF DD	ICE FOLLIES DAFFODIL	<i>Narcissus 'Ice Follies'</i>	-	BULB	12" O.C.	120

PLANT LIST: PERENNIALS & GROUNDCOVERS							
CODE	COMMON NAME	LATIN NAME	SIZE	COND.	SPACING	QUANTITY	
CR GM	CRANESBILL GERANIUM	<i>Geranium maculatum</i>	6" HT.	#1 CONT.	18" O.C.	68	
WD GR	WILD GINGER	<i>Asarum canadense</i>	3" HT.	4" POT	12" O.C.	24	
BP CB	PRIMO BLACK PEARL CORAL BELLS	<i>Heuchera hybrid 'BLACK PEARL'</i>	6" HT.	#1 CONT.	18" O.C.	34	
TX HA	T REX HOSTA	<i>Hosta x 'T REX'</i>	12" HT.	#1 CONT.	PER PLAN	5	
WO HA	WOLVERINE HOSTA	<i>Hosta x 'Wolverine'</i>	12" HT.	#1 CONT.	3" O.C.	18	
CH FN	CHRISTMAS FERN	<i>Polystichum acrostichoides</i>	12" HT.	#3 CONT.	2" O.C.	14	
SH BS	'SEA HEART' BUGLOSS	<i>Brunnera macrophylla 'Sea Heart'</i>	9" HT.	#1 CONT.	1.5" O.C.	10	
PERI	PERIWINKLE	<i>Vinca minor</i>	3" HT.	4" POT	12" O.C.	120	
CE FF	CUTTING EDGE FOAMFLOWER	<i>Tiarella x 'Cutting Edge'</i>	8" HT.	#1 CONT.	18" O.C.	28	



PLANTING LEGEND:


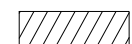
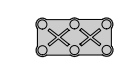


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DRAWING PATH: P:\7501_7600\7628\90010_Campus_Martius_Fort_St_Xing\Drawings\PLN_Landscape\Drawings\90010_Landscape Plans.dwg May 26, 2020 - 12:35pm

SOIL LEGEND:

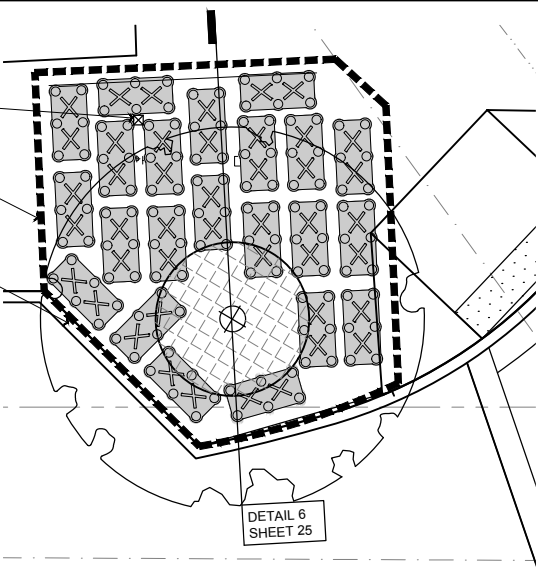
-  12" DEPTH PLANTING SOIL
-  36" DEPTH PLANTING SOIL
-  STRUCTURAL SOIL CELL

- NOTES:**
1. EXCAVATE STRUCTURAL SOIL CELL AREA TO DEPTHS REQUIRED FOR INSTALLATION
 2. STRUCTURAL SOILS SHALL CONTAIN MODIFIED PLANTING SOIL, REFER TO SPECIFICATIONS
 3. STRUCTURAL SOIL CELL LAYOUT IS APPROXIMATED. REVIEW IN FIELD WITH OWNER'S REPRESENTATIVE FOR APPROVAL PRIOR TO FINAL INSTALLATION

SOIL AIR VENT - (1) WITHIN
BASE SCOPE, COORDINATE
WITH SYSTEM BELOW

LIMITS OF STRUCTURAL SOIL INSTALLATION,
BASE SCOPE - OVEREXCAVATE FROM EDGE OF
CELLS BY 12", MAINTAIN MAX SPACING
BETWEEN CELLS OF 6"

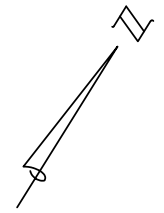
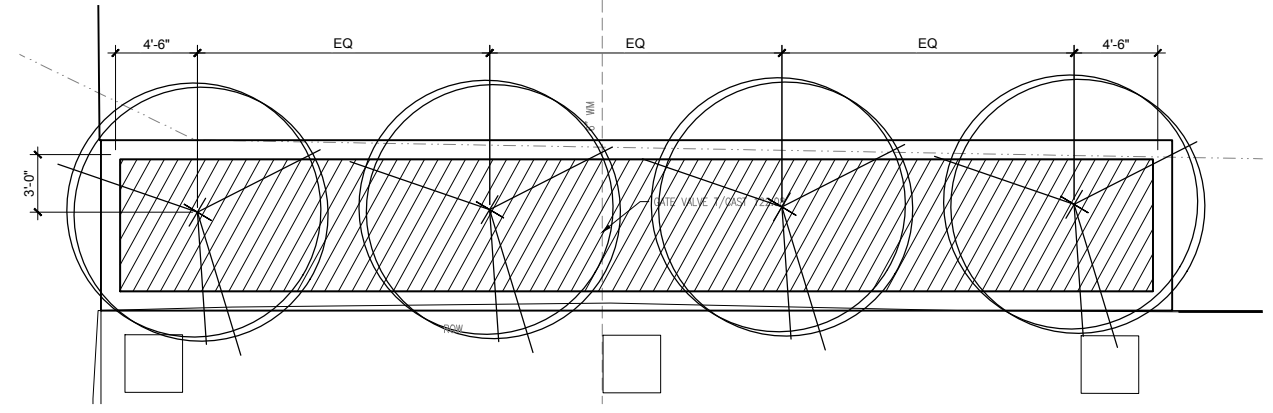
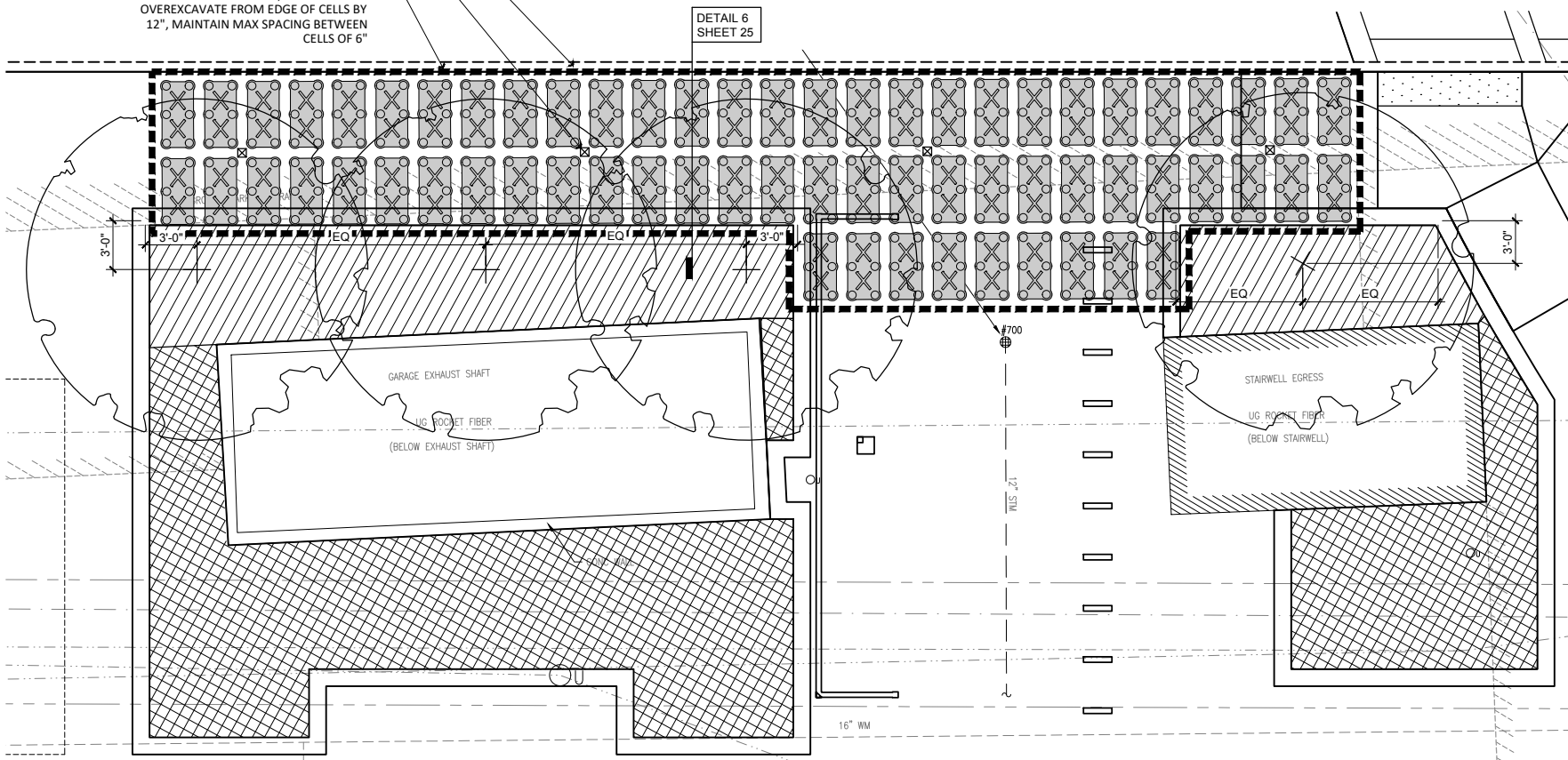
MAINTAIN 6" BETWEEN EDGE OF
CELLS AND BACK OF CURB



MAINTAIN 6" BETWEEN EDGE OF
CELLS AND BACK OF CURB

SOIL AIR VENT - (4) WITHIN
ALTERNATE #1, SPACE 20' O.C. AND
COORDINATE WITH SYSTEM BELOW

LIMITS OF STRUCTURAL SOIL CELL
EXCAVATION, ALTERNATE #1.
OVEREXCAVATE FROM EDGE OF CELLS BY
12", MAINTAIN MAX SPACING BETWEEN
CELLS OF 6"



Know what's below.
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REVISIONS	DATE	BY	DESCRIPTION

DATE	PROJ NUMBER	ENG	PROJ LEAD	CADD	COUNTY	CITY/VILLAGE/TOWNSHIP	SCALE	H	V	WM	VERT DATUM	DETRITICS
5/22/20	7528-19-010	AMB			WAYNE	DETROIT	1"=10'					

DOWNTOWN DETROIT PARTNERSHIP IN COOPERATION WITH THE CITY OF DETROIT
 FORT STREET AT CAMPUS MARTIUS
 SOILS PLAN

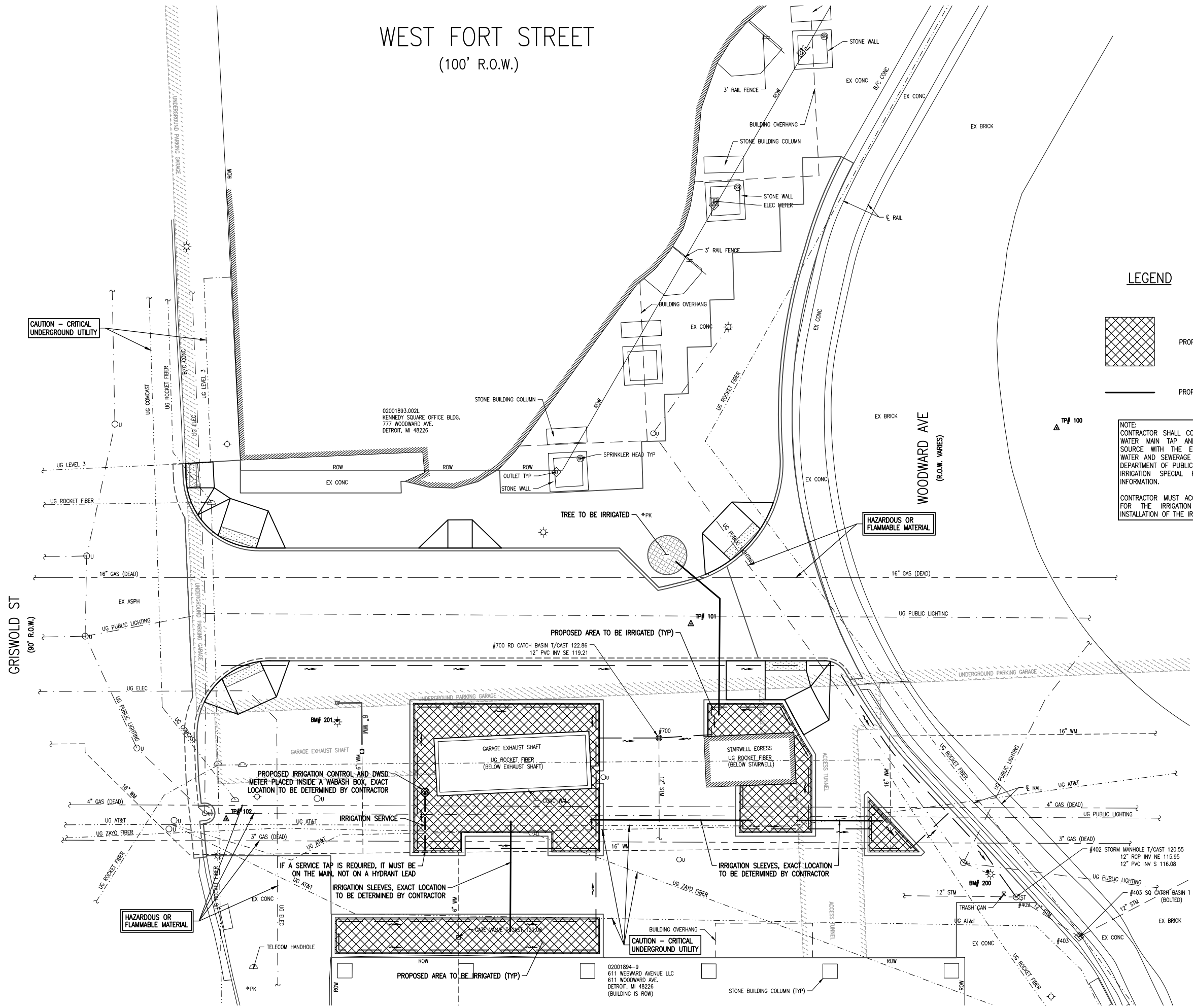
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JOB BENCHMARK #200 CHISELED "4" ON N BOLT L.P. BSE AT THE NE COR OF THE CHASE TOWER BLDG ELEV 121.215
JOB BENCHMARK #201 CHISELED "4" ON NW BOLT L.P. BSE AT NE/QUAD OF FORT & GRISWOLD ELEV 123.440
TRAVERSE POINT #100 N 305683.91 E 13480215.16 ELEV 122.82
TRAVERSE POINT #101 N 305610.94 E 13480171.21 ELEV 121.90
TRAVERSE POINT #102 N 305527.72 E 13480109.73 ELEV 122.95

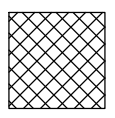

WEST FORT STREET (100' R.O.W.)



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LEGEND

-  PROPOSED AREA TO BE IRRIGATED
-  PROPOSED IRRIGATION SLEEVES

NOTE:
CONTRACTOR SHALL COORDINATE LOCATION OF WATER MAIN TAP AND ELECTRICAL SERVICE SOURCE WITH THE ENGINEER, THE DETROIT WATER AND SEWERAGE DEPARTMENT, AND THE DEPARTMENT OF PUBLIC WORKS. REFER TO THE IRRIGATION SPECIAL PROVISION FOR MORE INFORMATION.

CONTRACTOR MUST ACQUIRE A DWS PERMIT FOR THE IRRIGATION PLAN BEFORE ANY INSTALLATION OF THE IRRIGATION CAN BEGIN.

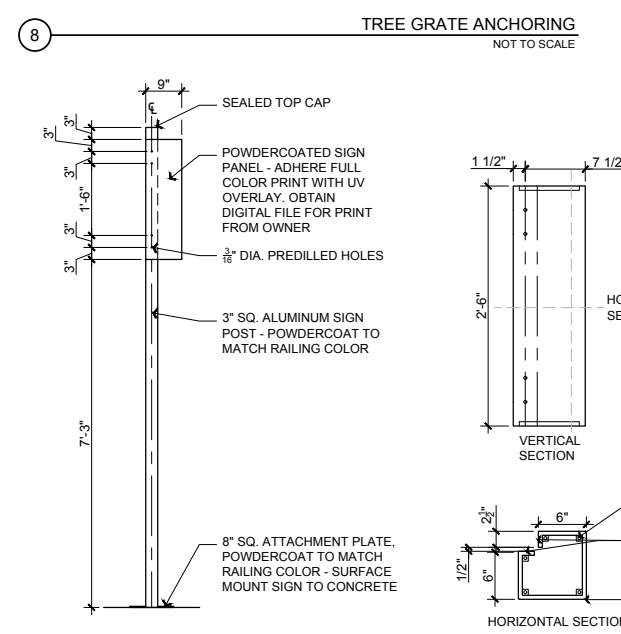
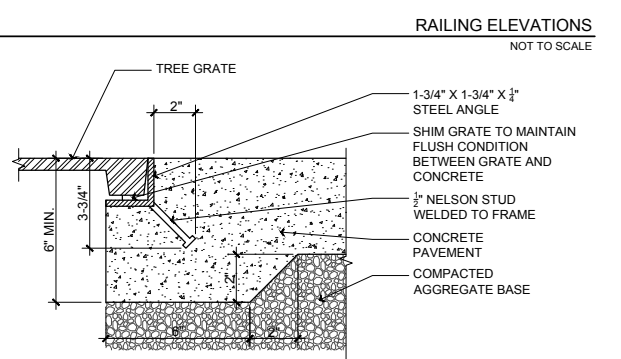
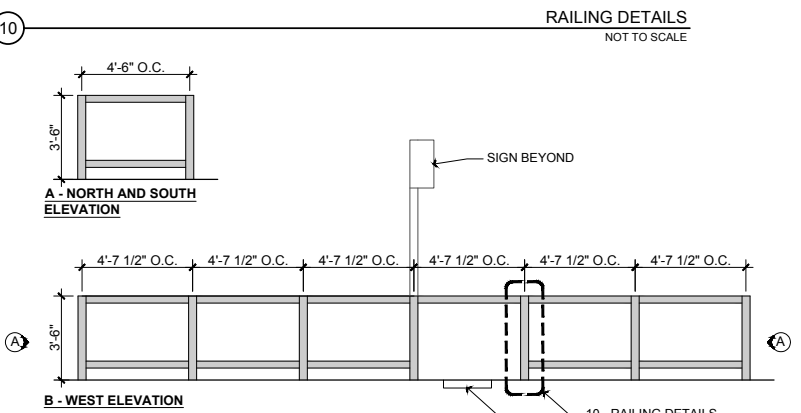
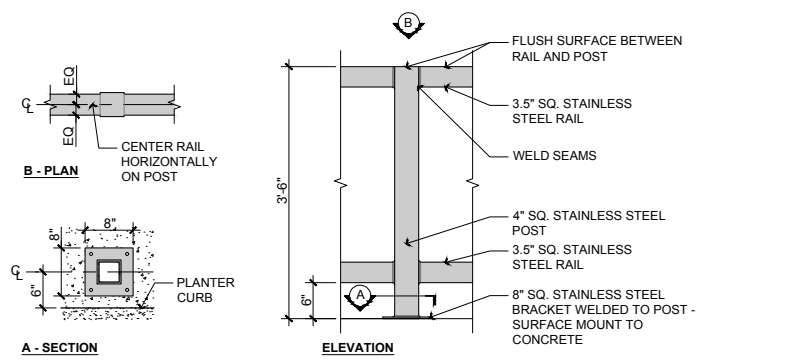


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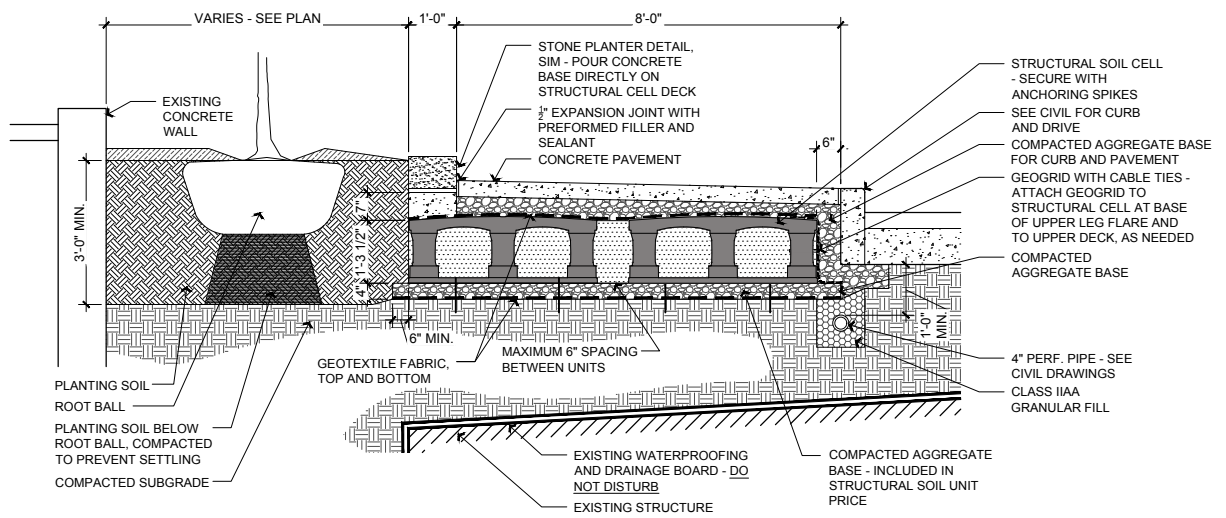
DOWNTOWN DETROIT PARTNERSHIP IN COOPERATION WITH THE CITY OF DETROIT
 FORT STREET AT CAMPUS MARTIUS
 IRRIGATION PLAN

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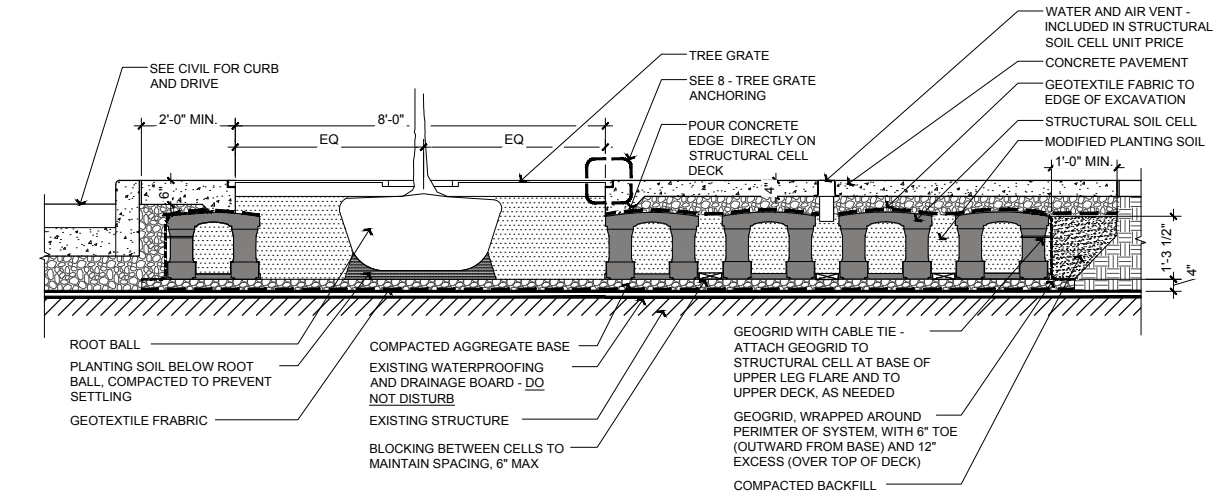
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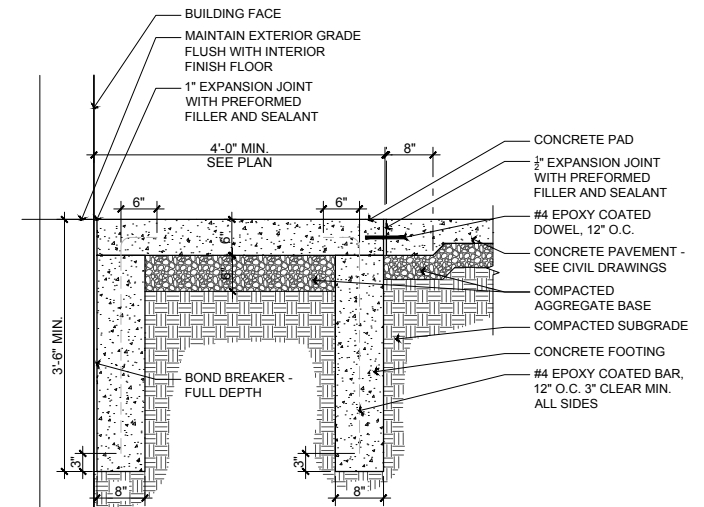
NOTE: FINAL VINYL GRAPHIC DESIGN TO BE SUPPLIED BY OWNER, FABRICATED BY CONTRACTOR



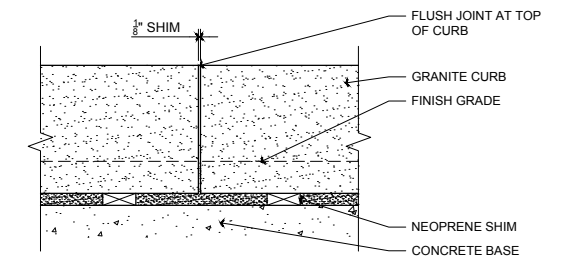
ALTERNATE #1 - STRUCTURAL SOIL CELLS - SOUTH NOT TO SCALE



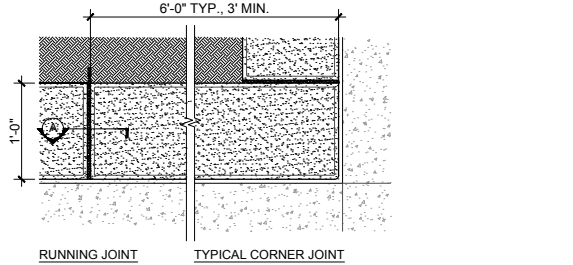
STRUCTURAL SOIL CELLS - NORTH NOT TO SCALE



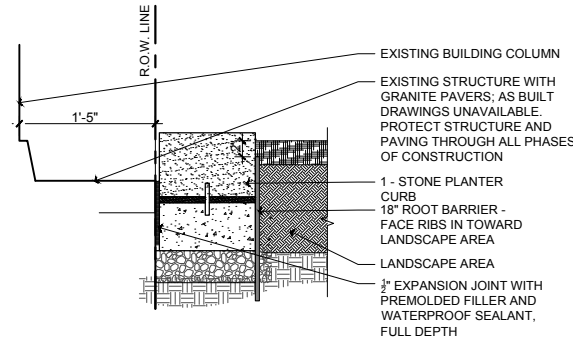
FROST FREE SLAB NOT TO SCALE



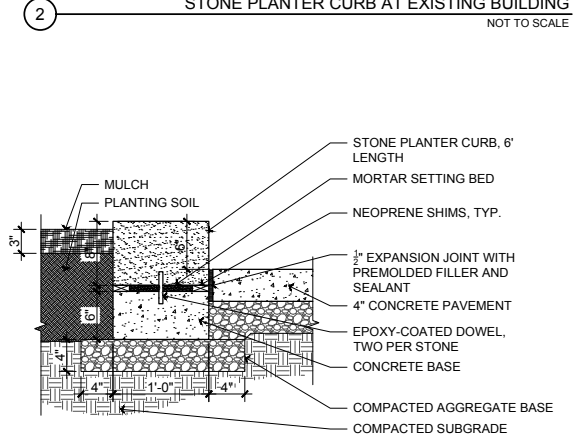
STONE PLANTER CURB TYPICAL JOINTING NOT TO SCALE



STONE PLANTER CURB AT EXISTING BUILDING NOT TO SCALE



STONE PLANTER CURB FOR TYPICAL PLANTER CURB NOT TO SCALE



STONE PLANTER CURB NOT TO SCALE



Know what's below.
Call before you dig.

REVISIONS

NO.	DATE	DESCRIPTION
1		
2		
3		
4		
5		
6		
7		
8		
9		
10		

DATE: 5/22/20 PROJ NUMBER: 7526-19-00 ENG: AMB PROJ LEADER: RAG COUNTY: WAYNE CITY/VILLAGE/TOWNSHIP: DETROIT SCALE: H: 1"=10' V: 1"=4' SHEET: 25 OF 43

DOWNTOWN DETROIT PARTNERSHIP IN COOPERATION WITH THE CITY OF DETROIT
FORT STREET AT CAMPUS MARTIUS
SITE AND LANDSCAPE DETAILS

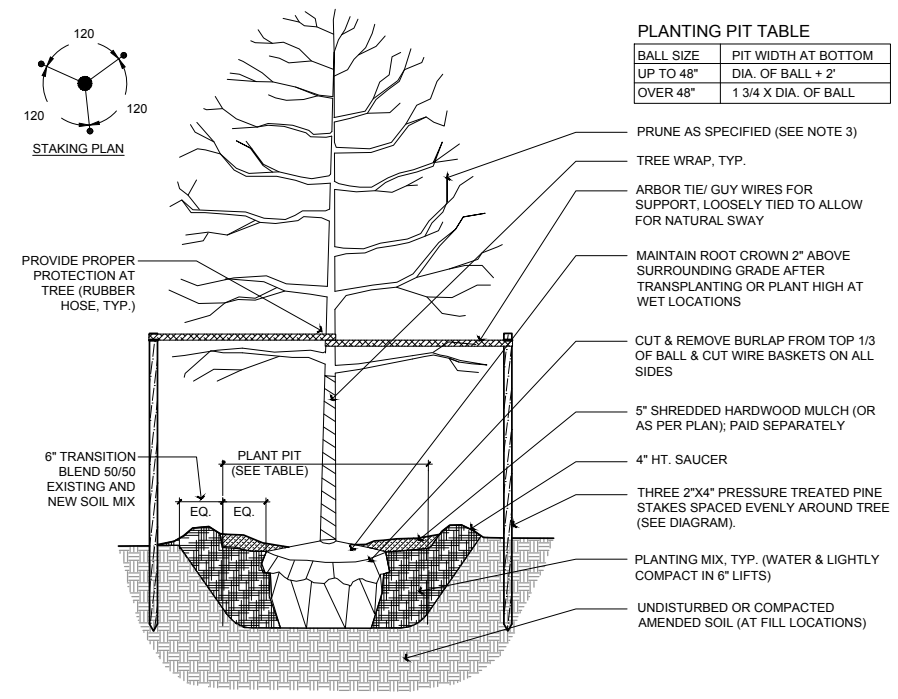
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NOTES:

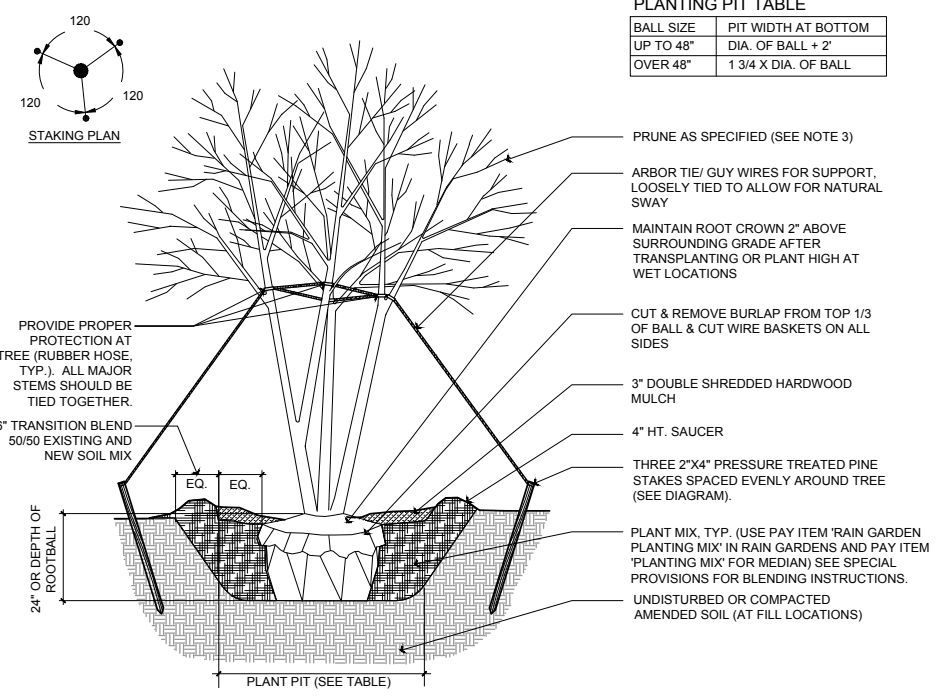
- CONTRACTOR SHALL ASSURE PERCOLATION OF ALL PLANTING PITS PRIOR TO INSTALLATION.
- FINAL TREE STAKING PLACEMENT TO BE APPROVED BY ENGINEER.
- DO NOT HEAVILY PRUNE THE TREE AT PLANTING. PRUNE ONLY CROSSOVER LIMBS, CO-DOMINANT LEADERS, AND BROKEN OR DEAD BRANCHES. SOME INTERIOR TWIGS AND LATERAL BRANCHES MAY ALSO BE PRUNED, HOWEVER, DO NOT REMOVE THE TERMINAL BUDS OF BRANCHES THAT EXTEND TO THE EDGE OF THE CROWN.
- MARK THE NORTH SIDE OF THE TREE IN THE NURSERY, AND ROTATE TREE TO FACE NORTH AT THE SITE WHENEVER POSSIBLE.
- IF PLANT IS SHIPPED WITH A WIRE BASKET AROUND THE ROOT BALL, CUT THE WIRE BASKET IN FOUR PLACES AND FOLD DOWN (8" MIN.) INTO PLANTING HOLE.
- REMOVE ALL TWINE, ROPE, WIRE, AND BURLAP FROM TOP HALF OF ROOTBALL.
- SET TREE PLUMB IN PLANTING PIT.
- EACH TREE MUST BE PLANTED SUCH THAT THE TRUNK FLARE IS VISIBLE AT THE TOP OF THE ROOT BALL. TREES WHERE THE TRUNK FLARE IS NOT VISIBLE SHALL BE REJECTED. DO NOT COVER THE TOP OF THE ROOT BALL WITH SOIL.
- ALL WORK AND MATERIALS TO BE INCLUDED IN THE COST OF THE APPLICABLE TREE PAY ITEM, UNLESS OTHERWISE NOTED.



DECIDUOUS TREE PLANTING
NOT TO SCALE

NOTES:

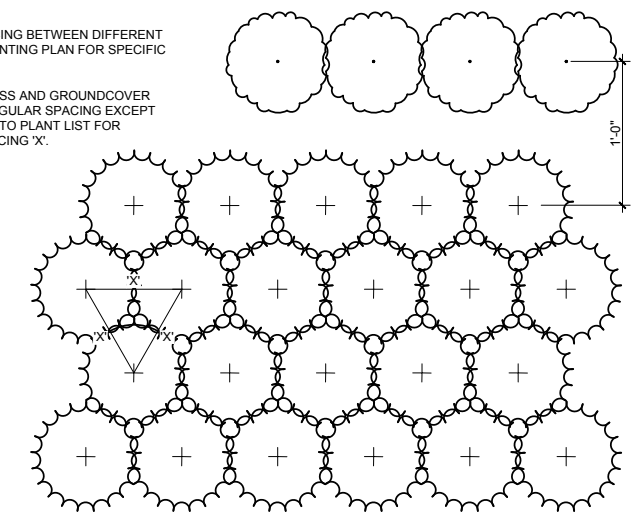
- CONTRACTOR SHALL ASSURE PERCOLATION OF ALL PLANTING PITS PRIOR TO INSTALLATION.
- FINAL TREE STAKING PLACEMENT TO BE APPROVED BY OWNER.
- DO NOT HEAVILY PRUNE THE TREE AT PLANTING. PRUNE ONLY CROSSOVER LIMBS, CO-DOMINANT LEADERS, AND BROKEN OR DEAD BRANCHES. SOME INTERIOR TWIGS AND LATERAL BRANCHES MAY ALSO BE PRUNED, HOWEVER, DO NOT REMOVE THE TERMINAL BUDS OF BRANCHES THAT EXTEND TO THE EDGE OF THE CROWN.
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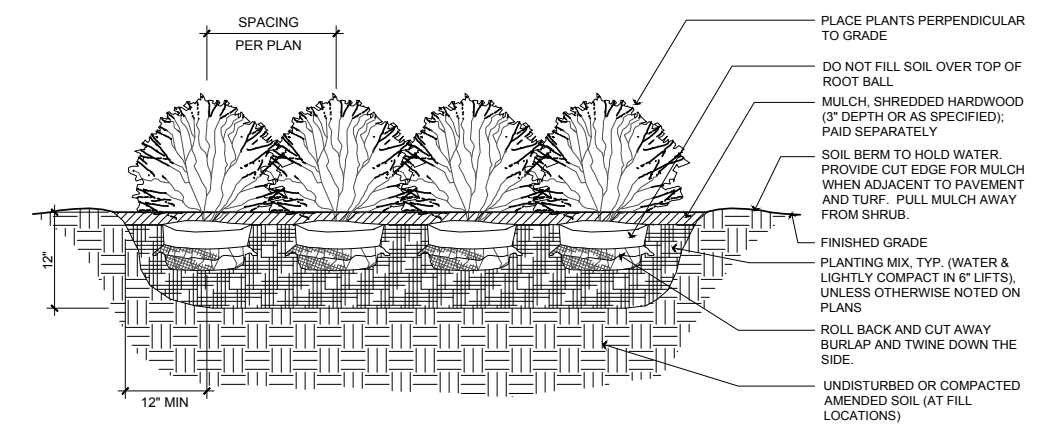
ORNAMENTAL TREE PLANTING
NOT TO SCALE

NOTES:

- PROVIDE MIN. 12" SPACING BETWEEN DIFFERENT PLANT TYPES. SEE PLANTING PLAN FOR SPECIFIC PLANT SPACING.
- ALL ORNAMENTAL GRASS AND GROUNDCOVER MASSES TO USE TRIANGULAR SPACING EXCEPT WHERE NOTED REFER TO PLANT LIST FOR INDIVIDUAL PLANT SPACING 'X'.



3

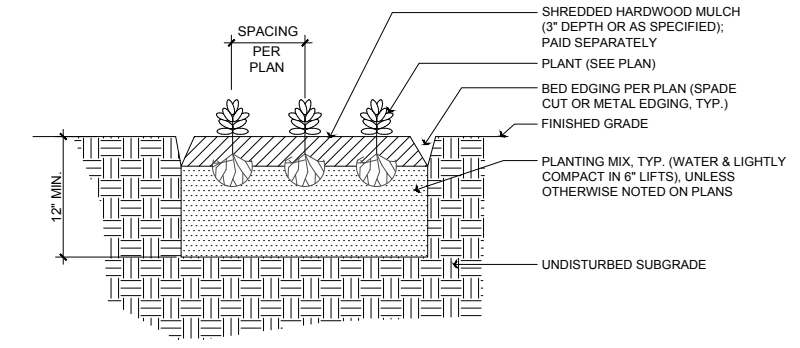


SHRUB AND ORNAMENTAL GRASS PLANTING
NOT TO SCALE

2

NOTES:

- CONTRACTOR TO VERIFY PERCOLATION OF PLANTING PIT PRIOR TO INSTALLATION.
- ALL WORK AND MATERIALS TO BE INCLUDED IN THE COST OF THE APPLICABLE PLANT PAY ITEM, UNLESS OTHERWISE NOTED.



GROUNDCOVER AND PERENNIAL PLANTING
NOT TO SCALE

1



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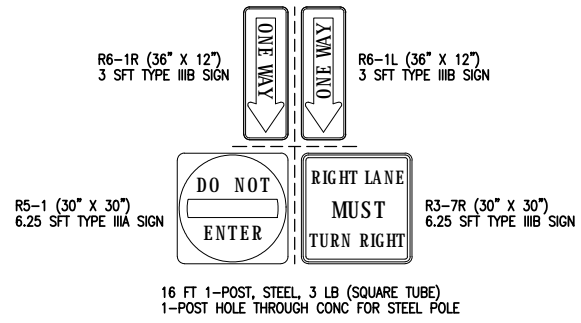
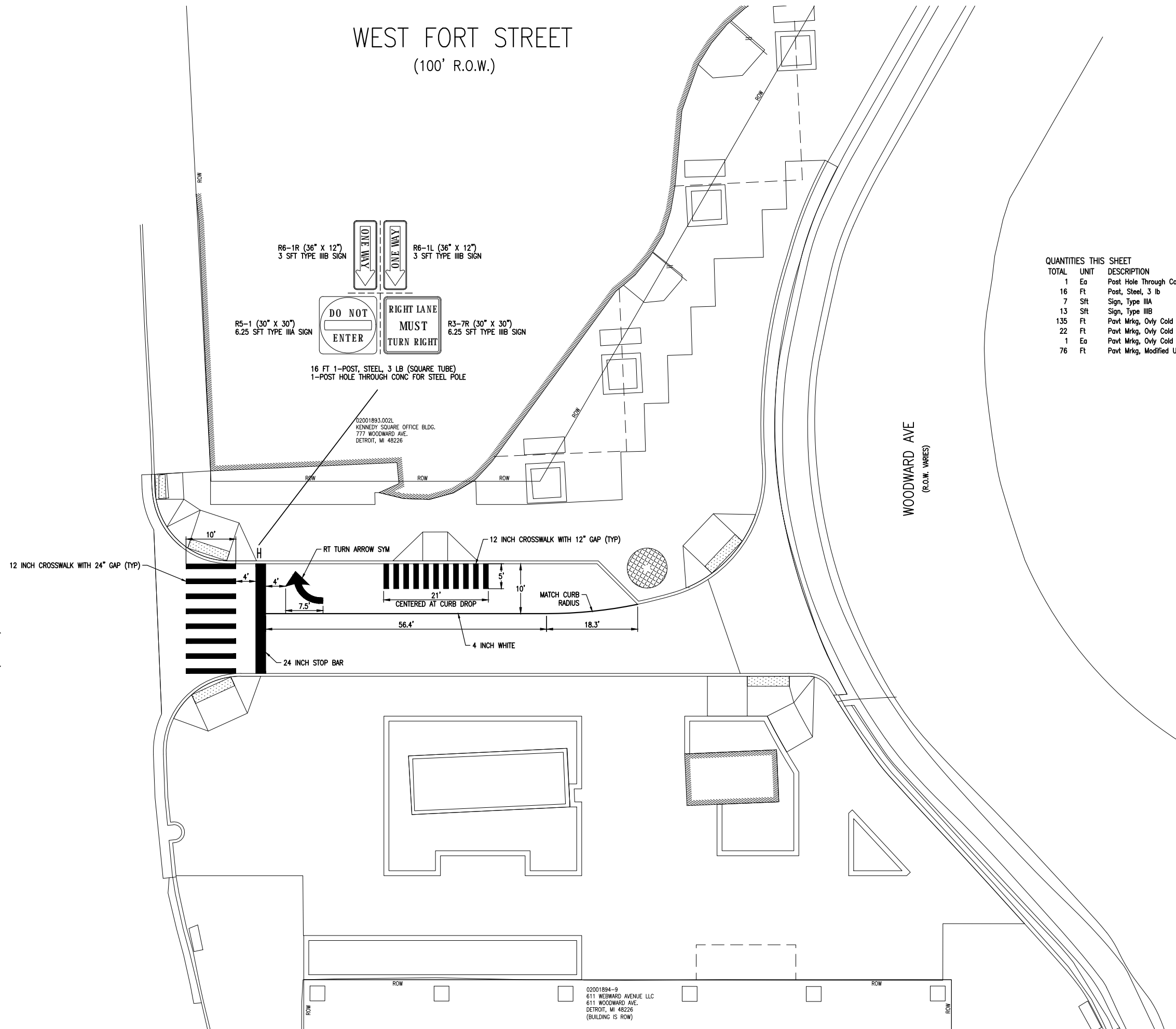
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WEST FORT STREET (100' R.O.W.)

GRISWOLD ST
(90' R.O.W.)

WOODWARD AVE
(R.O.W. VARIES)



QUANTITIES THIS SHEET

TOTAL	UNIT	DESCRIPTION
1	Ea	Post Hole Through Conc for Steel Post
16	Ft	Post, Steel, 3 lb
7	Sft	Sign, Type IIIA
13	Sft	Sign, Type IIIB
135	Ft	Pavt Mrkg, Ovlv Cold Plastic, 12 inch, Crosswalk
22	Ft	Pavt Mrkg, Ovlv Cold Plastic, 24 inch, Stop Bar
1	Ea	Pavt Mrkg, Ovlv Cold Plastic, Rt Turn Arrow Sym
76	Ft	Pavt Mrkg, Modified Urethane, 4 inch, White

02001893.002L
KENNEDY SQUARE OFFICE BLDG.
777 WOODWARD AVE.
DETROIT, MI 48226

02001894-9
611 WEBWARD AVENUE LLC
611 WOODWARD AVE.
DETROIT, MI 48226
(BUILDING IS ROW)

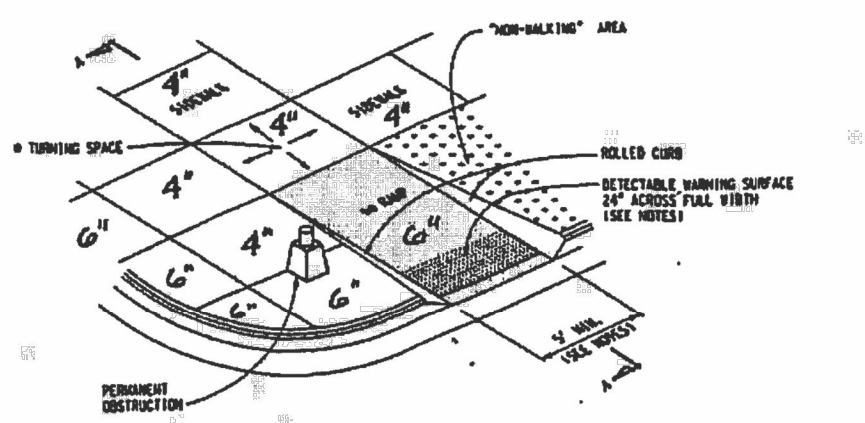


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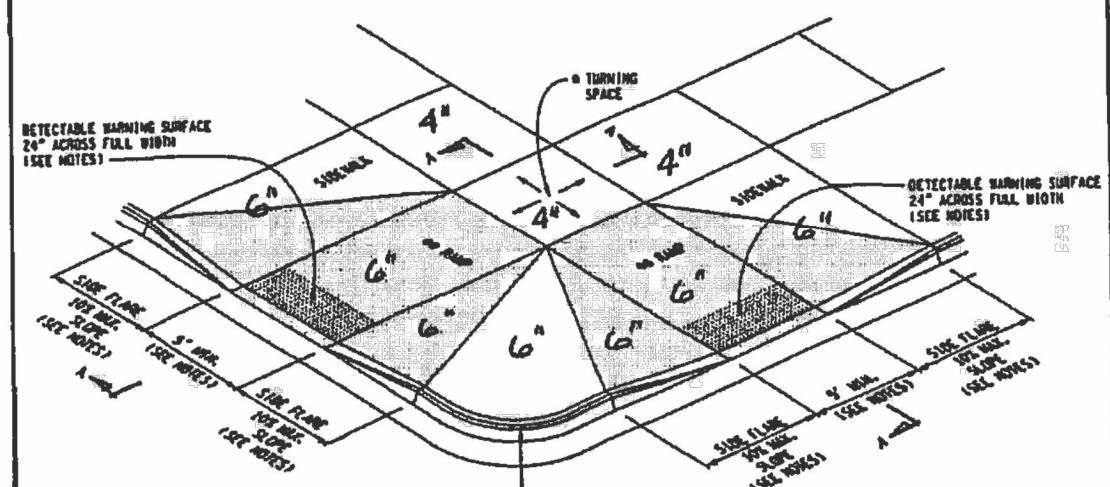
DOWNTOWN DETROIT PARTNERSHIP IN COOPERATION WITH THE CITY OF DETROIT
FORT STREET AT CAMPUS MARTIUS
PAVEMENT MARKING AND SIGNING PLAN

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• MAXIMUM TURNING SPACE SLOPE IS 2.0% IN EACH DIRECTION OF TRAVEL. MINIMUM DIMENSIONS 5' x 5'. SEE NOTES.
 • MAXIMUM RAMP CROSS SLOPE IS 2.0%. RUNNING SLOPE 5% - 7% (0.3% MAXIMUM). SEE NOTES.



SIDEWALK RAMP TYPE R
(ROLLED SIDES)



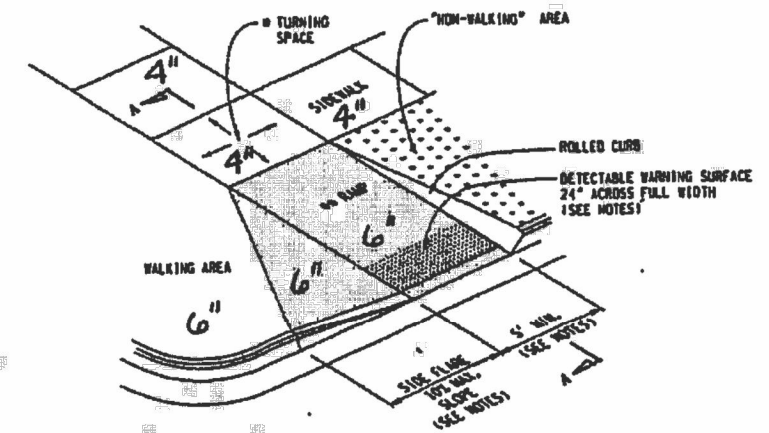
SIDEWALK RAMP TYPE F
(FLARED SIDES, TWO RAMPS SHOWN)



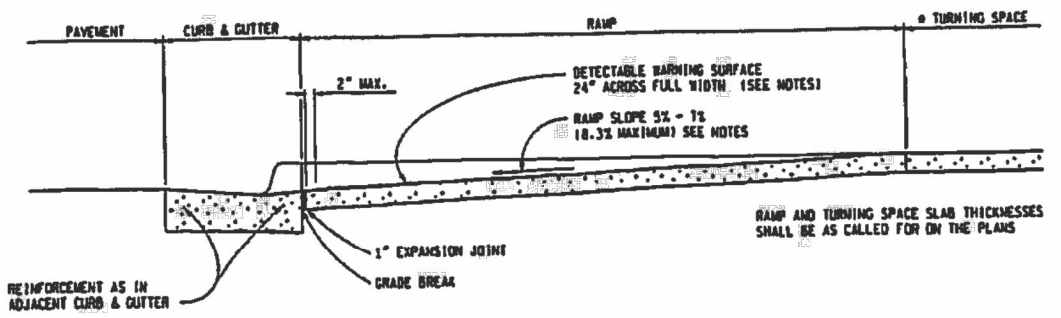
CITY OF DETROIT

DEPARTMENT OF PUBLIC WORKS, CITY ENGINEERING DIVISION
**SIDEWALK RAMP AND
 DETECTABLE WARNING DETAILS**
 R-28-1 WITH CITY OF DETROIT
 THICKNESS AMENDMENT
 4/19/2017 SHEET 1 OF 7

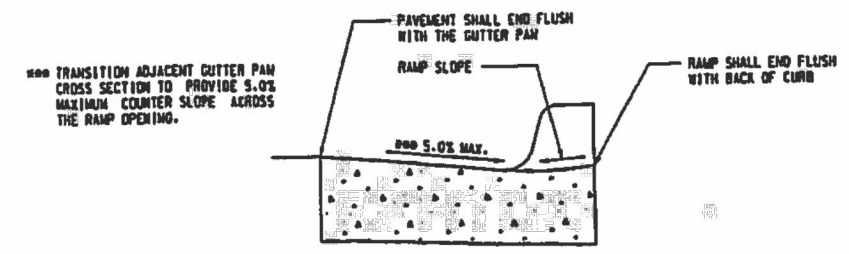
• MAXIMUM TURNING SPACE SLOPE IS 2.0% IN EACH DIRECTION OF TRAVEL. MINIMUM DIMENSIONS 5' x 5'. SEE NOTES.
 • MAXIMUM RAMP CROSS SLOPE IS 2.0%. RUNNING SLOPE 5% - 7% (0.3% MAXIMUM). SEE NOTES.



SIDEWALK RAMP TYPE RF
(ROLLED / FLARED SIDES)



SECTION A-A

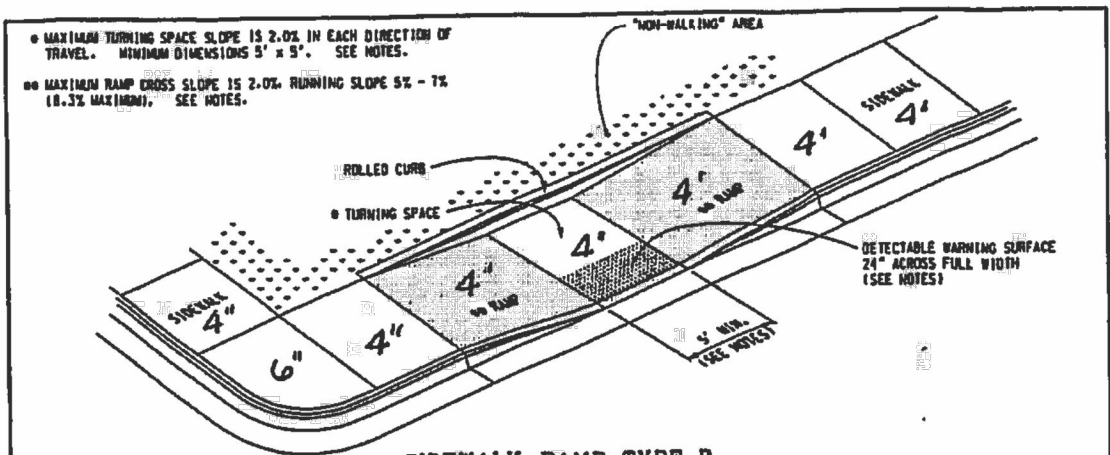


SECTION THROUGH CURB CUT
(TYPICAL ALL RAMP TYPES)

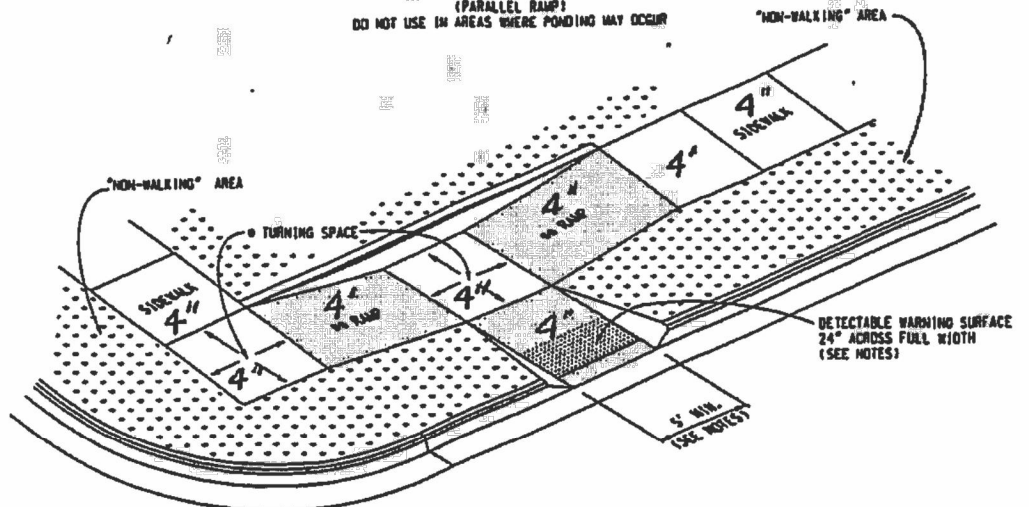


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**SIDEWALK RAMP AND
 DETECTABLE WARNING DETAILS**
 R-28-1 WITH CITY OF DETROIT
 THICKNESS AMENDMENT
 4/19/2017 SHEET 2 OF 7

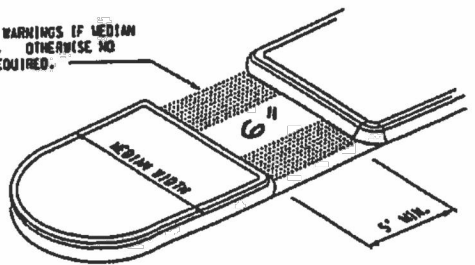


SIDEWALK RAMP TYPE P
 (PARALLEL RAMP)
 DO NOT USE IN AREAS WHERE PONDING MAY OCCUR



SIDEWALK RAMP TYPE C
 (COMBINATION RAMP)

USE 24" DEEP DETECTABLE WARNINGS IF MEDIAN WIDTH IS AT LEAST 6'-0". OTHERWISE NO DETECTABLE WARNING IS REQUIRED.



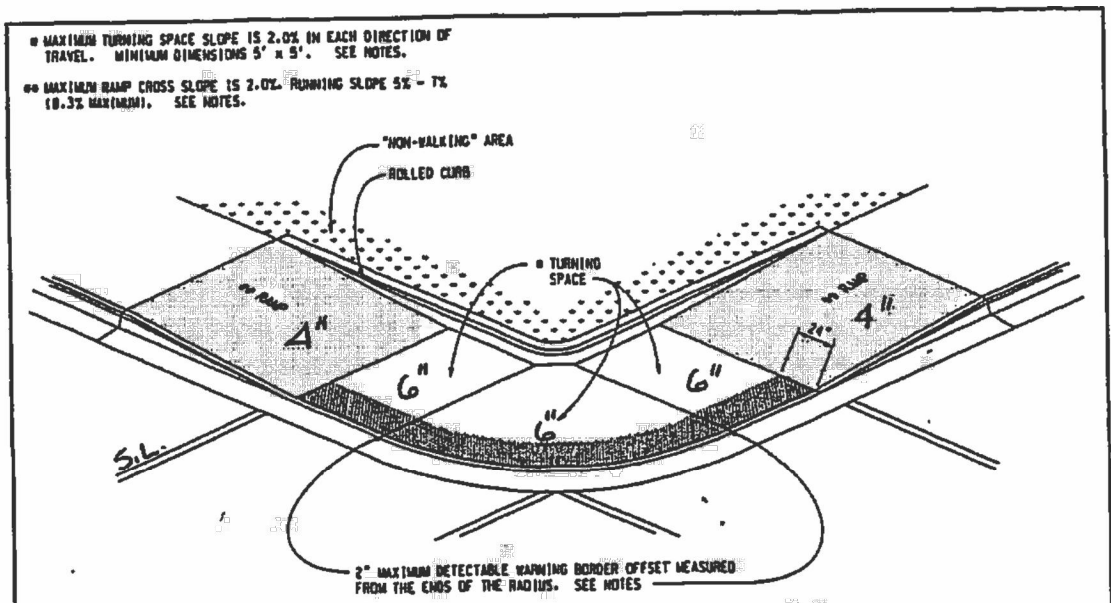
SIDEWALK RAMP TYPE M

DEPARTMENT OF PUBLIC WORKS, CITY ENGINEERING DIVISION

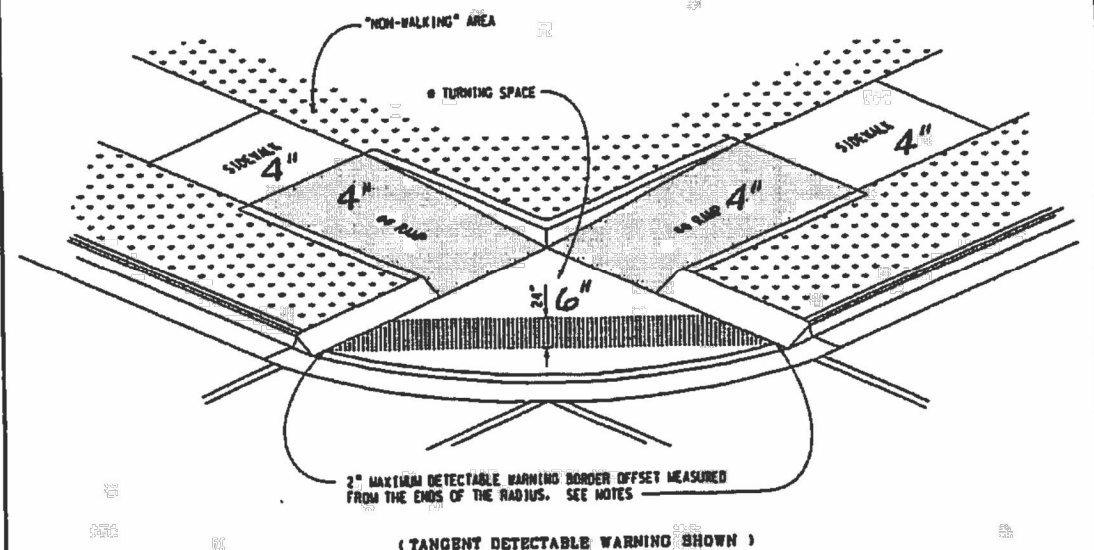
**SIDEWALK RAMP AND
 DETECTABLE WARNING DETAILS**

R-28-1 WITH CITY OF DETROIT
 THICKNESS AMENDMENT

4/19/2017 SHEET 3 OF 7



SIDEWALK RAMP TYPE D
 (DEPRESSED CORNER)



SIDEWALK RAMP TYPE D
 (DEPRESSED CORNER)

DEPARTMENT OF PUBLIC WORKS, CITY ENGINEERING DIVISION

**SIDEWALK RAMP AND
 DETECTABLE WARNING DETAILS**

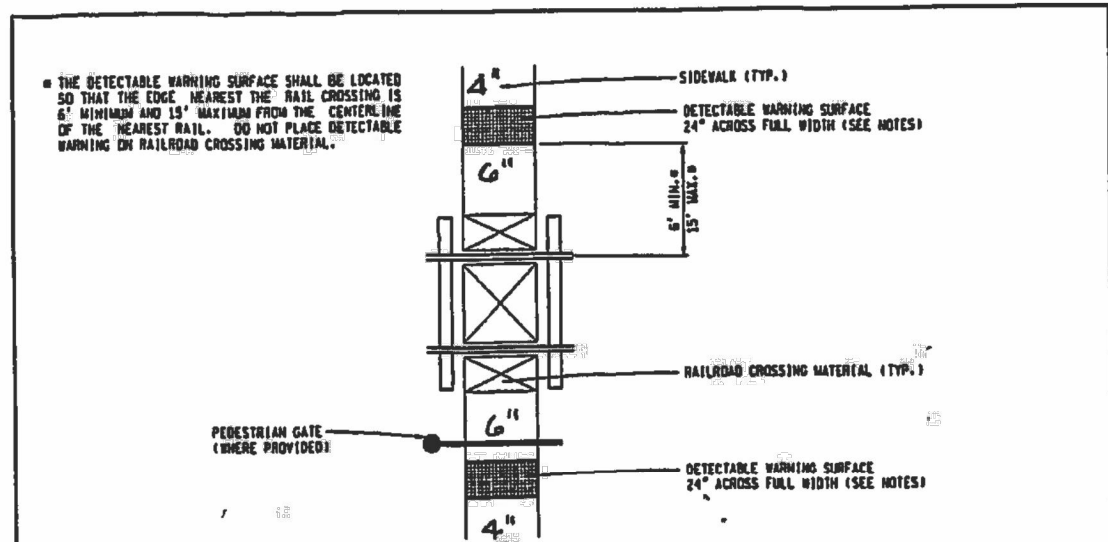
R-28-1 WITH CITY OF DETROIT
 THICKNESS AMENDMENT

4/19/2017 SHEET 4 OF 7

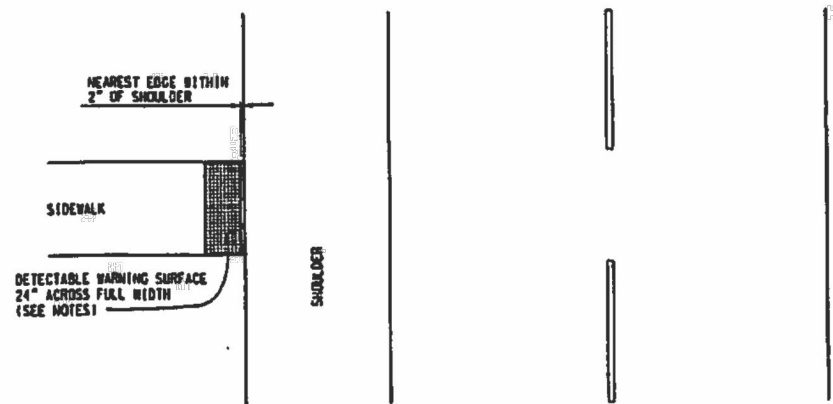
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DATE: 4/19/2017 PROJ NUMBER: 7528-19-010 ENG: AMB PROJ LEAD: RAG COUNTY: WAYNE CITY/VILLAGE/TOWNSHIP: DETROIT SCALE: 1"=1'-0" STATE: MI PROJECT: DOWNTOWN DETROIT PARTNERSHIP IN COOPERATION WITH THE CITY OF DETROIT FORT STREET AT CAMPUS MARTIUS CITY OF DETROIT CED DETAILS

DRAWING PATH: P:\7501_7600\7628\90010_Campus_Martius_Fort_St_Xing\Drawings\Civil\Details\900100DET_CED.dwg May 26, 2020 - 12:37pm



DETECTABLE WARNING AT RAILROAD CROSSING



DETECTABLE WARNING AT FLUSH SHOULDER OR ROADWAY

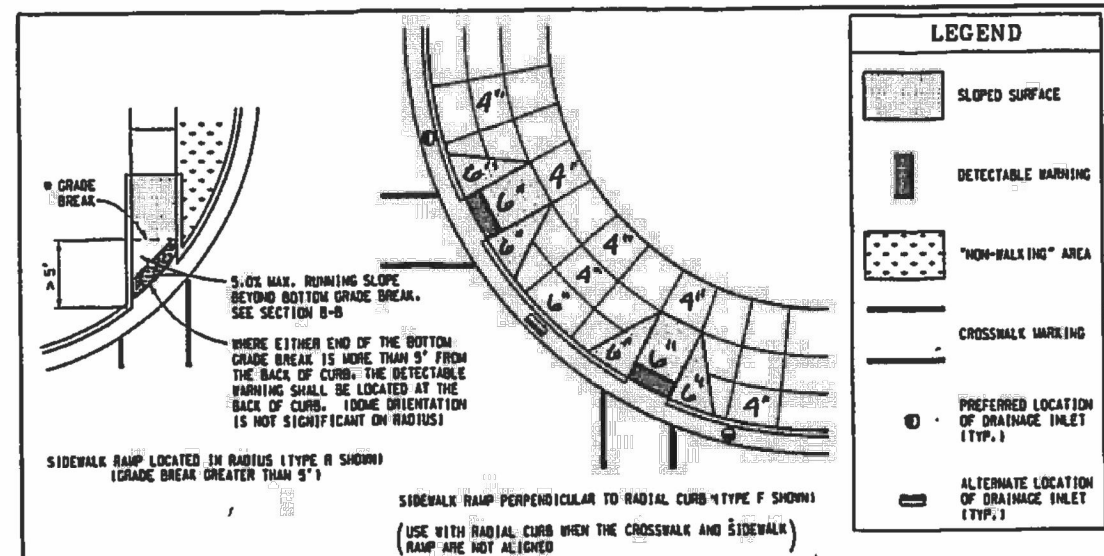


CITY OF DETROIT

DEPARTMENT OF PUBLIC WORKS, CITY ENGINEERING DIVISION
**SIDEWALK RAMP AND
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 R-28-1 WITH CITY OF DETROIT
 THICKNESS AMENDMENT

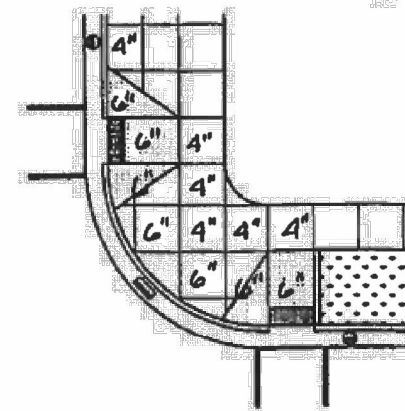
4/19/2017

SHEET 5 OF 7

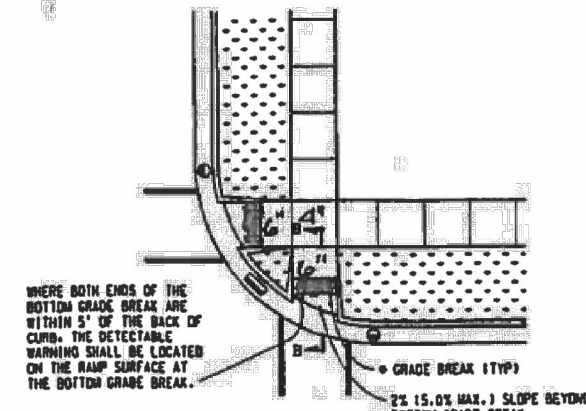


SIDEWALK RAMP LOCATED IN RADIUS (TYPE R SHOWN)
 (GRADE BREAK GREATER THAN 5')

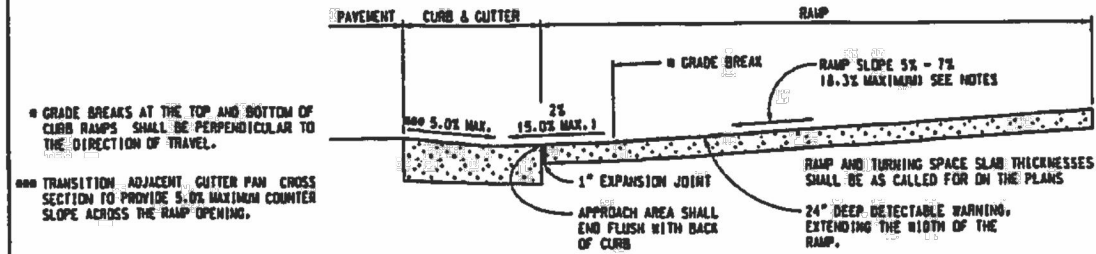
SIDEWALK RAMP PERPENDICULAR TO RADIAL CURB (TYPE F SHOWN)
 (USE WITH RADIAL CURB WHEN THE CROSSWALK AND SIDEWALK
 RAMP ARE NOT ALIGNED)



SIDEWALK RAMP PERPENDICULAR TO TANGENT CURB
 (TYPE F AND TYPE RF SHOWN)



SIDEWALK RAMP LOCATED IN RADIUS (TYPE R SHOWN)
 (GRADE BREAK LESS THAN 5')



**SECTION B-B
 SIDEWALK RAMP ORIENTATION**



CITY OF DETROIT

DEPARTMENT OF PUBLIC WORKS, CITY ENGINEERING DIVISION
**SIDEWALK RAMP AND
 DETECTABLE WARNING DETAILS**
 R-28-1 WITH CITY OF DETROIT
 THICKNESS AMENDMENT

4/19/2017

SHEET 6 OF 7

REVISIONS

NO. DATE

BY

DESCRIPTION

SCALE

DATE

CITY/VILLAGE/TOWNSHIP

DETOIT

COUNTY

WAYNE

CADD

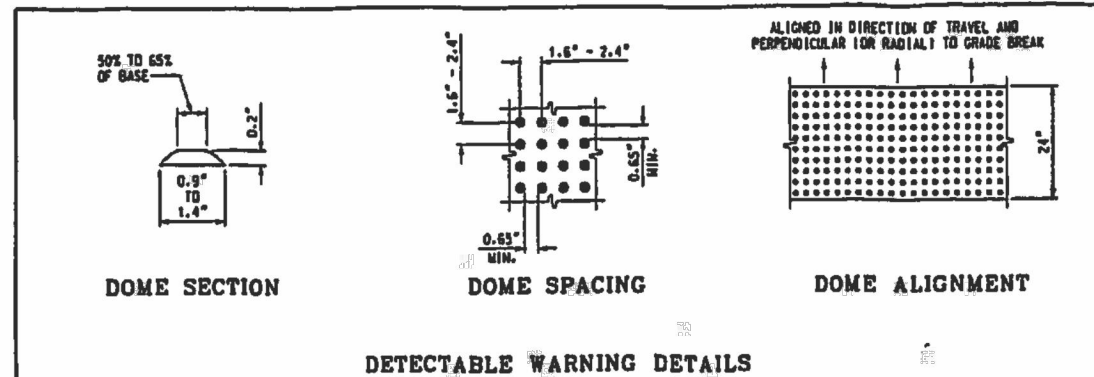
PROJ. NO.

ENG.

DATE

SHEET

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NOTES:

DETAILS SPECIFIED ON THIS PLAN APPLY TO ALL CONSTRUCTION, RECONSTRUCTION, OR ALTERATION OF STREETS, CURBS, OR SIDEWALKS IN THE PUBLIC RIGHT OF WAY.

SIDEWALK RAMP ARE TO BE LOCATED AS SPECIFIED ON THE PLANS OR AS DIRECTED BY THE ENGINEER.

RAMP SHALL BE PROVIDED AT ALL CORNERS OF AN INTERSECTION WHERE THERE IS EXISTING OR PROPOSED SIDEWALK AND CURB. RAMP SHALL ALSO BE PROVIDED AT MARKED AND/OR SIGNALIZED MID-BLOCK CROSSINGS.

SURFACE TEXTURE OF THE RAMP SHALL BE THAT OBTAINED BY A COARSE BROOMING, TRANSVERSE TO THE RUNNING SLOPE.

SIDEWALK SHALL BE RAMPED WHERE THE DRIVEWAY CURB IS EXTENDED ACROSS THE WALK.

CARE SHALL BE TAKEN TO ASSURE A UNIFORM GRADE ON THE RAMP. WHERE CONDITIONS PERMIT, IT IS DESIRABLE THAT THE SLOPE OF THE RAMP BE IN ONLY ONE DIRECTION, PARALLEL TO THE DIRECTION OF TRAVEL.

RAMP WIDTH SHALL BE INCREASED, IF NECESSARY, TO ACCOMMODATE SIDEWALK SNOW REMOVAL EQUIPMENT NORMALLY USED BY THE MUNICIPALITY.

PROVIDE TURNING SPACES WHERE PEDESTRIAN TURNING MOVEMENTS ARE REQUIRED.

WHEN 5' MINIMUM WIDTHS ARE NOT FEASIBLE, RAMP WIDTH MAY BE REDUCED TO NOT LESS THAN 4' AND TURNING SPACES TO NOT LESS THAN 4' x 4'.

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FOR NEW ROADWAY CONSTRUCTION, THE RAMP CROSS SLOPE MAY NOT EXCEED 2.0%. FOR ALTERATIONS TO EXISTING ROADWAYS, THE CROSS SLOPE MAY BE TRANSITIONED TO MEET AN EXISTING ROADWAY GRADE. THE CROSS SLOPE TRANSITION SHALL BE APPLIED UNIFORMLY OVER THE FULL LENGTH OF THE RAMP.

THE MAXIMUM RUNNING SLOPE OF 0.3% IS RELATIVE TO A FLAT 10% REFERENCE, HOWEVER, IT SHALL NOT REQUIRE ANY RAMP OR SERIES OF RAMP TO EXCEED 15 FEET IN LENGTH.

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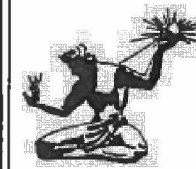
TRANSITION THE GUTTER PAN CROSS SECTION SUCH THAT THE COUNTER SLOPE IN THE DIRECTION OF RAMP TRAVEL IS NOT GREATER THAN 5.0%. MAINTAIN THE NORMAL GUTTER PAN CROSS SECTION ACROSS DRAINAGE STRUCTURES.

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CROSSWALK AND STOP LINE MARKINGS, IF USED, SHALL BE SO LOCATED AS TO STOP TRAFFIC SHORT OF RAMP CROSSINGS. SPECIFIC DETAILS FOR MARKING APPLICATIONS ARE GIVEN IN THE "MICHIGAN MANUAL OF UNIFORM TRAFFIC CONTROL DEVICES".

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CITY OF DETROIT

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SIDEWALK RAMP AND
DETECTABLE WARNING DETAILS
R-28-1 WITH CITY OF DTRUIT
THICKNESS AMENDMENT

4/19/2017

SHEET 7 OF 7

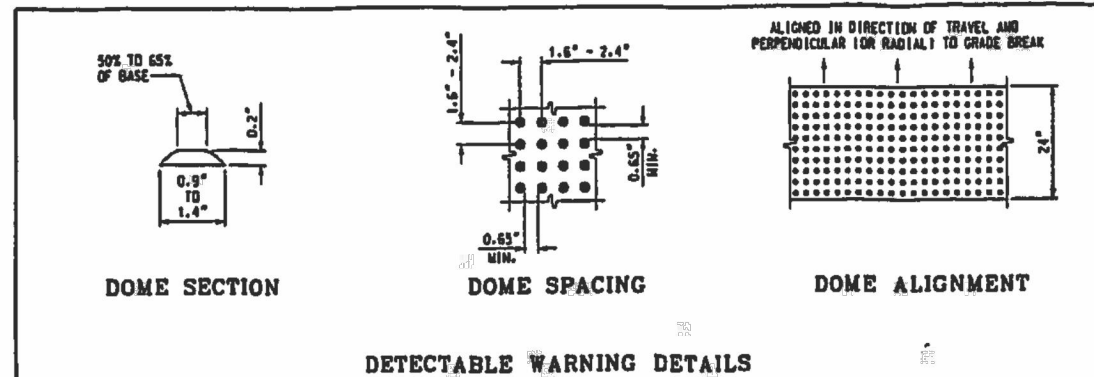
REVISIONS

DATE: 5/22/20
PROJ NUMBER: 7528-19-010
ENG: AMB
PROJ LEADER: RAG
CADD: SM
COUNTY: WAYNE
CITY/VILLAGE/TOWNSHIP: DETROIT
SCALE: 1"=10'
H: 1/4"
V: 1/4"
NAD: 83
NAD83: 83
VERT DATUM: DETROIT
HORIZONTAL DATUM: DETROIT

**DOWNTOWN DETROIT PARTNERSHIP IN COOPERATION WITH THE CITY OF DETROIT
FORT STREET AT CAMPUS MARTIUS
CITY OF DETROIT CED DETAILS**

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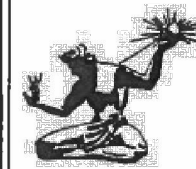
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SIDEWALK RAMP AND
DETECTABLE WARNING DETAILS
R-28-1 WITH CITY OF DTRUIT
THICKNESS AMENDMENT

4/19/2017

SHEET 7 OF 7

REVISIONS: ...
DATE: 5/22/20
PROJ NUMBER: 7528-15-010
ENG: AMB
PROJ LEADER: RAG
CADD: SM
COUNTY: WAYNE
CITY/VILLAGE/TOWNSHIP: DETROIT
SCALE: 1"=10'
SHEET: 7 OF 7

DOWNTOWN DETROIT PARTNERSHIP IN COOPERATION WITH THE CITY OF DETROIT
FORT STREET AT CAMPUS MARTIUS
CITY OF DETROIT CED DETAILS

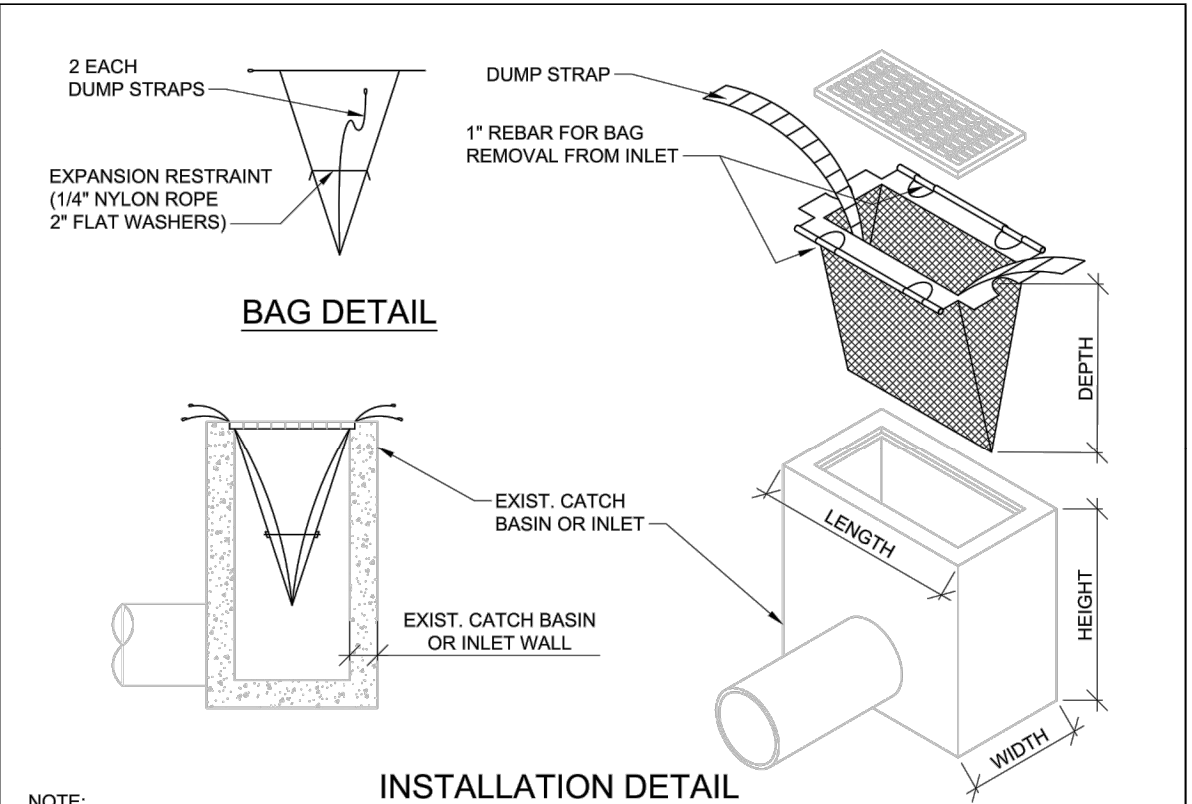
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REVISIONS	NO.	DATE	DESCRIPTION

DATE	PROJ. NUMBER	ENG	PROJ. NUMBER	CAD	COUNTY	CITY/VILLAGE/TOWNSHIP	SCALE	SCALE	H	V	DATE	DATE
5/22/20	7526-1000	AMB	7526-1000	301	WAYNE	DETROIT	1"=10'	1"=10'				


DOWNTOWN DETROIT PARTNERSHIP IN COOPERATION WITH THE CITY OF DETROIT
FORT STREET AT CAMPUS MARTIUS
CITY OF DETROIT DWSD DETAILS

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- NOTE:**
TEMPORARY INLET SEDIMENT FILTER TO BE INSTALLED ON ALL PAVED CATCH BASINS OR STORM INLETS. SEDIMENT FILTERS TO BE SIMILAR TO:
- "SILTSACK" TYPE B, REGULAR FLOW, BY ACF ENVIRONMENTAL, INC.
 - "INLET PRO SEDIMENT BAG", STANDARD FLOW, WITH OPTIONAL FOAM DEFLECTOR BY HANES GEO COMPONENTS.
 - "DANDY CURB SACK" BY DANDY PRODUCTS, INC.
 - "BASIN BAG", REGULAR FLOW BY CSI GEOTURF, CLEAN FILTER AS NEEDED.

- GENERAL NOTES**
- CONTRACTOR SHALL OBTAIN PERMISSION OF THE ENFORCING ROAD AGENCY BEFORE THIS TYPE OF CONTROL IS CONSTRUCTED IN THE ROAD RIGHT-OF-WAY.
 - CONTRACTOR SHALL KEEP CURBS & GUTTER INLET FILTERS (AFTER PAVING) IN PLACE UNTIL ALL AREAS CONTRIBUTING TO THEM ARE STABILIZED WITH VEGETATION.
 - CONTRACTOR SHALL PERFORM WEEKLY INSPECTION AND MAINTENANCE TO ENSURE THAT THE CURB & GUTTER INLET FILTER (AFTER PAVING) OPERATES EFFICIENTLY.

<p style="text-align: center;">INLET PROTECTION FABRIC DROP</p>			 <p>CITY OF DETROIT WATER AND SEWERAGE DEPARTMENT ENGINEERING DIVISION</p>	
			SCALE NONE	SHEET 1 OF 1
REV	DESCRIPTION	DATE	DATE	DWG. No.
			09/2018	015713-05

SOIL EROSION AND SEDIMENTATION CONTROL TEMPORARY FACILITIES


THE CONTRACTOR SHALL CONSTRUCT THIS PROJECT IN COMPLIANCE WITH PART 91 OF ACT NO. 451 OF 1994, NATURAL RESOURCES AND ENVIRONMENTAL PROTECTION ACT, OF THE MICHIGAN COMPILED LAWS ENTITLED "SOIL EROSION AND SEDIMENTATION CONTROL" UNDER THE CONTROL OF THE LOCAL PERMIT AGENCY CHARGED WITH ADMINISTERING THE PROVISIONS OF THIS ACT. THE CONTRACTOR SHALL FOLLOW THE PROCEDURES DELINEATED BELOW AND CONSTRUCT AND MAINTAIN THE FACILITIES SHOWN ON THE DRAWINGS TO CONTROL WATER AND WIND EROSION DURING CONSTRUCTION OF THIS PROJECT.

ALL DISTURBED SURFACE AREA (INCLUDING UTILITY TRENCHES) SHALL BE TEMPORARILY GRADED AND/OR DITCHED TO DIRECT ALL WATER RUNOFF FROM SUCH AREAS TO SEDIMENTATION CONTROL DEVICES WHICH WILL PREVENT WATER CARRYING ERODED SOIL FROM ENTERING A WATERCOURSE, SEWER, OR ADJACENT LANDS. SUCH SEDIMENTATION CONTROL DEVICES SHALL INCLUDE BUT NOT BE LIMITED TO PROTECTIVE DITCHES, SEDIMENT TRAPS, SEDIMENT FILTERS, DITCH TRAPS, PIPE BARRIERS, AND FILTERS AS DETAILED AND REQUIRED AND WHERE INDICATED ON THE DRAWINGS. AFTER THE PROJECT WORK HAS BEEN COMPLETED, INSPECTED, AND APPROVED, THE CONTRACTOR SHALL REMOVE ALL SEDIMENTATION CONTROL DEVICES, MATERIAL, AND THEIR COLLECTED SILT AND DEBRIS AND RESTORE THE AREA IN ACCORDANCE WITH THE DRAWINGS.

IN ROADWAY AREAS TEMPORARY AGGREGATE SURFACING SHALL BE PLACED IMMEDIATELY AFTER THE BACKFILLING OPERATION HAS BEEN COMPLETED. POSITIVE DUST CONTROL MEASURES SHALL BE TAKEN AT ALL TIMES.

PERMANENT STABILIZATION SHALL BE COMPLETED WITHIN 5 DAYS OF FINAL EARTH CHANGE. FINAL CLEANUP AND RESTORATION WILL CONSIST OF FINAL GRADING, TOPSOILING, SEEDING AND MULCHING AND/OR SODDING OF ALL DISTURBED AREAS OF THE PROJECT.

IF SEASONAL CONDITIONS PREVENT FINAL CLEANING AND RESTORATION, THE CONTRACTOR SHALL PROCEED WITH TEMPORARY STABILIZATION OF THE DISTURBED AREA. TEMPORARY STABILIZATION SHALL CONSIST OF ROUGH GRADING THE DISTURBED AREA IN ACCORDANCE WITH THESE SPECIFICATIONS. TEMPORARY STABILIZATION MATERIALS SHALL BE REMOVED AND DISPOSED OF AND FINAL CLEANUP AND RESTORATION SHALL BE COMPLETED NOT LATER THAN 5 DAYS AFTER SEASONAL CONDITIONS ALLOW PERFORMANCE OF THE REQUIRED WORK.

<p style="text-align: center;">SOIL EROSION SEDIMENTATION CONTROL, TEMPORARY FACILITIES</p>			 <p>CITY OF DETROIT WATER AND SEWERAGE DEPARTMENT ENGINEERING DIVISION</p>	
			SCALE NONE	SHEET 1 OF 1
REV	DESCRIPTION	DATE	DATE	DWG. No.
			09/2018	015713-10

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SOIL EROSION AND SEDIMENTATION CONTROL MAINTENANCE NOTES

THE CONTRACTOR SHALL INSPECT SOIL EROSION AND SEDIMENTATION CONTROL DEVICES WEEKLY AND WITHIN 24 HOURS OF A SIGNIFICANT RAIN EVENT. THE CONTRACTOR SHALL BE RESPONSIBLE FOR MAINTAINING THE SOIL EROSION AND SEDIMENTATION CONTROL DEVICES.

MAINTENANCE INCLUDES ALL WORK NECESSARY FOR PROPER OPERATION OF THE DEVICES. DEVICES WHICH CAN NOT BE REPAIRED MAY NEED TO BE REPLACED. MAINTENANCE OF THE DEVICES SHALL BE PERFORMED WITHIN 24 HOURS OF INSPECTION.


SEDIMENT SHALL BE REMOVED AS NECESSARY TO MAINTAIN THE EFFECTIVENESS OF SOIL EROSION AND SEDIMENTATION CONTROL DEVICES.

SEDIMENT DEPOSITED ALONG SILT FENCE SHALL BE REMOVED WHEN IT REACHES 1/3 TO 1/2 THE HEIGHT OF THE FENCE.

TURF ESTABLISHMENT MEASURES SHALL BE MAINTAINED AS WOULD ANY OTHER DEVICES PRIOR TO ESTABLISHMENT OF PERMANENT TURF.

ALL MUD, DIRT AND DEBRIS TRACKED ONTO EXISTING ROADS FROM THIS SITE SHALL BE PROMPTLY REMOVED BY THE CONTRACTOR.

CONTRACTOR SHALL ENSURE THAT SOIL EROSION AND SEDIMENTATION CONTROL MEASURES PROTECT AGAINST LOSS OF SOIL BY THE ACTION OF WATER, ICE, GRAVITY OR WIND.

			 <p>CITY OF DETROIT WATER AND SEWERAGE DEPARTMENT ENGINEERING DIVISION</p>	SCALE NONE	SHEET 1 OF 1
				DATE 09/2018	SHEET 015713-11
				DATE 09/2018	DWG. No.
REV	DESCRIPTION	DATE			
REVISIONS					

SUMMARY OF BASIC PRINCIPLES:

1. KEEP DISTURBED AREA AS SMALL AS POSSIBLE.
2. STABILIZE AND/OR PROTECT DISTURBED AREAS AS SOON AS POSSIBLE.
3. KEEP STORM WATER RUNOFF VELOCITIES LOW.
4. RETAIN SEDIMENT WITHIN IMMEDIATE CONSTRUCTION AREA.

THE PURPOSE OF THIS PLAN IS TO SPECIFY METHODS FOR TEMPORARY EROSION CONTROL DURING CONSTRUCTION. IT IS INTENDED THAT MEASURES CALLED FOR IN THE SPECIFICATIONS AND SHOWN ON THESE STANDARD DETAILS PLANS BE STRICTLY ADHERED TO. IT SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR TO ASSURE THAT CONSTRUCTION PROCEDURES UNDERTAKEN BE IN CONFORMANCE WITH THE STATE OF MICHIGAN ACT 451 OF 1994 PART 91, SOIL EROSION AND SEDIMENTATION CONTROL.

ALL SOIL EROSION AND SEDIMENTATION CONTROL DEVICES SHALL BE REGULARLY MAINTAINED BY THE CONTRACTOR THROUGHOUT THE DURATION OF THE PROJECT. COLLECTED SILT AND SEDIMENTATION SHALL BE REMOVED PERIODICALLY TO MAINTAIN THE EFFECTIVENESS OF THE SILT TRAPS OR SEDIMENTATION CONTROL DEVICES. WHERE REQUIRED, THE CONTRACTOR SHALL REPLACE FILTER MATERIALS WHICH HAVE BECOME INEFFECTIVE DUE TO CONTAMINATION OR PHYSICAL DETERIORATION.


IF POSSIBLE, NO GRUBBING SHOULD BE DONE WITHIN 30' OF AN ACTIVE WATERCOURSE.

AGGREGATES PLACED IN STREAMS SHOULD CONTAIN A MINIMUM OF FINES. AS A GENERAL RULE FOR DAMS IN SMALL STREAMS, AT LEAST 50 STONE SHOULD BE 6" DIAMETER OR LARGER. 3" OR LARGER STONE SHALL BE USED FOR LINING STREAM BOTTOMS WHERE LINING IS REQUIRED.

ALL TEMPORARY EROSION CONTROL FACILITIES SHOULD BE REMOVED BY THE CONTRACTOR AT THE COMPLETION OF CONSTRUCTION UNLESS ORDERED BY THE ENGINEER TO BE LEFT IN PLACE. CARE SHALL BE TAKEN DURING REMOVAL TO MINIMIZE SILTATION IN NEARBY DRAINAGE COURSES.

SURFACE DISRUPTION IN ADVANCE OF CONSTRUCTION INCLUDING CLEARING, GRADING OR SIGNIFICANT SOD REMOVAL SHALL BE LIMITED AS FOLLOWS, UNLESS PERMISSION IS OTHERWISE OBTAINED FROM THE GOVERNING AGENCY:

- A. WET WEATHER SEASON (MARCH, APRIL, MAY) - 5 DAYS PRIOR TO BEGINNING ANY EARTH CHANGE ACTIVITY.
- B. DRY WEATHER SEASON (JUNE, JULY, AUGUST, SEPTEMBER, OCTOBER, NOVEMBER) - 10 DAYS PRIOR TO BEGINNING ANY EARTH CHANGE ACTIVITY.
- C. COLD WEATHER SEASON (DECEMBER, JANUARY, FEBRUARY) - 15 DAYS PRIOR TO BEGINNING ANY EARTH CHANGE ACTIVITY.


			 <p>CITY OF DETROIT WATER AND SEWERAGE DEPARTMENT ENGINEERING DIVISION</p>	SCALE NONE	SHEET 1 OF 1
				DATE 09/2018	SHEET 015713-12
				DATE 09/2018	DWG. No.
REV	DESCRIPTION	DATE			
REVISIONS					

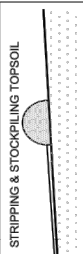
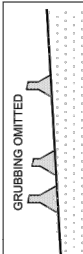
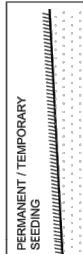


REVISIONS
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DATE: 5/22/20
PROJ NUMBER: 7526-19-00
ENG: AMB
PROJ LEADER: RAG
CADD: SM
COUNTY: WAYNE
CITY/VILLAGE/TOWNSHIP: DETROIT
SCALE: H: 1"=10' V: 1"=4'
HORIZONTAL DATUM: NAD83
VERTICAL DATUM: DETROITICS
REVISIONS:

**DOWNTOWN DETROIT PARTNERSHIP IN COOPERATION WITH THE CITY OF DETROIT
FORT STREET AT CAMPUS MARTIUS
CITY OF DETROIT DWSD DETAILS**


REV	DESCRIPTION	DATE
REVISIONS		

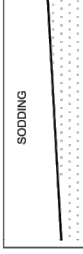
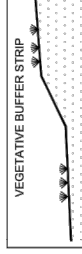

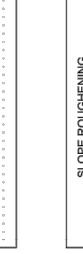
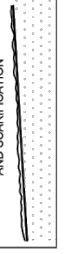
 <p>CITY OF DETROIT WATER AND SEWERAGE DEPARTMENT ENGINEERING DIVISION</p>		<p>SCALE NONE</p> <p>DATE 09/2018</p> <p>DWG. No.</p>
<p>SOIL EROSION AND SEDIMENTATION CONTROL MEASURES (FROM 1-5)</p>		<p>1 OF 7 SHEET</p> <p>015713-13</p>

KEY	DETAILS	CHARACTERISTICS
1		TOPSOIL MAY BE STOCKPILED ABOVE BORROW AREAS TO ACT AS A DIVERSION. STOCKPILE SHOULD BE TEMPORARILY SEEDED. AVOID EXTENSIVE AND UNNECESSARY CLEARING OF TOPSOIL.
2		SAVES COST OF GRUBBING. PROVIDES NEW SPROUTS. RETAINS EXISTING ROOT MAT SYSTEMS. REDUCES WINDFALL AT NEW FOREST EDGE. REDUCES SHEET FLOW VELOCITIES. DISCOURAGES EQUIPMENT ENTRANCE.
3		INEXPENSIVE AND VERY EFFECTIVE. STABILIZES SOIL, THUS MINIMIZING EROSION. PERMITS RUNOFF TO INFILTRATE SOIL, REDUCING RUNOFF. VOLUME SHOULD INCLUDE PREPARED TOPSOIL BED. FERTILIZING, MULCHING AND WATERING REQUIRED.
4		MULCH BLANKETS PROVIDE AN IMMEDIATE AND EFFECTIVE COVER OVER RAW ERODIBLE SLOPES AFFORDING EXCELLENT PROTECTION AGAINST RAIN AND WIND EROSION. HIGH VELOCITY MULCH BLANKETS WORK WELL FOR STABILIZING THE BOTTOM OF DITCHES IN WATERWAYS.
5		EFFECTIVE ON LARGE AREAS. MULCH TACKING AGENT USED TO PROVIDE IMMEDIATE PROTECTION UNTIL GRASS IS ROOTED. SHOULD INCLUDE PREPARED TOPSOIL BED. FERTILIZING, MULCHING AND WATERING ARE REQUIRED.

ADJACENT PROPERTIES	STOCKPILE AREAS	LARGE FLAT SURFACE AREAS	ENCLOSED DRAINAGE (INLET & OUTFALL CONTROL)	SURFACE DRAINAGEWAYS	STREAMS AND WATERWAYS	SLOPES
G	F	E	D	C	B	A
	*	*				*
	*	*				*
	*	*		*	*	*
	*	*		*	*	*
	*	*				*

REV	DESCRIPTION	DATE
REVISIONS		

 <p>CITY OF DETROIT WATER AND SEWERAGE DEPARTMENT ENGINEERING DIVISION</p>		<p>SCALE NONE</p> <p>DATE 09/2018</p> <p>DWG. No.</p>
<p>SOIL EROSION AND SEDIMENTATION CONTROL MEASURES (FROM 6-10)</p>		<p>2 OF 7 SHEET</p> <p>015713-14</p>






KEY	DETAILS	CHARACTERISTICS
6		PROVIDES IMMEDIATE PROTECTION. CAN BE USED ON STEEP SLOPES WHERE SEED MAY BE DIFFICULT TO ESTABLISH. EASY TO PLACE. MAY BE REPAIRED IF DAMAGED. SHOULD INCLUDE PREPARED TOPSOIL BED.
7		SLOWS RUNOFF VELOCITY. FILTERS SEDIMENT FROM RUNOFF. REDUCES VOLUME OF RUNOFF ON SLOPES. ASSISTS IN ESTABLISHING PERMANENT VEGETATIVE COVER.
8		USED ALONE TO PROTECT EXPOSED AREAS FOR SHORT PERIODS. PROTECTS SOIL FROM IMPACT OF FALLING RAIN. PRESERVES SOIL MOISTURE AND PROTECTS GERMINATING SEED FROM TEMPERATURE EXTREMES. SHOULD BE INSPECTED AFTER EVERY RAINSTORM AND REPAIRED AS NECESSARY UNTIL VEGETATION IS WELL ESTABLISHED.
9		CAN BE ACCOMPLISHED BY HARROWING WITH A DISK, BACK BLADING, OR TRACKING WITH A DOZER PERPENDICULAR TO THE SLOPE. REDUCES VELOCITY AND INCREASES INFILTRATION RATES. COLLECTS SEDIMENT. HOLDS WATER, SEED, AND MULCH BETTER THAN SMOOTH SURFACES.
10		USED WHERE VEGETATION IS NOT EASILY ESTABLISHED. EFFECTIVE FOR HIGH VELOCITIES OR HIGH CONCENTRATIONS. PERMITS RUNOFF TO INFILTRATE SOIL. DISSIPATES ENERGY FLOW AT SYSTEM OUTLETS. SHOULD BE PLACED ON A GEOTEXTILE LINER.

ADJACENT PROPERTIES	STOCKPILE AREAS	LARGE FLAT SURFACE AREAS	ENCLOSED DRAINAGE (INLET & OUTFALL CONTROL)	SURFACE DRAINAGEWAYS	STREAMS AND WATERWAYS	SLOPES
G	F	E	D	C	B	A
	*	*				*
	*	*				*
	*	*		*	*	*
	*	*		*	*	*
	*	*				*

REVISIONS	NO. DATE BY

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REV	DESCRIPTION	DATE
REVISIONS		

<p>* INDICATES APPLICABILITY OF A SPECIFIC CONTROL MEASURE TO ONE OR MORE OF THE SEVEN PROBLEM AREAS.</p>	
KEY	CHARACTERISTICS
11	 <p>AGGREGATE COVER</p> <p>STABILIZES SOIL SURFACE, THUS MINIMIZING EROSION. PERMITS CONSTRUCTION TRAFFIC IN ADVERSE WEATHER. MAY BE USED AS PART OF PERMANENT BASE CONSTRUCTION OF PAVED AREAS. REDUCES POTENTIAL SOIL EROSION AND FLUGITIVE DUST BY STABILIZING RAW AREAS.</p>
12	 <p>BENCHES</p> <p>REDUCES RUNOFF VELOCITY BY REDUCING EFFECTIVE SLOPE LENGTH. COLLECTS SEDIMENT. PROVIDES ACCESS TO SLOPES FOR SEEDING, MULCHING AND MAINTENANCE.</p>
13	 <p>DIVERSION BERM</p> <p>DIVERTS WATER FROM VULNERABLE AREAS. COLLECTS AND DIRECTS WATER TO PREPARED DRAINAGEWAYS. MAY BE PLACED AS PART OF NORMAL CONSTRUCTION OPERATION.</p>
14	 <p>INTERCEPTING DITCH</p> <p>COLLECTS AND DIVERTS WATER TO A STABLE OUTLET OR SEDIMENT CONTROL DEVICE TO REDUCE EROSION. POTENTIALLY BE INCORPORATED IN PERMANENT PROJECT DRAINAGE SYSTEMS.</p>
15	 <p>DIVERSION BERM & INTERCEPTING DITCH</p> <p>DIVERTS WATER TO A PREPARED DRAINAGEWAY. MAY BE USED AT INTERVALS ACROSS SLOPE FACE TO REDUCE EFFECTIVE SLOPE LENGTH.</p>

SLOPES	A	B	C	D	E	F	G
STREAMS AND WATERWAYS							
SURFACE DRAINAGEWAYS							
ENCLOSED DRAINAGE (INLET & OUTFALL CONTROL)					*		
LARGE FLAT SURFACE AREAS							
BORROW AND STOCKPILE AREAS						*	
ADJACENT PROPERTIES							

<p>CITY OF DETROIT WATER AND SEWERAGE DEPARTMENT ENGINEERING DIVISION</p>	
SCALE NONE	SHEET 3 OF 7
DATE 09/2018	DWG. No. 015713-15

REV	DESCRIPTION	DATE
REVISIONS		

<p>* INDICATES APPLICABILITY OF A SPECIFIC CONTROL MEASURE TO ONE OR MORE OF THE SEVEN PROBLEM AREAS.</p>	
KEY	CHARACTERISTICS
16	 <p>DUST CONTROL</p> <p>DUST CONTROL CAN BE ACCOMPLISHED BY WATERING, AND/OR APPLYING CALCIUM CHLORIDE. THE DISTURBED AREAS SHOULD BE KEPT TO A MINIMUM. PERMANENT/TEMPORARY SEEDING SHOULD BE APPLIED AS SOON AS POSSIBLE.</p>
17	 <p>GRAVEL FILTER BERM</p> <p>FILTER FLOW PRIOR TO ENTRY INTO A LAKE, STREAM OR WETLAND. NOT TO BE USED AS A CHECK DAM.</p>
18	 <p>BRUSH FILTER</p> <p>USES SLASH AND LOGS FROM CLEARING OPERATIONS. CAN BE COVERED AND SEEDED RATHER THAN REMOVED. ELIMINATES NEED FOR BURNING OR REMOVAL OF MATERIAL FROM SITE.</p>
19	 <p>BARE CHANNEL</p> <p>LEAST EXPENSIVE FORM OF DRAINAGEWAY. MAY BE USED ONLY WHERE GRADIENT IS VERY LOW AND WITH SOILS OF MINIMUM EROSION POTENTIAL.</p>
20	 <p>GRASSED WATERWAY</p> <p>GRASS TENDS TO SLOW RUNOFF AND FILTER OUT SEDIMENT. USED WHERE BARE CHANNEL WOULD BE ERODED.</p>

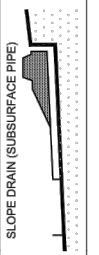
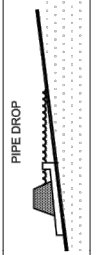
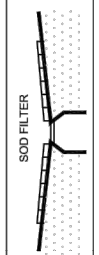
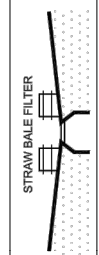
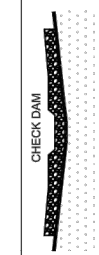
SLOPES	A	B	C	D	E	F	G
STREAMS AND WATERWAYS							
SURFACE DRAINAGEWAYS						*	*
ENCLOSED DRAINAGE (INLET & OUTFALL CONTROL)					*	*	
LARGE FLAT SURFACE AREAS							
BORROW AND STOCKPILE AREAS						*	
ADJACENT PROPERTIES							

<p>CITY OF DETROIT WATER AND SEWERAGE DEPARTMENT ENGINEERING DIVISION</p>	
SCALE NONE	SHEET 4 OF 7
DATE 09/2018	DWG. No. 015713-16


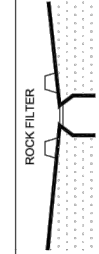
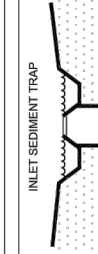
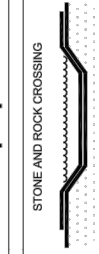
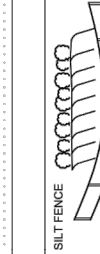
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REV	DESCRIPTION	DATE
REVISIONS		

<p>* INDICATES APPLICABILITY OF A SPECIFIC CONTROL MEASURE TO ONE OR MORE OF THE SEVEN PROBLEM AREAS.</p>	
KEY	CHARACTERISTICS
21	 <p>PREVENTS EROSION ON SLOPES WHEN RUNOFF CANNOT BE DIVERTED TO EDGE OF SLOPE AREA. USUALLY PERMANENT. CAN BE CONSTRUCTED OR EXTENDED AS GRADING PROGRESSES.</p>
22	 <p>REDUCES RUNOFF VELOCITY. REMOVES SEDIMENT AND TURBIDITY. CAN BE DESIGNED TO HANDLE LARGE VOLUMES OF FLOW. ALLOWS WATER TO DROP RAPIDLY IN ELEVATION WITHOUT CAUSING EXCESSIVE EROSION.</p>
23	 <p>INEXPENSIVE TO CONSTRUCT. PROVIDES IMMEDIATE PROTECTION. PROTECTS AREAS AROUND INLETS FROM EROSION.</p>
24	 <p>INEXPENSIVE AND EASY TO CONSTRUCT. CAN BE LOCATED AS NECESSARY TO COLLECT SEDIMENT. MAY BE USED IN CONJUNCTION WITH SNOW FENCE FOR ADDED STABILITY.</p>
25	 <p>CAN BE CONSTRUCTED ACROSS DITCHED OR ANY AREA OF CONCENTRATED FLOW. PROTECTS VEGETATION IN EARLY STAGES OF GROWTH. A CHECK DAM IS INTENDED TO REDUCE WATER VELOCITIES AND CAPTURE SEDIMENT. A CHECK DAM IS NOT A FILTERING DEVICE.</p>

ADJACENT PROPERTIES	G
BORROW AND STOCKPILE AREAS	F
LARGE FLAT SURFACE AREAS	E
ENCLOSED DRAINAGE (INLET & OUTFALL CONTROL)	D
SURFACE DRAINAGEWAYS	C
STREAMS AND WATERWAYS	B
SLOPES	A

<p>* INDICATES APPLICABILITY OF A SPECIFIC CONTROL MEASURE TO ONE OR MORE OF THE SEVEN PROBLEM AREAS.</p>	
KEY	CHARACTERISTICS
26	 <p>PROVIDES SETTLING AND FILTERING OF SILT LADEN WATER PRIOR TO ITS ENTRY INTO THE DRAINAGE SYSTEM. CAN BE USED IN MEDIAN AND SIDE DITCHES WHERE VEGETATION WILL BE DISTURBED. ALLOWS FOR EARLY USE OF DRAINAGE SYSTEMS PRIOR TO PROJECT COMPLETION.</p>
27	 <p>CAN UTILIZE MATERIAL FOUND ON SITE. EASY TO CONSTRUCT. FILTERS SEDIMENT FROM RUNOFF.</p>
28	 <p>EASY TO SHAPE COLLECTS SEDIMENT. MAY BE CLEANED AND EXPANDED AS NEEDED. CAN BE USED WHERE MEDIUM FLOWS ARE ANTICIPATED.</p>
29	 <p>MAY BE ROCK OR CLEAN RUBBLE MINIMIZES STREAM TURBIDITY. INEXPENSIVE. MAY ALSO SERVE AS DITCH CHECK OR SEDIMENT TRAP.</p>
30	 <p>A PERMEABLE BARRIER ERRECTED BELOW DISTURBED AREAS TO CAPTURE SEDIMENTS FROM SHEET FLOW. CAN BE USED TO DIVERT SMALL VOLUMES OF WATER TO STABLE OUTLETS. INEFFECTIVE AS A FILTER AND SHOULD NEVER BE PLACED ACROSS STREAMS OR DITCHES WHERE FLOW IS CONCENTRATED.</p>

ADJACENT PROPERTIES	G
BORROW AND STOCKPILE AREAS	F
LARGE FLAT SURFACE AREAS	E
ENCLOSED DRAINAGE (INLET & OUTFALL CONTROL)	D
SURFACE DRAINAGEWAYS	C
STREAMS AND WATERWAYS	B
SLOPES	A

SOIL EROSION AND SEDIMENTATION CONTROL MEASURES (FROM 21-25)


CITY OF DETROIT
WATER AND SEWERAGE DEPARTMENT
ENGINEERING DIVISION

SCALE NONE SHEET 5 OF 7
 DATE 09/2018 SHEET 015713-17
 DWG. No.

SOIL EROSION AND SEDIMENTATION CONTROL MEASURES (FROM 26-30)


CITY OF DETROIT
WATER AND SEWERAGE DEPARTMENT
ENGINEERING DIVISION

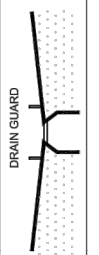
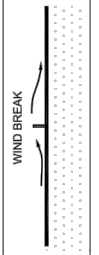

SCALE NONE SHEET 6 OF 7
 DATE 09/2018 SHEET 015713-18
 DWG. No.

REVISIONS	NO. DATE BY
1
2
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4
5


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	REVISIONS	

*	INDICATES APPLICABILITY OF A SPECIFIC CONTROL MEASURE TO ONE OR MORE OF THE SEVEN PROBLEM AREAS.	
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KEY	DETAILS	CHARACTERISTICS
31		PERMEABLE BARRIER ERECTED AROUND AN INLET TO CAPTURE SEDIMENTS.
32		MINIMIZES WIND EROSION. MAY BE SNOW FENCE.
33		PROVIDES A STABLE ACCESS TO ROADWAYS MINIMIZING FUGITIVE DUST AND TRACKING OF MATERIALS ONTO PUBLIC STREETS AND HIGHWAYS.

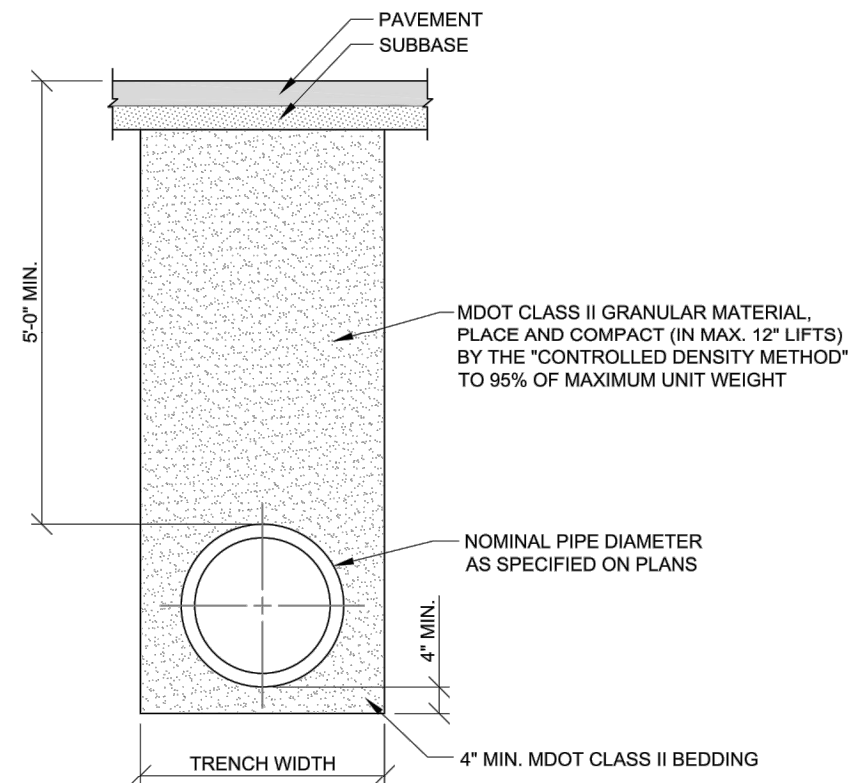
SLOPES	A	B	C	D	E	F	G
STREAMS AND WATERWAYS							
SURFACE DRAINAGEWAYS							
ENCLOSED DRAINAGE (INLET & OUTFALL CONTROL)				*			
LARGE FLAT SURFACE AREAS					*		
BORROW AND STOCKPILE AREAS						*	
ADJACENT PROPERTIES							

SOIL EROSION AND SEDIMENTATION CONTROL MEASURES (FROM 31-33)	
 CITY OF DETROIT WATER AND SEWERAGE DEPARTMENT ENGINEERING DIVISION	
SCALE	NONE
DATE	09/2018
SHEET	7 OF 7
DWG. No.	015713-19

REVISIONS	...
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DATE	PROJ NUMBER	ENG	CAD	COUNTY	CITY/VILLAGE/TOWNSHIP	SCALE	VERT DATUM
5/22/20	7528-19-00	AMB	SM	WAYNE	DETROIT	H 1"=10'	INDS
							DETROITICS

**DOWNTOWN DETROIT PARTNERSHIP IN COOPERATION WITH THE CITY OF DETROIT
FORT STREET AT CAMPUS MARTIUS
CITY OF DETROIT DWSD DETAILS**



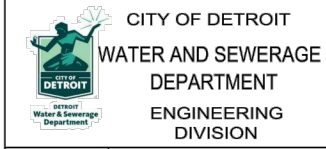
NOTE:
REFER TO RESTORATION
DETAILS FOR PAVEMENT
WIDTH.

NOMINAL PIPE DIAMETER	MAXIMUM TRENCH WIDTH UP TO 12" ABOVE CROWN OF PIPE
LESS THAN 18"	30"
18" TO 24"	PIPE DIAMETER PLUS 18"
GREATER THAN 24"	PIPE DIAMETER PLUS 24"

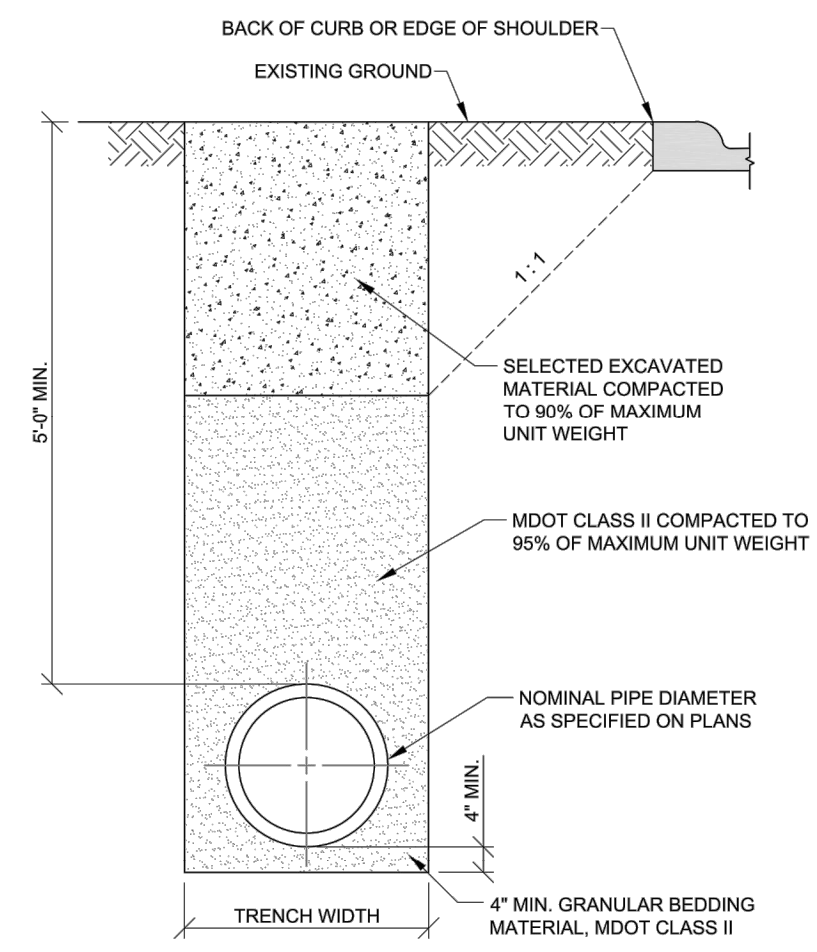
STANDARD TRENCH DETAIL FOR WATERMAIN UNDER ROAD BED, PARKING LOTS, SIDEWALKS, DRIVEWAYS, CURBS, GRAVEL ROADS AND ALLEYS

REV	DESCRIPTION	DATE
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-	-	-
-	-	-
-	-	-
-	-	-
-	-	-
REVISIONS		

UTILITY TRENCH, WATERMAIN



CITY OF DETROIT
WATER AND SEWERAGE
DEPARTMENT
ENGINEERING
DIVISION
SCALE NONE SHEET 1 OF 3
DATE 9/2018 SHEET 312333-04
DWG. No.

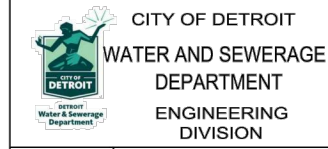


NOMINAL PIPE DIAMETER	MAXIMUM TRENCH WIDTH UP TO 12" ABOVE CROWN OF PIPE
LESS THAN 18"	30"
18" TO 24"	PIPE DIAMETER PLUS 18"
GREATER THAN 24"	PIPE DIAMETER PLUS 24"

STANDARD TRENCH DETAIL FOR WATERMAIN WITHIN INFLUENCE OF ROAD BED

REV	DESCRIPTION	DATE
-	-	-
-	-	-
-	-	-
-	-	-
-	-	-
-	-	-
REVISIONS		

UTILITY TRENCH, WATERMAIN

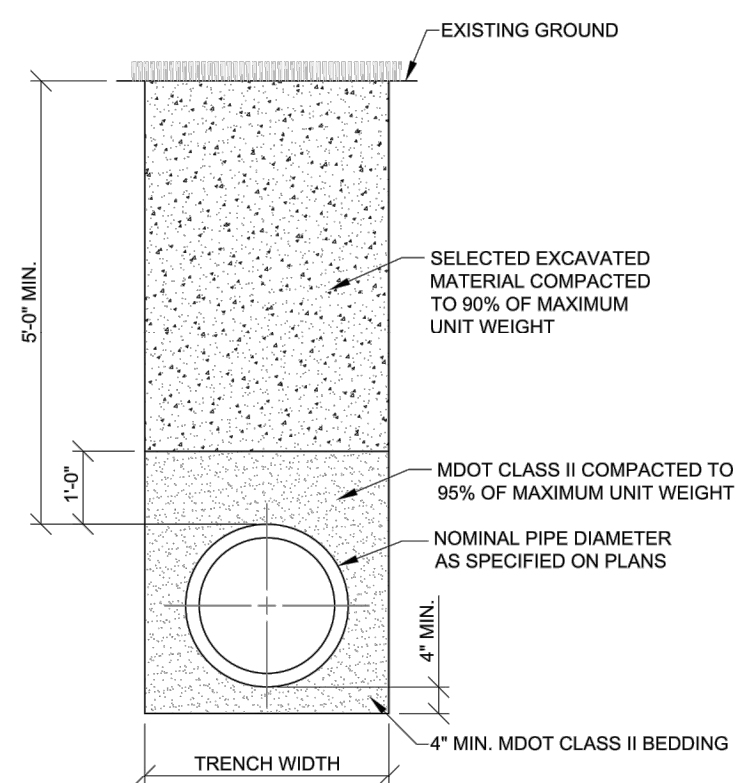


CITY OF DETROIT
WATER AND SEWERAGE
DEPARTMENT
ENGINEERING
DIVISION
SCALE NONE SHEET 2 OF 3
DATE 9/2018 SHEET 312333-05
DWG. No.

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NO.	DATE	DESCRIPTION

DOWNTOWN DETROIT PARTNERSHIP IN COOPERATION WITH THE CITY OF DETROIT
FORT STREET AT CAMPUS MARTIUS
CITY OF DETROIT DWSD DETAILS



NOMINAL PIPE DIAMETER	MAXIMUM TRENCH WIDTH UP TO 12\"/>
LESS THAN 18"	30"
18" TO 24"	PIPE DIAMETER PLUS 18"
GREATER THAN 24"	PIPE DIAMETER PLUS 24"

STANDARD TRENCH DETAIL FOR WATERMAIN UNDER BERMS, LAWNS, GRASSY AREAS, (OUTSIDE PAVEMENT INFLUENCE)

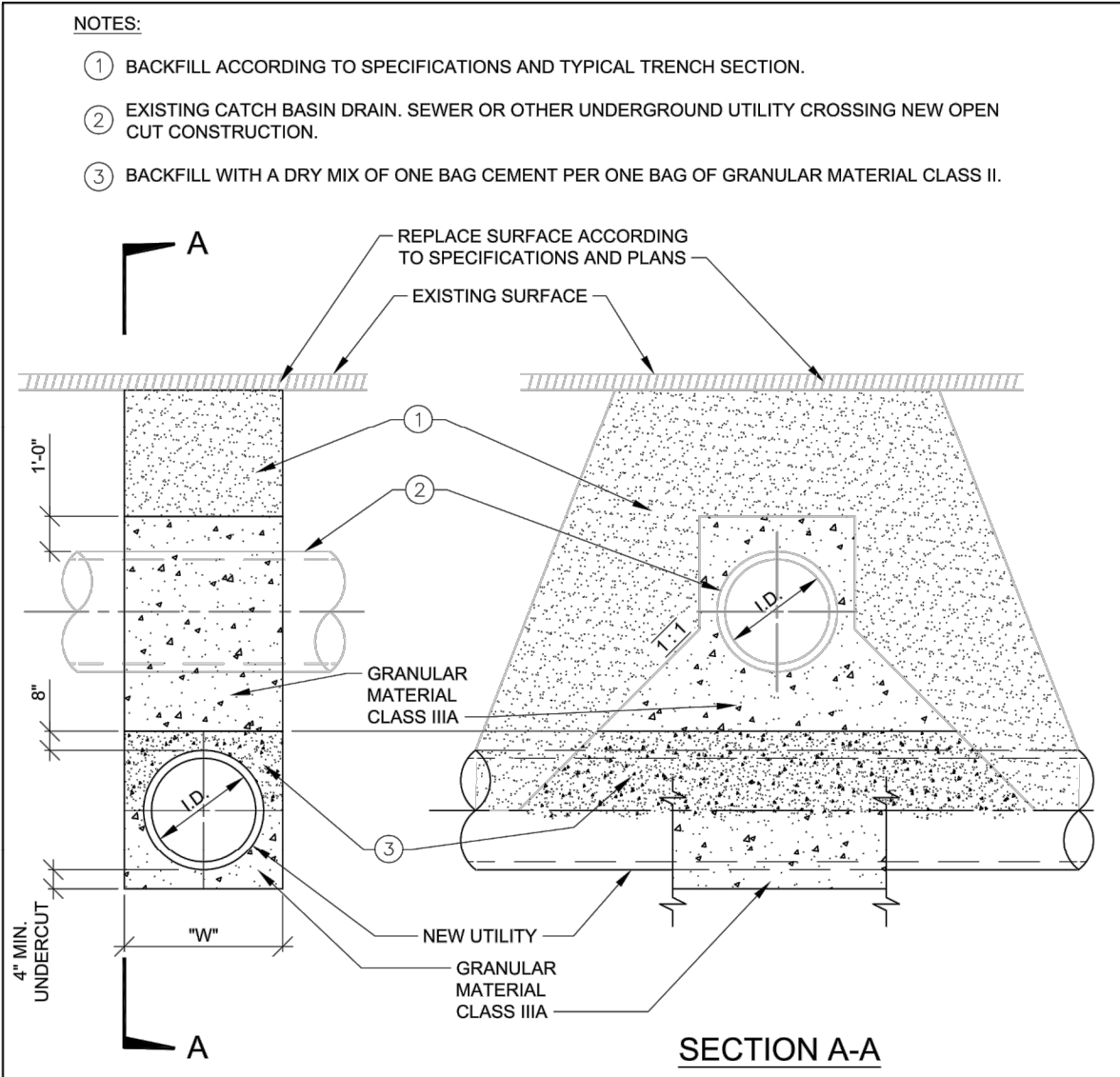
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REVISIONS		

UTILITY TRENCH, WATERMAIN



CITY OF DETROIT
WATER AND SEWERAGE DEPARTMENT
ENGINEERING DIVISION

SCALE	NONE	SHEET	3 OF 3
DATE	9/2018	DWG. No.	312333-06



- NOTES:**
- BACKFILL ACCORDING TO SPECIFICATIONS AND TYPICAL TRENCH SECTION.
 - EXISTING CATCH BASIN DRAIN, SEWER OR OTHER UNDERGROUND UTILITY CROSSING NEW OPEN CUT CONSTRUCTION.
 - BACKFILL WITH A DRY MIX OF ONE BAG CEMENT PER ONE BAG OF GRANULAR MATERIAL CLASS II.

- NOTES:**
- ALL GRANULAR BACKFILL MATERIAL SHALL BE COMPACTED TO 95% OF MAXIMUM UNIT WEIGHT.
 - WATERMANS CROSSING UNDER SEWERS - WHEN IT IS IMPOSSIBLE TO OBTAIN THE MINIMUM 18-INCH CLEARANCE. REPLACE THE SEWER PIPE (MINIMUM OF 10 FT. ON BOTH SIDES OF WATERMAIN) WITH WATER WORKS GRADE 150PSI PRESSURE TESTED TO ENSURE WATER TIGHTNESS.
 - "W" - SEE TRENCH DETAILS FOR TRENCH WIDTH.

TYPICAL DETAIL AT CROSSING UNDER EXISTING UTILITIES

REV	DESCRIPTION	DATE
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REVISIONS		

UTILITY CROSSING



CITY OF DETROIT
WATER AND SEWERAGE DEPARTMENT
ENGINEERING DIVISION

SCALE	NONE	SHEET	1 OF 1
DATE	09/2018	DWG. No.	312333-07

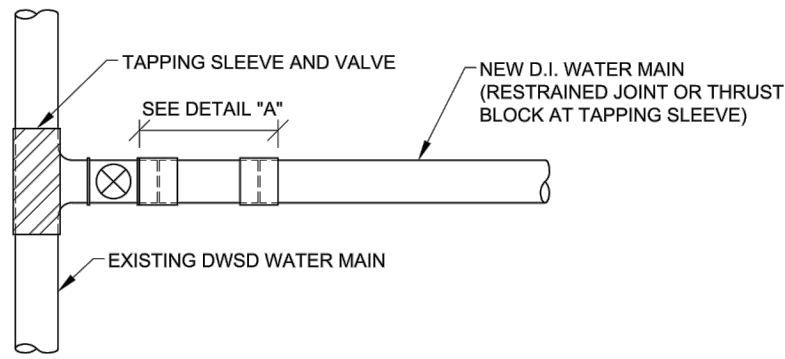
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NO.	DATE	DESCRIPTION

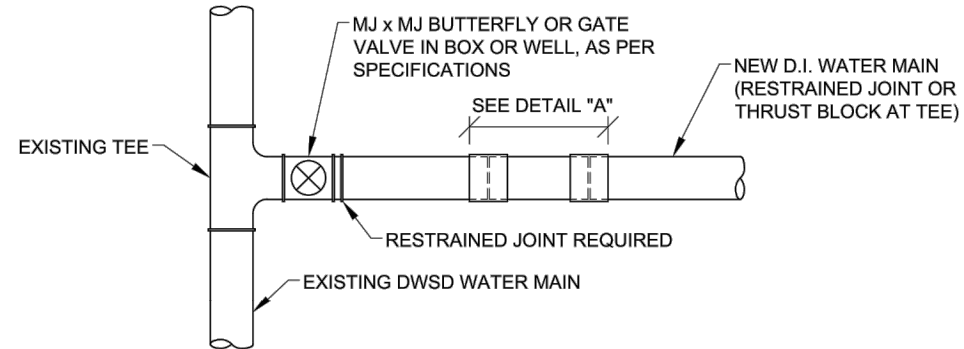
REVISIONS

CITY OF DETROIT
WATER AND SEWERAGE DEPARTMENT
ENGINEERING DIVISION

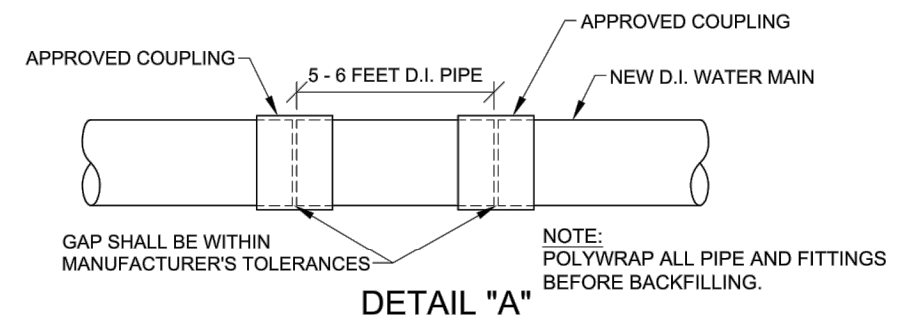
DOWNTOWN DETROIT PARTNERSHIP IN COOPERATION WITH THE CITY OF DETROIT
FORT STREET AT CAMPUS MARTIUS
CITY OF DETROIT DWSD DETAILS



CONNECTION WITH EXISTING DWSD MAIN WITH TAPPING SLEEVE AND VALVE



CONNECTION AT EXISTING DWSD MAIN WITH TEE / VALVE



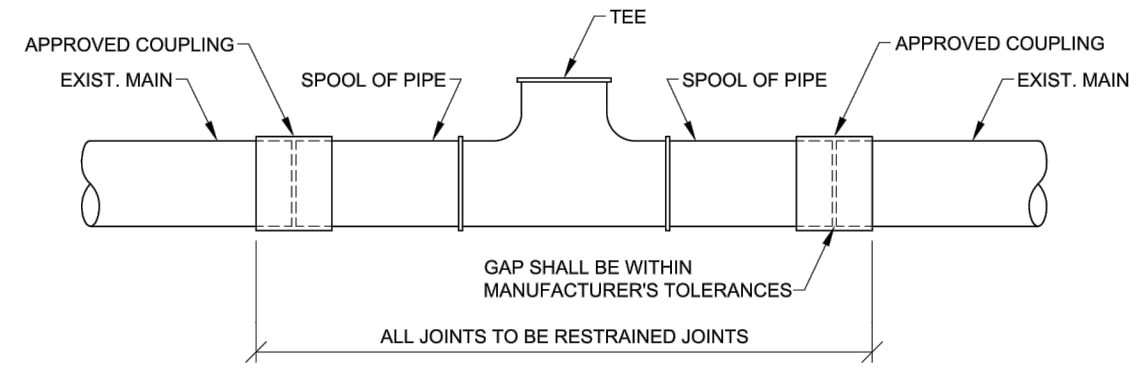
DETAIL "A"

REV	DESCRIPTION	DATE
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REVISIONS		

CONNECTION WITH EXISTING WATERMAIN



CITY OF DETROIT
WATER AND SEWERAGE DEPARTMENT
ENGINEERING DIVISION
SCALE NONE SHEET 1 OF 2
DATE 10/2018 SHEET 331413-08
DWG. No.



NOTE: POLYWRAP ALL PIPE AND FITTINGS BEFORE BACKFILLING.

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REVISIONS		

CONNECTION WITH EXISTING WATERMAIN



CITY OF DETROIT
WATER AND SEWERAGE DEPARTMENT
ENGINEERING DIVISION
SCALE NONE SHEET 2 OF 2
DATE 10/2018 SHEET 331413-09
DWG. No.

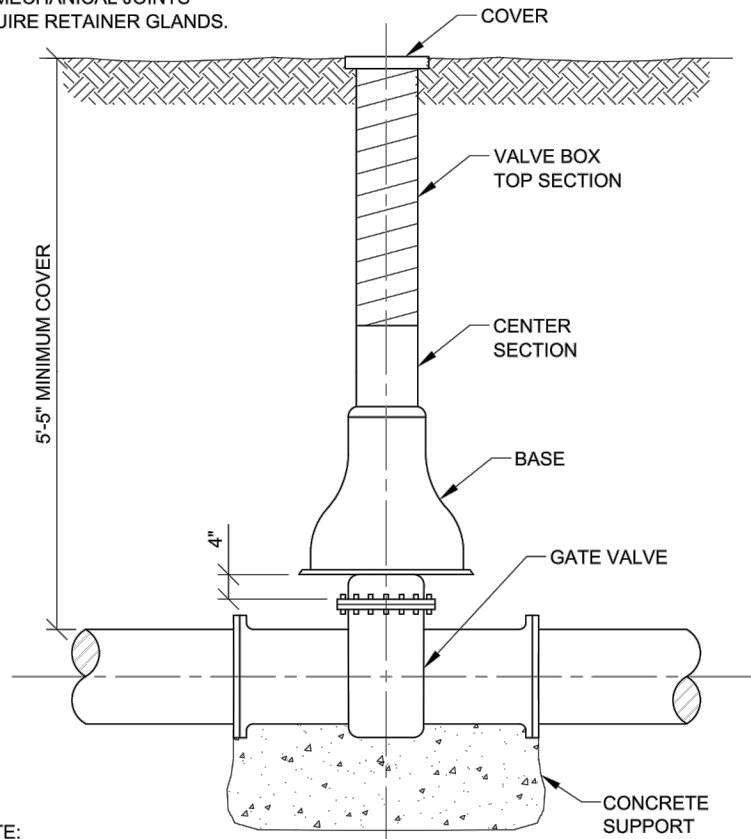
DATE	PROJ NUMBER	ENG	AMB	PROJ LEADER	CAD	COUNTY	CITY/TOWNSHIP	SCALE	H	V	W	VERT DATUM	VERT DATUM	INDS	DEPT
5/22/20	7526-19-00					WAYNE	DETROIT	1"=10'							DEPT CIVIL

REVISIONS
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DOWNTOWN DETROIT PARTNERSHIP IN COOPERATION WITH THE CITY OF DETROIT
FORT STREET AT CAMPUS MARTIUS
CITY OF DETROIT DWSD DETAILS

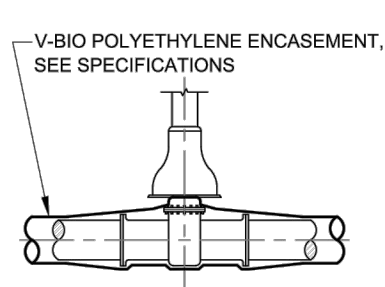
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NOTE:
 ALL MECHANICAL JOINTS
 REQUIRE RETAINER GLANDS.

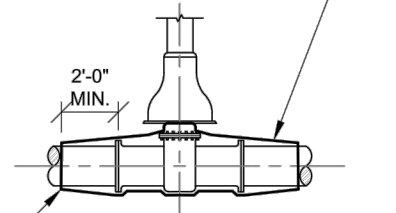


NOTE:
 POLYWRAP VALVE PER DETAILS BELOW.



GATE VALVE ON D.I. PIPE

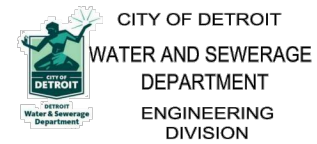
OVERLAP V-BIO ONTO PE PIPE MIN. 2'-0".
 SEAL END OF V-BIO WITH ADHESIVE TAPE
 IN ACCORDANCE WITH AWWA C105



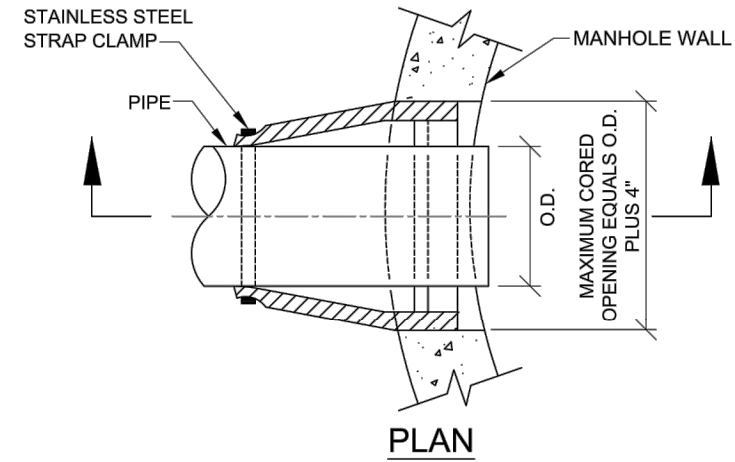
GATE VALVE ON PE PIPE

REV	DESCRIPTION	DATE
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REVISIONS		

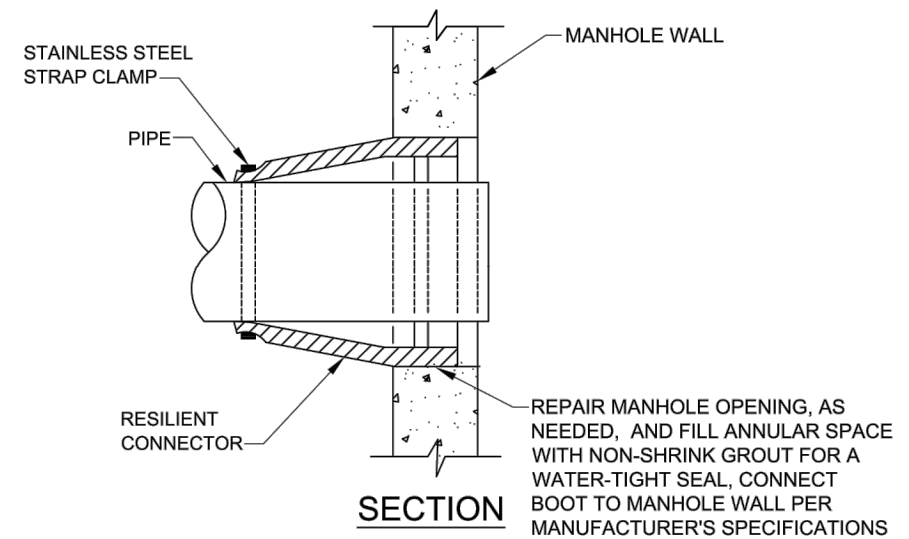
**VALVE BOX
 INSTALLATION**



SCALE	NONE	SHEET	1 OF 1
DATE	9/2018	DWG. No.	331419-04



PLAN

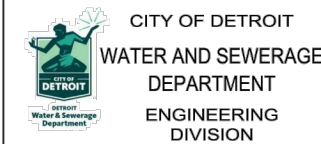


SECTION

**WATERTIGHT RESILIENT CONNECTOR
 FOR CONNECTING PROPOSED PIPES TO EXISTING MANHOLES
 AND EXISTING PIPES TO PROPOSED MANHOLES**

REV	DESCRIPTION	DATE
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REVISIONS		

**SEWER PIPE
 CONNECTION WITH
 MANHOLE**



SCALE	NONE	SHEET	1 OF 1
DATE	9/2018	DWG. No.	333111-07

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DATE	PROJ NUMBER	ENG	PROJ LEAD	CAD	COUNTY	CITY/VILLAGE/TOWNSHIP	SCALE	H	V	W	REV	DATE	REV	DATE
5/22/20	7528-19-00	AMB	BOG	SM	WAYNE	DETROIT	1"=10'							

DOWNTOWN DETROIT PARTNERSHIP IN COOPERATION WITH THE CITY OF DETROIT
 FORT STREET AT CAMPUS MARTIUS
 CITY OF DETROIT DWSD DETAILS