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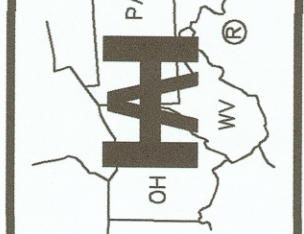
DATA USED
CONTOURS: GIS 2018
BOUNDARY SURVEY BY H&A DATED 2006

SCALE: 1" = 20'
0 10' 20' 40'

GIS SITE PLAN
NEW WAREHOUSE BUILDING
FOR: CHARLES & RITA STEINMETZ
LOCATED ON OUT LOT #979, THE CITY OF MASSILLON
STARK COUNTY, OH

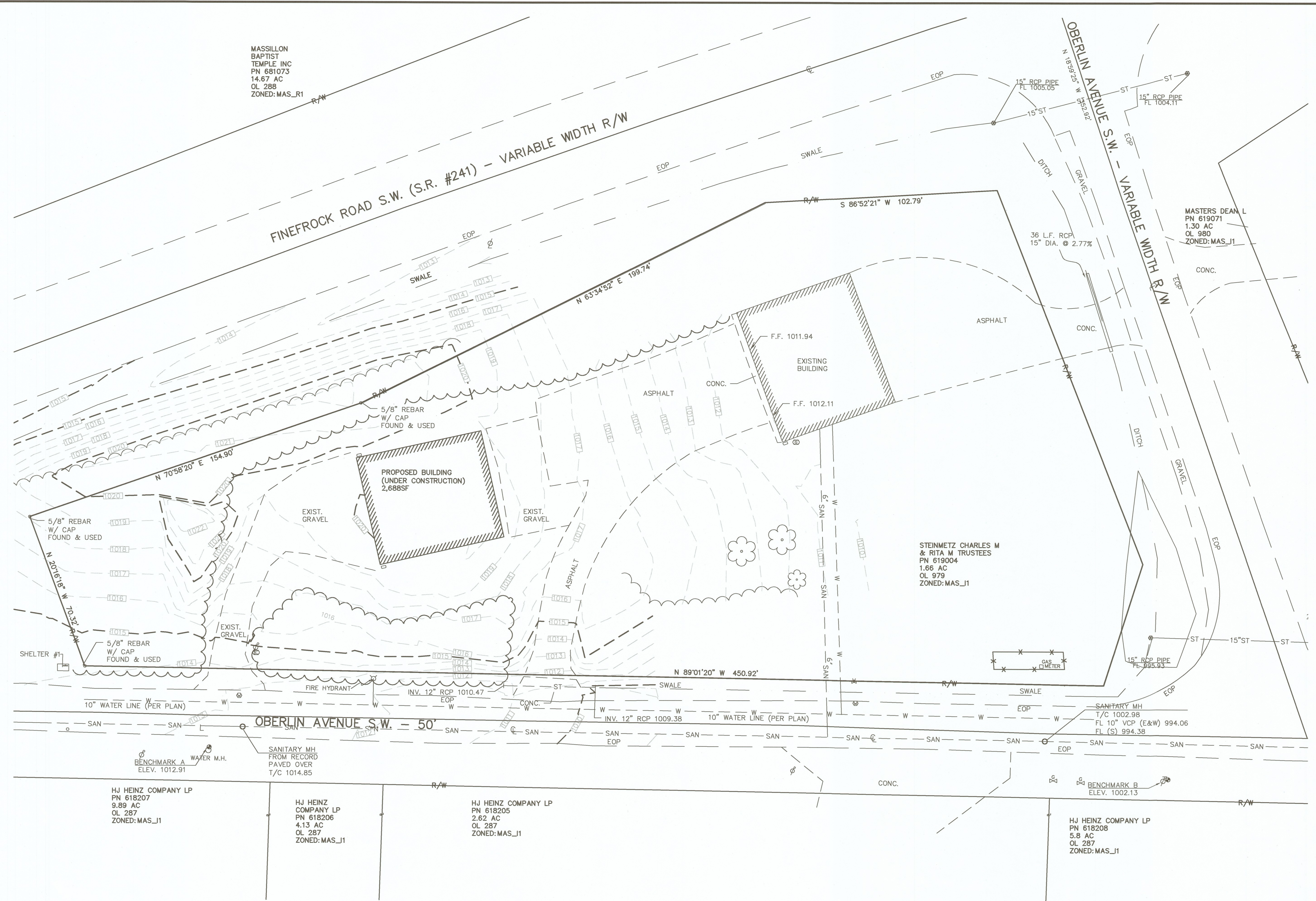
C2.1

HAMMONTREE & ASSOCIATES, LIMITED
ENGINEERS, PLANNERS, SURVEYORS
PA
5233 STONEHAM RD. NORTH CANTON, OH 44720
PHN: (330) 499-8817 FAX: (330) 499-0149
TOLL FREE: 1-800-394-8817
www.hammontree-engineers.com



DESIGN BY: XXX	REV. BY: _____	DESC.: _____
DRWN BY: HLC	REV. BY: _____	DESC.: _____
RVMD BY: JDS	REV. BY: _____	DESC.: _____
FLD BK: 100	REV. BY: _____	DESC.: _____
BK PG: XXX	REV. BY: _____	DESC.: _____
DATE: 10/18/21	REV. BY: JDS	DATE: 11/05/21
REVISED PER CITY COMMENTS		

SCALES
HORIZ: X
VERT: X
CONTOUR INT: X



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EXISTING SURVEY PLAN
NEW WAREHOUSE BUILDING
FOR: CHARLES & RITA STEINMETZ
LOCATED ON OUT LOT #979, THE CITY OF MASSILLON
STARK COUNTY, OH

DESIGN BY:	XXX	DATE:	DESC.:
DRWN BY: <td>HLC<td>DATE:<td>DESC.:</td></td></td>	HLC <td>DATE:<td>DESC.:</td></td>	DATE: <td>DESC.:</td>	DESC.:
RWD BY: <td>JDS<td>DATE:<td>DESC.:</td></td></td>	JDS <td>DATE:<td>DESC.:</td></td>	DATE: <td>DESC.:</td>	DESC.:
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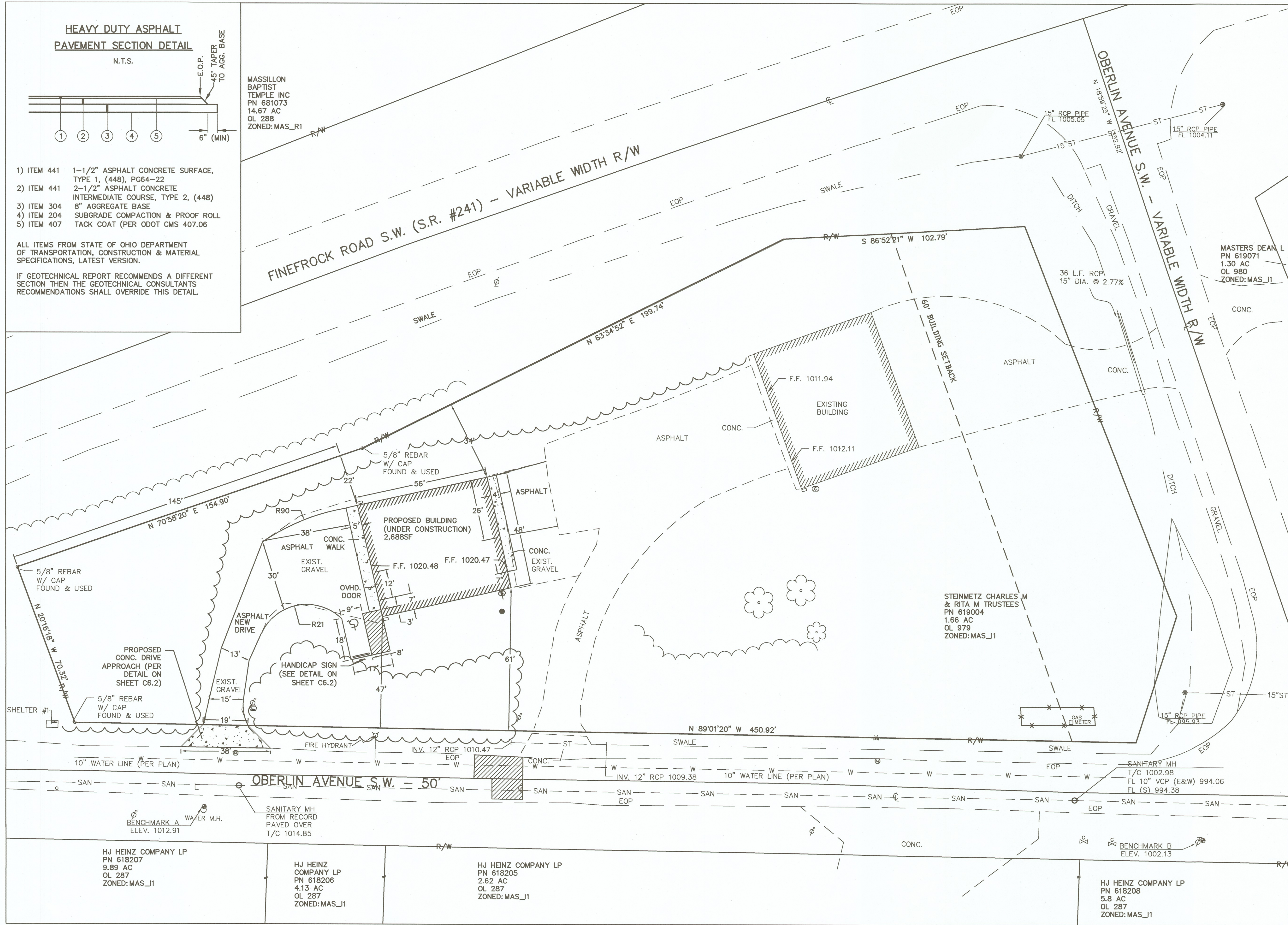
REVISIONS

REV.	BY:	DATE:	DESC.:
1	JDS	11/05/21	REVISED PER CITY COMMENTS

SCALE: 1 INCH = 20'

0 10' 20' 40'

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SITE DATA

ADDRESS: 1350 OBERLIN AVE SW
MASSILLON OH 44647

TOTAL SITEAREA:
1.66 AC.

AREA OF SITE
TO UNDERGO
EXCAVATION: 0.44 AC.

PROPOSED USE:
NEW WAREHOUSE
BUILDING WILL
BE USED FOR
STORAGE OF
FURNITURE AND
HOUSEHOLD
ITEMS.

ZONING

ZONED: MASS-J1
LIGHT
INDUSTRIAL

MINIMUM BUILDING
SETBACKS
FRONT: 60'
SIDE: NA
REAR: NA

NOTES

1. TOPO SURVEY
OBTAINED SHOWS
PROPOSED BUILDING
UNDER CONSTRUCTION
AND GRAVEL AREAS
FROM NEW DRIVES.

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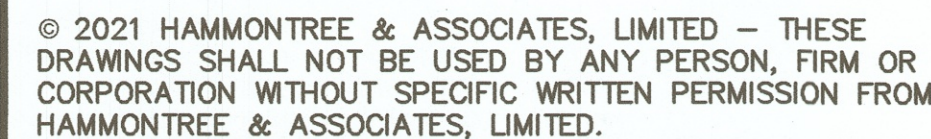
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NEW WAREHOUSE BUILDING
FOR: CHARLES & RITA STEINMETZ
LOCATED ON OUT LOT #979, THE CITY OF MASSILLON
STARK COUNTY, OH

SCALE: 1 INCH = 20'

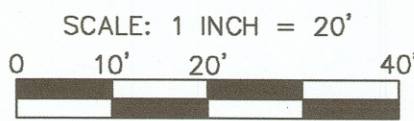
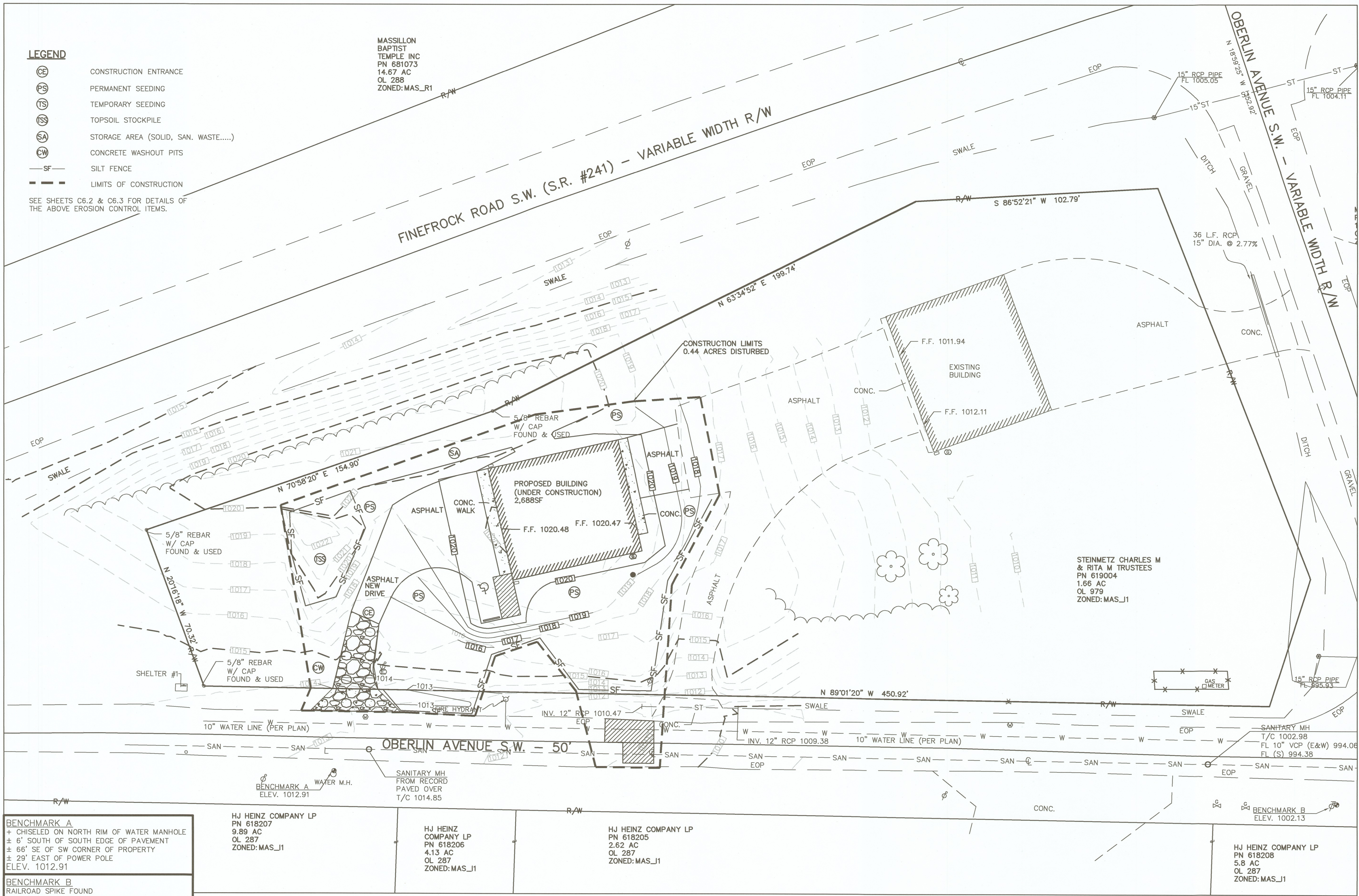
0 10' 20' 40'

C3.1



SERVICE SADDLES:
STAINLESS STEEL,
DOUBLE STUD, CC
OUTLET, SMITH-BLAIR
MODEL 372 OR EQUAL
PROVIDED BY AQUA
OHIO, INC.

C4.1



FLOODPLAIN

SUBJECT PROPERTY IS IN ZONE 'X'
AREA OF MINIMAL FLOODING PER
FEMA MAP 39151C0193E. DATED
9/29/2011.

BENCHMARK A
+ CHISELED ON NORTH RIM OF WATER MANHOLE
± 6' SOUTH OF SOUTH EDGE OF PAVEMENT
± 66' SE OF SW CORNER OF PROPERTY
± 29' EAST OF POWER POLE
ELEV. 1012.91

BENCHMARK B
RAILROAD SPIKE FOUND
± 1' UP ON NE SIDE OF POWER POLE #2420-03
ON THE SOUTH SIDE OF OBERLIN RD.
± 50' SE OF SE CORNER OF PROPERTY
ELEV. 1002.13

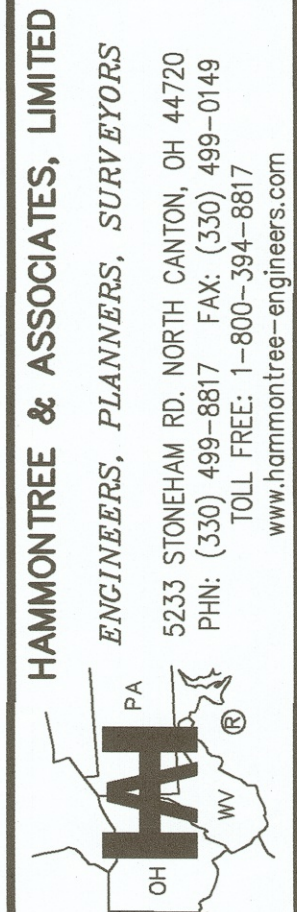
HJ HEINZ COMPANY LP
PN 618207
9.89 AC
OL 287
ZONED: MAS_I1

HJ HEINZ COMPANY LP
PN 618206
4.13 AC
OL 287
ZONED: MAS_I1

HJ HEINZ COMPANY LP
PN 618205
2.62 AC
OL 287
ZONED: MAS_I1

HJ HEINZ COMPANY LP
PN 618208
5.8 AC
OL 287
ZONED: MAS_I1

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SCALE:
HORIZ: X
VERT: X
CONTOUR INT: X

SITE GRADING & SWPPP PLAN
NEW WAREHOUSE BUILDING
FOR: CHARLES & RITA STEINMETZ
LOCATED ON OUT LOT #979, THE CITY OF MASSILLON
STARK COUNTY, OH

8. THE CONTRACTOR SHALL VERIFY THE SIZE, LOCATION, INVERT ELEVATION, AND CONDITION OF ALL EXISTING UTILITIES AT THE POINT OF CONNECTIONS PRIOR TO ANY INSTALLATION. THE CONTRACTOR IS TO ENSURE EXISTING UTILITIES ARE IN GOOD WORKING ORDER. IF ELEVATIONS DIFFER FROM WHAT IS SHOWN ON THIS DRAWING, THE CONTRACTOR SHALL NOTIFY ENGINEER IMMEDIATELY PRIOR TO ANY CONSTRUCTION.
9. 10 FT-HORIZONTAL AND 1.5 FT-VERTICAL (MINIMUM) CLEARANCE IS REQUIRED BETWEEN SANITARY & WATER LINES. ALL OTHER UTILITIES SHALL HAVE 5 FT-HORIZONTAL AND 1.0 FT-VERTICAL (MINIMUM) CLEARANCE BETWEEN LINES.
10. GAS, ELECTRIC, TELEPHONE & CABLE LINES SHOWN FOR REFERENCE ONLY AND ARE DESIGNED BY OTHERS. CONTRACTOR TO INSTALL PER RESPECTIVE UTILITY APPROVED SET OF PLANS.
11. COORDINATE UTILITY CONNECTIONS AT THE BUILDING WITH THE MECHANICAL DRAWINGS.

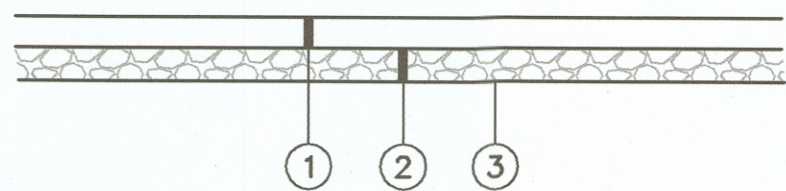
SANITARY SEWER CONSTRUCTION PROPOSED FOR THIS PROJECT SHALL CONFORM TO THE LATEST CITY OF MASSILLON STANDARDS AND CONSTRUCTION AND MATERIALS SPECIFICATIONS, TEN STATE STANDARDS, AND THE LATEST EDITION OF THE ODOT CMS, OR MODIFIED BY THE CONTRACT DRAWINGS. IF A CONFLICT ARISES BETWEEN SAID STANDARDS IT SHALL BE AT THE DISCRETION OF THE CITY OF MASSILLON ENGINEER AS TO WHICH STANDARD SHALL GOVERN. THE PROJECT CONTRACT DRAWINGS SHALL GOVERN UNLESS NOTED OTHERWISE.

SANITARY GRAVITY SEWER PIPE AND FITTINGS SHALL BE PVC SDR 35 CONFORMING TO ASTM D-3034 UNLESS OTHERWISE NOTED. PVC COMPOUNDS SHALL CONFORM TO ASTM D-1784 PVC PIPE AND FITTINGS SHALL HAVE BELL AND SPIGOT TYPE JOINTS CONFORMING TO ASTM-3212 AND GASKETS CONFORMING TO ASTM F-477.

BACKFILL IN SEWER TRENCHES SHALL CONFORM TO ODOT ITEM 603.10 AND BE PLACED IN LAYERS SUFFICIENT TO MEET THE COMPACTION REQUIREMENT OF 100% OF MAXIMUM LABORATORY DRY DENSITY PER ASTM D-698 AND THOROUGHLY COMPACTED WITH MACHINE MOUNDED COMPACTION EQUIPMENT. THE PLACING OF BACKFILL MATERIAL SHALL BE CONTINUED UNTIL THE TRENCH IS ENTIRELY FILLED AND COMPACTED WITH THE APPROVED GRANULAR MATERIAL TO THE GRADE CALLED FOR ON THE CONTRACT DRAWINGS. EXCAVATED MATERIAL CONFORMING TO ODOT 203 SHALL BE USED FOR BACKFILLING EXISTING STRUCTURES (AFTER REMOVAL) ONLY. CRUSHED GRAVEL CONFORMING TO GRADATION REQUIREMENTS OF ODOT ITEM 304 OR APPROVED EQUAL AS SHOWN ON ODOT TABLE 703-1 SHALL BE USED FOR BACKFILLING ALL SEWER TRENCH AREAS SHOWN ON THE PLANS AND AS DIRECTED BY THE CITY OF MASSILLON ENGINEER. FLOODING, JETTING, OR PUDDLING OF BACKFILL MATERIAL WILL NOT BE PERMITTED UNLESS APPROVED BY THE CITY OF MASSILLON ENGINEER.

3. WATERLINES AND APPURTENANCES SHALL BE CONSTRUCTED ACCORDING TO AQUA OHIO SPECIFICATIONS AND DETAILS IN EFFECT AT TIME OF CONSTRUCTION. ANY SITUATION REQUIRING A MODIFICATION TO SAID STANDARDS & SPECIFICATIONS MUST FIRST BE APPROVED BY AQUA OHIO.
2. PRIOR TO START OF CONSTRUCTION, THE CONTRACTOR SHALL SCHEDULE A PRE-CONSTRUCTION MEETING WITH AQUA OHIO.
3. THE CONTRACTOR SHALL ALERT THE UTILITIES PROTECTION SERVICE AT LEAST 48 HOURS PRIOR TO START OF CONSTRUCTION.
4. APPROVAL BY AQUA OHIO CONSTITUTES NEITHER EXPRESSED NOR IMPLIED WARRANTIES AS TO FITNESS, ACCURACY, OR SUFFICIENCY OF PLANS, DESIGNS OR SPECIFICATIONS.
5. ALL ROUGH GRADING TO WITHIN SIX (6) INCHES OF FINISHED GRADE SHALL BE COMPLETED WITHIN EASEMENTS AND RIGHTS-OF-WAY PRIOR TO WATERLINE CONSTRUCTION.
6. MINIMUM VERT. CLEARANCE BETWEEN WATERLINE AND SANITARY SEWER SHALL BE 18 INCHES. MINIMUM HORIZ. SEPARATION SHALL BE 10 FT. MINIMUM VERT. CLEARANCE BETWEEN WATERLINE AND STORM SEWER SHALL BE 12 INCHES. MINIMUM HORIZ. SEPARATION SHALL BE 4 FT.
7. WATER SERVICE LINES SHALL TERMINATE 5 FT. FROM THE BUILDING FOUNDATION.
8. DCIP WATER MAIN PIPE SHALL CONFORM TO AWWA C-151, AWWA C-111 FOR JOINTS.
9. WATER MAIN PRESSURE TESTING SHALL CONFORM TO AWWA C-600.
10. WATER MAIN DISINFECTION SHALL CONFORM TO AWWA C-651.
11. MINIMUM COVER OVER WATERLINES SHALL BE FOUR (4) FT.
12. HYDRANTS SHALL BE MUELLER A-423 CENTURION OR APPROVED EQUAL 3-WAY, WITH 4 1/2" NOZZLE CONNECTION FOR FIRE HOSE.
13. TYPE "II" HYDRANT REFERS TO 90 DEGREE TEE ASSEMBLY OFF OF MAIN LINE, COMPLETE WITH ALL VALVES AND APPURTENANCES. THE CONTRACTOR SHALL REFER TO AQUA OHIO SPECIFICATIONS AND DETAILS.
14. FIRE HYDRANTS SHALL BE FIELD PAINTED RED & YELLOW (2 COATS).
15. HYDRANTS, HYDRANT VALVES, MAINLINE VALVE BOXES AND CURB BOXES SHALL NOT BE LOCATED WITHIN SIDEWALKS, DRIVEWAYS, OR APRONS.
16. BLOW-OFF HYDRANTS SHALL HAVE 2" INLET, 2" OUTLET AND RISER PIPE, AND SHALL BE ECLIPSE NO. TF500, OR APPROVED EQUAL.
17. BACKFILLING BELOW OR WITHIN 3 FT OF EXISTING OR PROPOSED ROADWAY, DRIVEWAY, SIDEWALK OR WALL SHALL BE TYPE 1 OR TYPE 2 STRUCTURAL BACKFILL IN ACCORDANCE WITH THE BACKFILL REQUIRED FOR STORM SEWER, ODOT ITEM 703.11.
18. ALL PIPE JOINTS WITHIN 40 LF OF ANY DEAD END SHALL BE RESTRAINED BY USING FIELD LOCK GASKETS, OR MEGA LUGS ON MECHANICAL JOINTS. ALL PIPE JOINTS WITHIN 40 LF OF ANY BEND, FITTING, VALVE OR TEE SHALL ALSO BE RESTRAINED BY USING FIELD LOCK GASKETS OR MEGA LUGS. IN ADDITION, POURED-IN-PLACE CONCRETE THRUST BLOCKS SHALL BE PROVIDED AT ALL BENDS, TEES AND PLUGS TO PREVENT MOVEMENT OF THE WATER LINE. BLOCKS SHALL BE CAREFULLY PLACED TO ENSURE IT IS POSITIONED PROPERLY TO WITHSTAND THE RESULTANT FORCES AT EACH BEND, FITTING, ETC. AND SHALL BEAR ON STABLE UNDISTURBED GROUND CAPABLE OF WITHSTANDING THE POTENTIAL LOAD.
19. A PRESSURE REDUCING VALVE WILL BE NEEDED AFTER EACH METER.

3. DUCTILE IRON PIPE: PUSH-ON JOINTS, CEMENT LINED, PRESSURE CLASS 350 FOR 4 INCH THROUGH 12 INCH, THICKNESS CLASS 52 FOR 16 INCH, MANUFACTURING STANDARDS AWWA C150 AND C151. POLYETHYLENE ENCASEMENT SHALL BE INSTALLED ON ALL DUCTILE PIPE AND FITTINGS.
2. DUCTILE IRON FITTINGS (TEES, CROSSES, BENDS, REDUCERS, SLEEVES, COUPLINGS AND PLUGS): MECHANICAL JOINT, TEES, CROSSES, BENDS AND REDUCERS ARE TO BE CEMENT LINED; WORKING PRESSURE RATING 250 PSI, MANUFACTURING STANDARDS ANSI A21.53, ANSI A21.4 AND ANSI A21.10. COMPACT STYLE IS ACCEPTABLE. RETAINER GLANDS SHALL BE INSTALLED WHEREVER THERE IS A POSSIBILITY OF JOINT SEPARATION.
3. FIRE HYDRANTS: POST TYPE, BREAKABLE FLANGE DESIGN FOR TRAFFIC COLLISIONS, 5 1/4" DIAMETER MAIN VALVE, ONE 4 1/2" PUMPER AND TWO 2 1/2" HOSE NOZZLES, 6" MJ INLET, MAIN VALVE TO OPEN LEFT, DIRECTION OF OPENING TO BE INDICATED WITH ARROW CAST ON HYDRANT, TO BE DESIGNED FOR 5 FOOT TRENCH, NATIONAL STANDARD THREADS ON NOZZLES, O-RING PACKING PREFERRED, TYPE 304 STAINLESS STEEL BOLTS AND NUTS, OPERATING MAIN NUT ON CAPS: 1 1/2" PENTAGON, COLOR YELLOW PAINT ON BODY TRIMMED WITH RED PAINT ON BONNET AND CAPS, AWWA STANDARD C502, MUELLER CENTURION A423, US PIPE M-94, CLOW MEDALLION OR AMERICAN DARLING B-84-B.
4. TAPPING VALVES: RESILIENT SEAT, IRON BODY, STAINLESS STEEL BONNET BOLTS AND NUTS, MECHANICAL JOINT ACCESSORIES, NON-RISING STEM, FOR UNDERGROUND SERVICE, O-RING PACKING PREFERRED, OPEN RIGHT (CLOCKWISE) 2 INCH SQUARE OPERATING NUT, MANUFACTURING STANDARDS AND PRESSURE RATINGS AWWA SPECIFICATION C500.
4. "THROUGH 12" GATE VALVES: RESILIENT SEAT, IRON BODY, STAINLESS STEEL BONNET BOLTS AND NUTS, MECHANICAL JOINT ACCESSORIES, NON-RISING STEM, FOR UNDERGROUND SERVICE, O-RING PACKING PREFERRED, OPEN RIGHT (CLOCKWISE), 2 INCH SQUARE OPERATING NUT, MANUFACTURING STANDARDS AND PRESSURE RATINGS AWWA C509, MUELLER A-2360 OR EQUAL.
6. VALVE BOXES: TWO PIECE, CAST IRON, SCREW TYPE FOR ADJUSTABLE HEIGHT, HEIGHT RANGE TO BE APPROXIMATELY 36 TO 60 INCHES. THEY ARE TO INCLUDE A WELL FITTING CAST IRON LID, THE WORD "WATER" TO BE CAST ON LID, B SIZE.
7. 2" WATER MAIN: 2" WATER MAIN SHALL BE SOFT DRAWN TYPE "K" COPPER TUBING OR HIGH DENSITY POLYETHYLENE PLASTIC (HDPE), COPPER TUBE SIZE, AS CALLED OUT ON THE PLAN. IF HDPE IS USED, IT SHALL BE 200 PSI, SDR 9 WITH MARKING TAPE AND A 12 GAUGE COPPER TRACER WIRE LAID IN THE TRENCH. BRASS COMPRESSION FITTINGS SHALL BE USED. STAINLESS STEEL STIFFENERS ARE NECESSARY AT EACH JOINT.
8. POLYETHYLENE ENCASEMENT: EIGHT MIL THICK POLYETHYLENE TUBE MANUFACTURED IN ACCORDANCE WITH ANSI/AWWA C105/A21.5. POLYETHYLENE ADHESIVE TAPE, 1 1/2" WIDE, IS TO SEAL JOINTS.
9. BLOW OFF ASSEMBLIES: KUPFERLE FOUNDRY T500 OR APPROVED EQUAL. INSTALL IN VALVE BOX. INSTALL 2" CURB STOP WITH CURB BOX AHEAD OF EACH BLOW OFF.

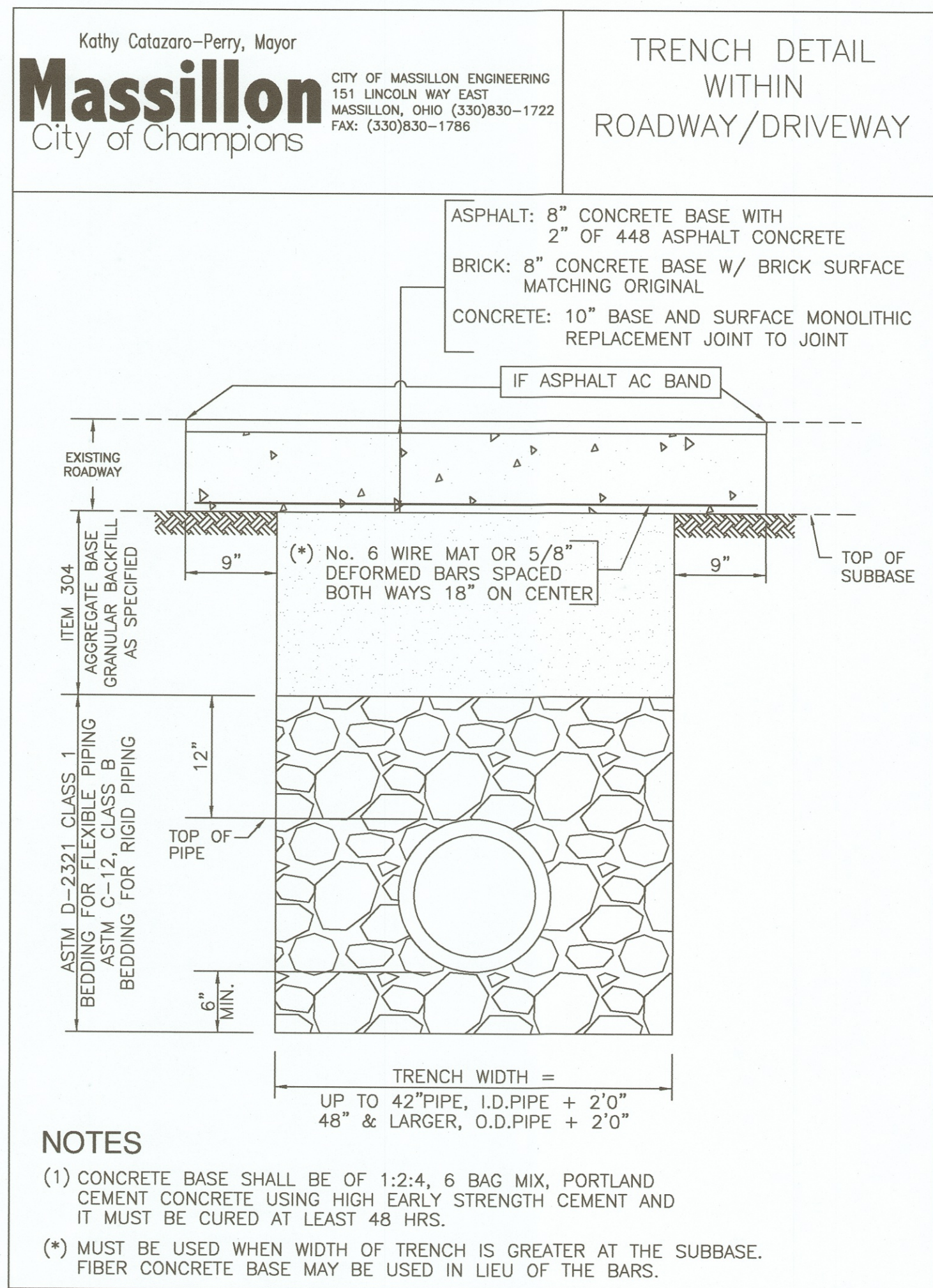


- 1) ITEM 608 ** 4" CONCRETE WALK (5" THICK IN R/W)
2) ITEM 304 4" AGGREGATE BASE
3) ITEM 204 SUBGRADE COMPACTION

CONTRACTOR TO SUBMIT SHOP DRAWINGS OF PAVEMENT
JOINT LOCATIONS.

ALL ITEMS FROM STATE OF OHIO DEPARTMENT OF
TRANSPORTATION, CONSTRUCTION & MATERIAL
SPECIFICATIONS, LATEST VERSION.

** IF SIDEWALK IS TO BE REINFORCED, MINIMUM THICKNESS SHALL BE 5". IF SIDEWALK IS PLACED ACROSS A DRIVE ACCESS, THE THICKNESS SHALL BE 6" (LIGHT DUTY) OR 8" (HEAVY DUTY).



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CHKD BY: <u>JDS</u>	REV. BY: _____	DATE: _____	DESC.: _____
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CHK PG: <u>XXX</u>	REV. BY: _____	DATE: _____	DESC.: _____
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SCALES
HORIZ:
VERT:
CONTOUR INT:

SITE NOTES & DETAILS

NEW WAREHOUSE BUILDING

FOR: CHARLES & RITA STEINMETZ

LOCATED ON OUT LOT #979, THE CITY OF MASSILLON

STARK COUNTY, OH

TEMPORARY SEEDING			
SEEDING DATES	SPECIES	LB./1000 FT2	LB/ACRE
MARCH 1 TO AUGUST 15	OATS	3	128
	TALL FESCUE	1	40
	ANNUAL RYEGRASS	1	40
	PERENNIAL RYEGRASS	1	40
	TALL FESCUE	1	40
	ANNUAL RYEGRASS	1	40
	ANNUAL RYEGRASS	1.25	55
	PERENNIAL RYEGRASS	3.25	142
	CREEPING RED FESCUE	0.40	17
	KENTUCKY BLUEGRASS	0.40	17
	OATS	3	128
	TALL FESCUE	1	40
	ANNUAL RYEGRASS	1	40
AUGUST 16TH TO NOVEMBER	RYE	3	112
	TALL FESCUE	1	40
	ANNUAL RYEGRASS	1	40
	WHEAT	3	120
	TALL FESCUE	1	40
	ANNUAL RYEGRASS	1	40
	PERENNIAL RYE	1	40
	TALL FESCUE	1	40
	ANNUAL RYEGRASS	1	40
	PERENNIAL RYEGRASS	1.25	40
	CREEPING RED FESCUE	3.25	40
	KENTUCKY BLUEGRASS	0.40	40
NOVEMBER 1 TO FEB. 29	USE MULCH ONLY OR DORMANT SEEDING		

NOTE: OTHER APPROVED SPECIES MAY BE SUBSTITUTED.

- STRUCTURAL EROSION AND SEDIMENT CONTROL PRACTICES SUCH AS DIVERSIONS AND SEDIMENT TRAPS SHALL BE INSTALLED AND STABILIZED WITH TEMPORARY SEEDING PRIOR TO GRADING THE REST OF THE CONSTRUCTION SITE.
- TEMPORARY SEED SHALL BE APPLIED BETWEEN CONSTRUCTION OPERATIONS ON SOIL THAT WILL NOT BE GRADED OR REWORKED FOR 14 DAYS OR GREATER. THESE IDLE AREAS SHALL BE SEEDDED WITHIN 7 DAYS AFTER GRADING.
- THE SEEDBED SHOULD BE PULVERIZED AND LOOSE TO ENSURE THE SUCCESS OF ESTABLISHING VEGETATION. TEMPORARY SEEDING SHOULD NOT BE POSTPONED IF IDEAL SEEDBED PREPARATION IS NOT POSSIBLE.
- SOIL AMENDMENTS: TEMPORARY VEGETATION SEEDING RATES SHALL ESTABLISH ADEQUATE STANDS OF VEGETATION, WHICH MAY REQUIRE THE USE OF SOIL AMENDMENTS. BASE RATES FOR LIME AND FERTILIZER SHALL BE USED.
- SEEDING METHOD: SEED SHALL BE APPLIED UNIFORMLY WITH A CYCLONE SPREADER, DRILL, CULTIPACKER SEEDER, OR HYDROSEEDER. WHEN FEASIBLE, SEED THAT HAS BEEN BROADCAST SHALL BE COVERED BY RAKING OR DRAGGING AND THEN LIGHTLY TAMPED INTO PLACE USING A ROLLER OR CULTIPACKER. IF HYDROSEEDING IS USED, THE SEED AND FERTILIZER WILL BE MIXED ON-SITE AND THE SEEDING SHALL BE DONE IMMEDIATELY AND WITHOUT INTERRUPTION.

DE-WATERING

- A DE-WATERING PLAN SHALL BE DEVELOPED PRIOR TO THE COMMENCEMENT OF ANY PUMPING ACTIVITIES.
- THE DE-WATERING PLAN SHALL INCLUDE ALL PUMPS AND RELATED EQUIPMENT NECESSARY FOR THE DEWATERING ACTIVITIES AND DESIGNATE AREAS FOR PLACEMENT OF PRACTICES. OUTLETS FOR PRACTICES SHALL BE PROTECTED FROM SCOUR EITHER BY RIPRAP PROTECTION, FABRIC LINER, OR OTHER ACCEPTABLE METHOD OF OUTLET PROTECTION.
- WATER THAT IS NOT DISCHARGED INTO A SETTLING/TREATMENT BASIN BUT DIRECTLY INTO WATERS OF THE STATE SHALL BE MONITORED HOURLY. DISCHARGED WATER SHALL BE WITHIN ±5' F OF THE RECEIVING WATERS.
- SETTLING BASINS SHALL NOT BE GREATER THAN FOUR (4) FEET IN DEPTH. THE BASIN SHALL BE CONSTRUCTED FOR SEDIMENT STORAGE AS OUTLINED IN CHAPTER 6. SEDIMENT BASIN OR SEDIMENT TRAP. THE INLET AND OUTLET FOR THE BASIN SHALL BE LOCATED AT THE FURTHEST POINTS OF THE STORAGE. A FLOATING OUTLET SHALL BE USED TO ENSURE THAT SETTLED SOLIDS DO NOT RE-SUSPEND DURING THE DISCHARGE PROCESS. THE SETTLING BASIN SHALL BE CLEANED OUT WHEN THE STORAGE HAS BEEN REDUCED BY 50% OF ITS ORIGINAL CAPACITY.
- ALL NECESSARY NATIONAL, STATE AND LOCAL PERMITS SHALL BE SECURED PRIOR TO DISCHARGING INTO WATERS OF THE STATE.

PERMANENT SEEDING

SEED MIX	SEEDING RATE		NOTES:
	LBS./ACRE	LBS./1,000 SQ. FEET	
	GENERAL USE		
CREEPING RED FESCUE DOMESTIC RYEGRASS KENTUCKY BLUEGRASS	20-40 10-20 20-40	1/2-1 1/4-1/2 1/2-1	FOR CLOSE MOWING & FOR WATERWAYS WITH <2.0 FT/SEC VELOCITY
TALL FESCUE TURF-TYPE (DWARF) FESCUE	40-50 90	1-1 1/4 2 1/4	
STEEP BANKS OR CUT SLOPES			
TALL FESCUE CROWN VETCH TALL FESCUE	40-50 10-20 20-30	1-1 1/4 1/4-1/2 1/2-3/4	DO NOT SEED LATER THAN AUGUST
FLAT PEA TALL FESCUE	20-25 20-30	1/2-3/4 1/2-3/4	DO NOT SEED LATER THAN AUGUST
ROAD DITCHES AND SWALES			
TALL FESCUE TURF-TYPE (DWARF) FESCUE KENTUCKY BLUEGRASS	40-50 80 5	1-1 1/4 2 1/4 0.1	
LAWNS			
KENTUCKY BLUEGRASS PERENNIAL RYEGRASS	100-120	2 2	
KENTUCKY BLUEGRASS CREEPING RED FESCUE	100-120	2 1-1/2	FOR SHADED AREAS

SITE PREPARATION:

- SUBSOILER, PLOW, OR OTHER IMPLEMENT SHALL BE USED TO REDUCE SOIL COMPACTION AND ALLOW MAXIMUM INFILTRATION. (MAXIMIZING INFILTRATION WILL HELP CONTROL BOTH RUNOFF RATE AND WATER QUALITY.) SUBSOILING SHOULD BE DONE WHEN THE SOIL MOISTURE IS LOW ENOUGH TO ALLOW THE SOIL TO CRACK OR FRACTURE. SUBSOILING SHALL NOT BE DONE ON SLIP-PRONE AREAS WHERE SOIL PREPARATION SHOULD BE LIMITED TO WHAT IS NECESSARY FOR ESTABLISHING VEGETATION.
- THE SITE SHALL BE GRADED AS NEEDED TO PERMIT THE USE OF CONVENTIONAL EQUIPMENT FOR SEEDBED PREPARATION AND SEEDING.
- TOPSOIL SHALL BE APPLIED WHERE NEEDED TO ESTABLISH VEGETATION.

SEEDBED PREPARATION:

- LIME: AGRICULTURAL GROUND LIMESTONE SHALL BE APPLIED TO ACID SOIL AS RECOMMENDED BY A SOIL TEST. IN LIEU OF A SOIL TEST, LIME SHALL BE APPLIED AT THE RATE OF 100 POUNDS PER 1,000-SQ. FT. OR 2 TONS PER ACRE.
- FERTILIZER: FERTILIZER SHALL BE APPLIED AS RECOMMENDED BY A SOIL TEST. IN PLACE OF A SOIL TEST, FERTILIZER SHALL BE APPLIED AT A RATE OF 25 POUNDS PER 1,000-SQ. FT. OR 1000 POUNDS PER ACRE OF A 10-10-10 OR 12-12-12 ANALYSES.
- THE LIME AND FERTILIZER SHALL BE WORKED INTO THE SOIL WITH A DISK HARROW, SPRING-TOOTH HARROW, OR OTHER SUITABLE FIELD IMPLEMENT TO A DEPTH OF 3 INCHES. ON SLOPING LAND, THE SOIL SHALL BE WORKED ON THE CONTOUR.

SEEDING DATES AND SOIL CONDITIONS:

SEEDING SHOULD BE DONE MARCH 1 TO MAY 31 OR AUGUST 1 TO SEPTEMBER 30. IF SEEDING OCCURS OUTSIDE OF THE ABOVE-SPECIFIED DATES, ADDITIONAL MULCH AND IRRIGATION MAY BE REQUIRED TO ENSURE A MINIMUM OF 80% GERMINATION. TILLAGE FOR SEEDBED PREPARATION SHOULD BE DONE WHEN THE SOIL IS DRY ENOUGH TO CRUMBLE AND NOT FORM RIBBONS WHEN COMPRESSED BY HAND. FOR WINTER SEEDING, SEE THE FOLLOWING SECTION ON DORMANT SEEDING.

DORMANT SEEDINGS:

- SEEDINGS SHOULD NOT BE MADE FROM OCTOBER 1 THROUGH NOVEMBER 20. DURING THIS PERIOD, THE SEEDS ARE LIKELY TO GERMINATE BUT PROBABLY WILL NOT BE ABLE TO SURVIVE THE WINTER.

GRADE TREATMENT

CUT SLOPES--GREATER THAN 3:1 SLOPES

- STAIR-STEP GRADING MAY BE CARRIED OUT ON ANY MATERIAL SOFT ENOUGH TO BE RIPPED WITH A BULLDOZER. THE RATIO OF THE HORIZONTAL DISTANCE TO THE VERTICAL CUT DISTANCE SHALL BE FLATTER THAN 1:1 AND THE HORIZONTAL PORTION OF THE "STEP" SHALL SLOPE TOWARD THE VERTICAL WALL. INDIVIDUAL VERTICAL CUTS SHALL NOT BE MORE THAN 24 INCHES ON SOFT SOIL MATERIALS AND NOT MORE THAN 36 INCHES IN ROCKY MATERIALS.
- GROOVING MAY BE MADE WITH ANY APPROPRIATE IMPLEMENT WHICH CAN BE SAFELY OPERATED ON THE SLOPE AND WHICH WILL NOT CAUSE UNDUE COMPACTION. SUGGESTED IMPLEMENTS INCLUDE DISCS, TILLERS, SPRING HARROWS, AND THE TEETH ON A FRONT-END LOADER BUCKET. SUCH GROOVES SHALL NOT BE LESS THAN 3 INCHES DEEP NOR FURTHER THAN 15 INCHES APART.

FILL SLOPES--GREATER THAN 3:1 SLOPES

FILL SLOPES STEEPER THAN 3:1 SHALL BE GROOVED OR ALLOWED TO REMAIN ROUGH AS THEY ARE CONSTRUCTED UTILIZING METHOD (1) OR (2) BELOW.

- GROOVING MAY BE MADE WITH ANY APPROPRIATE IMPLEMENT WHICH CAN BE SAFELY OPERATED ON THE SLOPE AND WHICH WILL NOT CAUSE UNDUE COMPACTION SUCH AS DISCS, TILLERS, SPRING HARROWS, AND THE TEETH ON A FRONT-END LOADER BUCKET. GROOVES LEFT SHALL NOT BE LESS THAN 3 INCHES DEEP NOR FURTHER THAN 15 INCHES APART.
- AS LIFTS OF THE FILL ARE CONSTRUCTED, SOIL AND ROCK MATERIALS MAY BE ALLOWED TO FALL NATURALLY ONTO THE SLOPE SURFACE. AT NO TIME SHALL SLOPES BE BLADED OR SCRAPPED TO PRODUCE A SMOOTH, HARD SURFACE.

CUTS, FILLS, AND GRADED AREAS WHICH WILL BE MOWED

- MOWED SLOPES SHOULD NOT BE STEEPER THAN 3:1 AND SHALL AVOID EXCESSIVE ROUGHNESS. THESE AREAS MAY BE ROUGHENED WITH SHALLOW GROOVES SUCH AS THOSE, WHICH REMAIN AFTER TILLING, DISCING, HARROWING, RAKING, OR USE OF A CULTIPACKER-SEEDER. THE FINAL PASS OF ANY SUCH TILLAGE IMPLEMENT SHALL BE ON THE CONTOUR (PERPENDICULAR TO THE SLOPE).
- GROOVES FORMED BY IMPLEMENTS SHALL BE NOT LESS THAN 1 INCH DEEP AND NOT FURTHER THAN 12 INCHES APART. FILL SLOPES THAT ARE LEFT ROUGH DURING CONSTRUCTION MAY BE SMOOTHED WITH A CHAIN HARROW OR SIMILAR IMPLEMENT TO FACILITATE MOWING.

CONCRETE WASHOUT FACILITY

N.T.S.

NOTES:
TEMPORARY CONCRETE WASHOUT FACILITIES SHOULD BE LOCATED A MINIMUM OF 50 FT FROM STORM DRAIN INLETS, OPEN DRAINAGE FACILITIES, AND WATERCOURSES. EACH FACILITY SHOULD BE LOCATED AWAY FROM CONSTRUCTION TRAFFIC OR ACCESS AREAS TO PREVENT DISTURBANCE OR TRACKING.

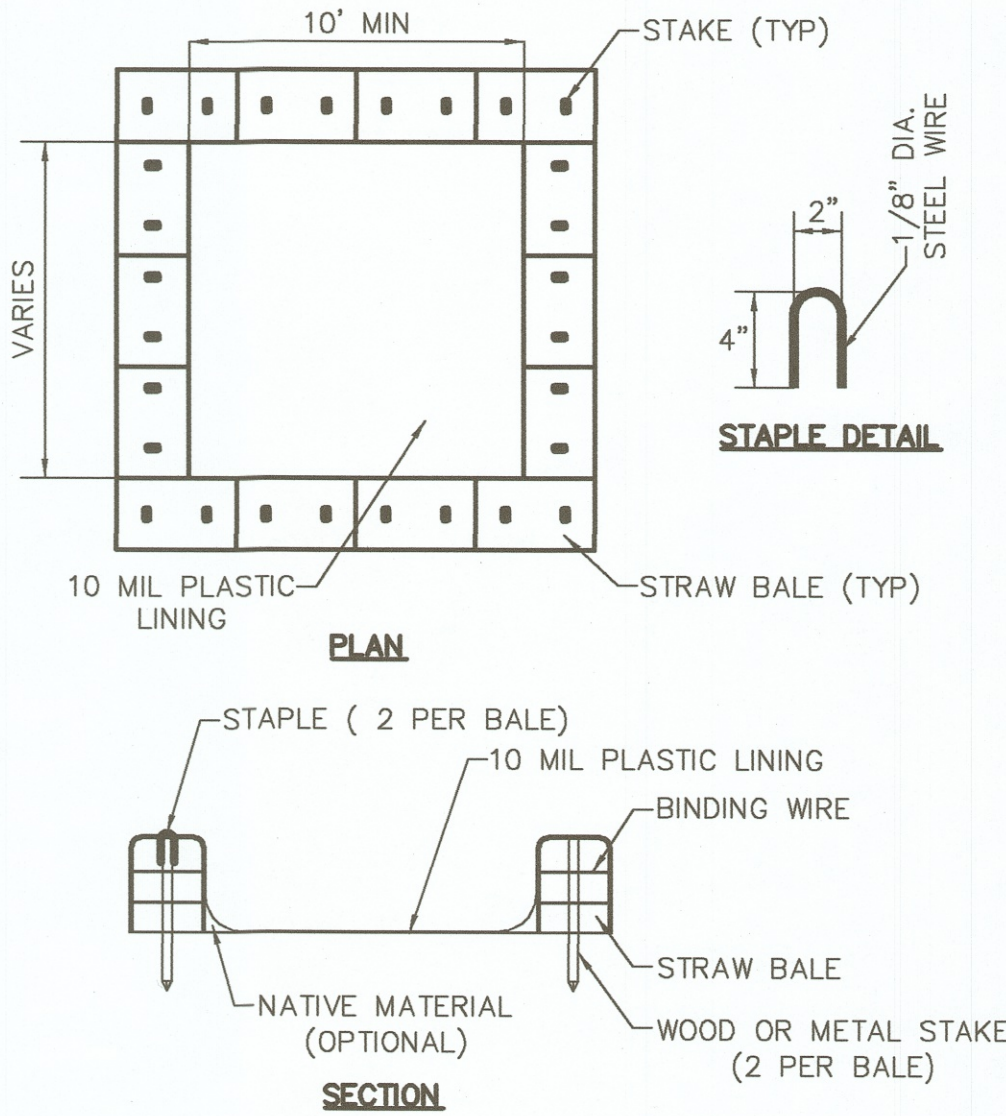
A SIGN SHOULD BE INSTALLED ADJACENT TO EACH WASHOUT FACILITY TO INFORM CONCRETE EQUIPMENT OPERATORS TO UTILIZE THE PROPER FACILITIES.

TEMPORARY CONCRETE WASHOUT FACILITIES SHOULD BE CONSTRUCTED ABOVE GRADE OR BELOW GRADE AT THE OPTION OF THE CONTRACTOR. TEMPORARY CONCRETE WASHOUT FACILITIES SHOULD BE CONSTRUCTED AND MAINTAINED IN SUFFICIENT QUANTITY AND SIZE TO CONTAIN ALL LIQUID AND CONCRETE WASTE GENERATED BY WASHOUT OPERATIONS.

ONLY CONCRETE FROM MIXER TRUCK CHUTES SHOULD BE WASHED INTO CONCRETE WASH OUT.

CONCRETE WASHOUT FROM CONCRETE PUMPER BINS CAN BE WASHED INTO CONCRETE PUMPER TRUCKS AND DISCHARGED INTO DESIGNATED WASHOUT AREA OR PROPERLY DISPOSED OF OFFSITE.

ONCE CONCRETE WASTES ARE WASHED INTO THE DESIGNATED AREA AND ALLOWED TO HARDEN, THE CONCRETE SHOULD BE BROKEN UP, REMOVED, AND DISPOSED OF ON A REGULAR BASIS.



TOPSOILING

SALVAGING AND STOCKPILING:

- DETERMINE THE DEPTH AND SUITABILITY OF TOPSOIL AT THE SITE. (FOR HELP, CONTACT YOUR LOCAL SWCD OFFICE TO OBTAIN A COUNTY SOIL SURVEY REPORT).
- PRIOR TO STRIPPING TOPSOIL, INSTALL APPROPRIATE DOWNSLOPE EROSION AND SEDIMENTATION CONTROLS SUCH AS SEDIMENT TRAPS AND BASINS.
- REMOVE THE SOIL MATERIAL NO DEEPER THAN WHAT THE COUNTY SOIL SURVEY DESCRIBES AS "SURFACE SOIL" (IE. A OR AP HORIZON).
- CONSTRUCT STOCKPILES IN ACCESSIBLE LOCATIONS THAT DO NOT INTERFERE WITH NATURAL DRAINAGE. INSTALL APPROPRIATE SEDIMENT CONTROLS TO TRAP SEDIMENT SUCH AS SILT FENCE IMMEDIATELY ADJACENT TO THE STOCKPILE OR SEDIMENT TRAPS OR BASINS DOWNSTREAM OF THE STOCKPILE. STOCKPILE SIDE SLOPES SHALL NOT EXCEED A RATIO OF 2:1.
- IF TOPSOIL IS STORED FOR MORE THAN 21DAYS, IT SHOULD BE TEMPORARY SEEDDED, OR COVERED WITH A TARP.

SPREADING THE TOPSOIL

- PRIOR TO APPLYING TOPSOIL, THE TOPSOIL SHOULD BE PULVERIZED.
- TO ENSURE BONDING, GRADE THE SUBSOIL AND ROUGHEN THE TOP 3-4 IN. BY DISKING.
- DO NOT APPLY WHEN SITE IS WET, MUDDY, OR FROZEN, BECAUSE IT MAKES SPREADING DIFFICULT, CAUSES COMPACTION PROBLEMS, AND INHIBITS BONDING WITH SUBSOIL.
- APPLY TOPSOIL EVENLY TO A DEPTH OF AT LEAST 4 INCHES AND COMPACT SLIGHTLY TO IMPROVE CONTACT WITH SUBSOIL.
- AFTER SPREADING, GRADE AND STABILIZE WITH SEEDING OR APPROPRIATE VEGETATION.