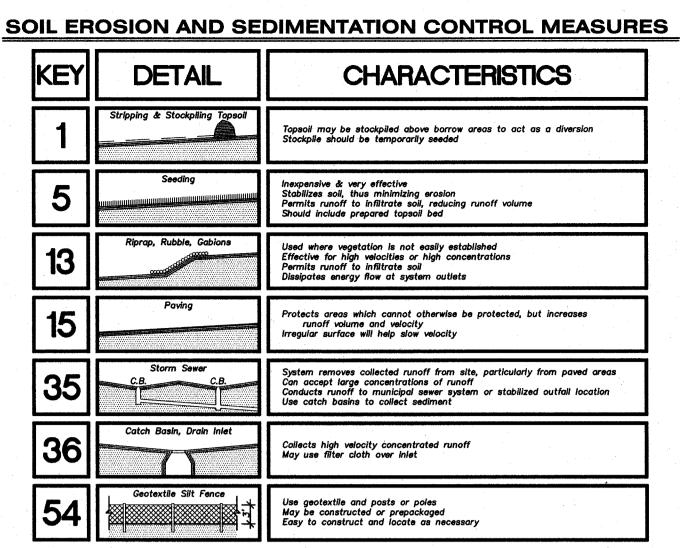


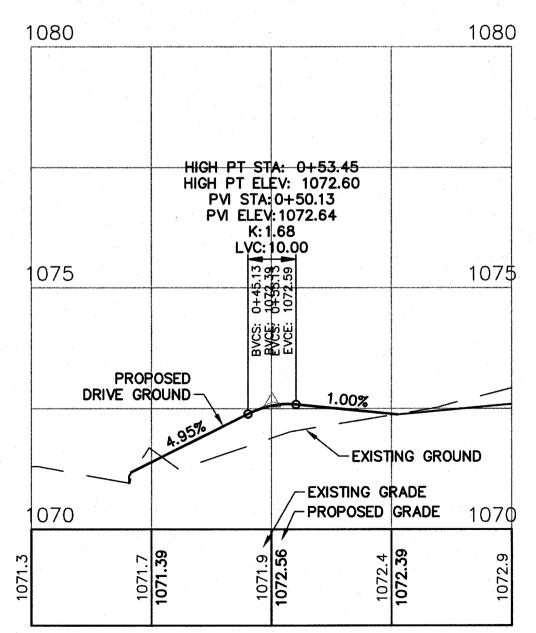
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P PERMANENT MEASURE

GRADING - SESC NOTES

- MATCH EXISTING GRADES AROUND PERIMETER WITH SLOPES AS SHOWN.
- 2. ALL SPOT ELEVATIONS ARE TOP OF PAVEMENT GRADES AT EDGE OF METAL (EOM) UNLESS OTHERWISE NOTED.
- 3. ALL SOIL EROSION CONTROL MEASURES SHALL BE IN PLACE PRIOR TO MASS
- 4. ALL EXCAVATION AND SITE PREPARATION SHALL BE IN ACCORDANCE WITH THE GEOTECHNICAL ENGINEERING REPORT, PSI PROJECT NO. 0145687 ISSUED 11/05/2013.
- ALL EXISTING ELEVATIONS ARE TO BE VERIFIED AND ACCEPTED AS SHOWN PRIOR TO COMMENCEMENT OF WORK.
- CONTRACTOR SHALL TAKE PRECAUTIONS TO AVOID TRACKING SOIL ONTO ADJACENT ROADWAYS. SCRAPE ROAD AT THE END OF EACH WORKDAY AND SWEEP AT LEAST ONCE A WEEK.
- ANY DISTURBED AREA THAT WILL BE LEFT UNWORKED 5 DAYS OR LONGER MUST BE SEEDED AND MULCHED OR SODDED TO ESTABLISH VEGETATION FOR TEMPORARY STABILIZATION. BASINS TO BE SEEDED AND MULCH BLANKETS APPLIED IMMEDIATELY TO PROVIDE A STABLE BASE AND AVOID EXCESSIVE EROSION.
- STRAW MULCH BLANKETS SHALL BE USED ON 3:1 SLOPES OR GREATER. ALL SLOPES ON SITE SHALL BE 4:1 OR LESS, UNLESS OTHERWISE DIRECTED BY
- ROAD RIGHTS-OF-WAY MUST BE STABILIZED WITH SEED AND MULCH WITHIN 5 DAYS OF COMPLETING UTILITY WORK IN THE RIGHT-OF-WAY.
- 10. AREAS OF EARTH CHANGE THAT ARE DISTURBED BEYOND THE FALL SEEDING DEADLINE (NOV. 1) MUST BE TEMPORARILY STABILIZED WITH A MINIMUM OF STRAW MULCH SECURELY CRIMPED TO THE GROUND.
- ACCUMULATED SEDIMENT TO BE REMOVED FROM STORM SYSTEM UPON COMPLETION OF CONSTRUCTION. ALL TEMPORARY CONTROLS TO BE REMOVED AFTER SITE IS STABILIZED AND VEGETATION ESTABLISHED.



TIMOTHYA STEWART

UNDER THE SUPERVISION OF TIMOTHY ALLEN STEWART, P.E.

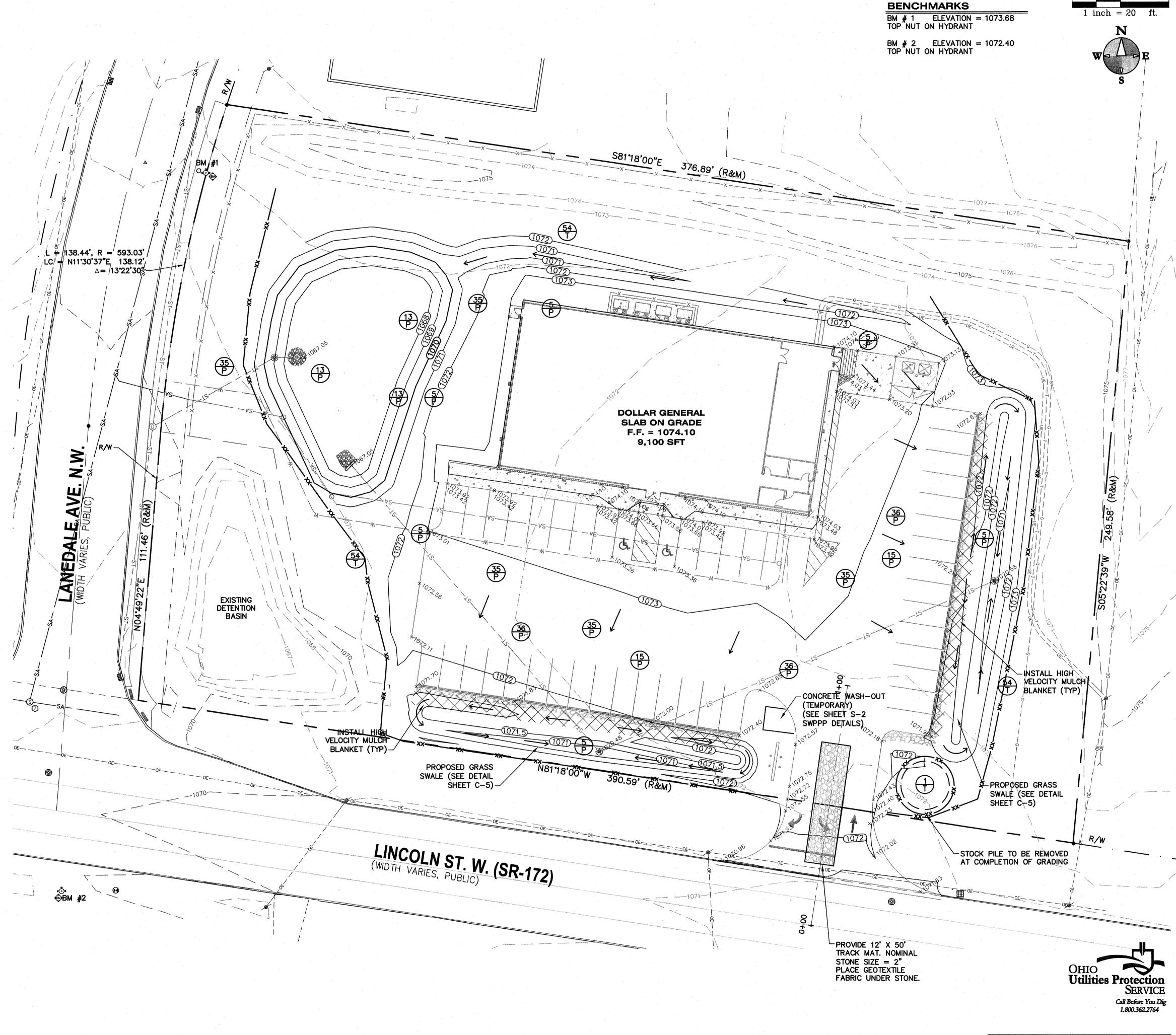
OH LICENSE #75153

DRIVEWAY PROFILE

0+50

HORZ. SCALE: 1"=20' VERT. SCALE: 1"=2"

1+00

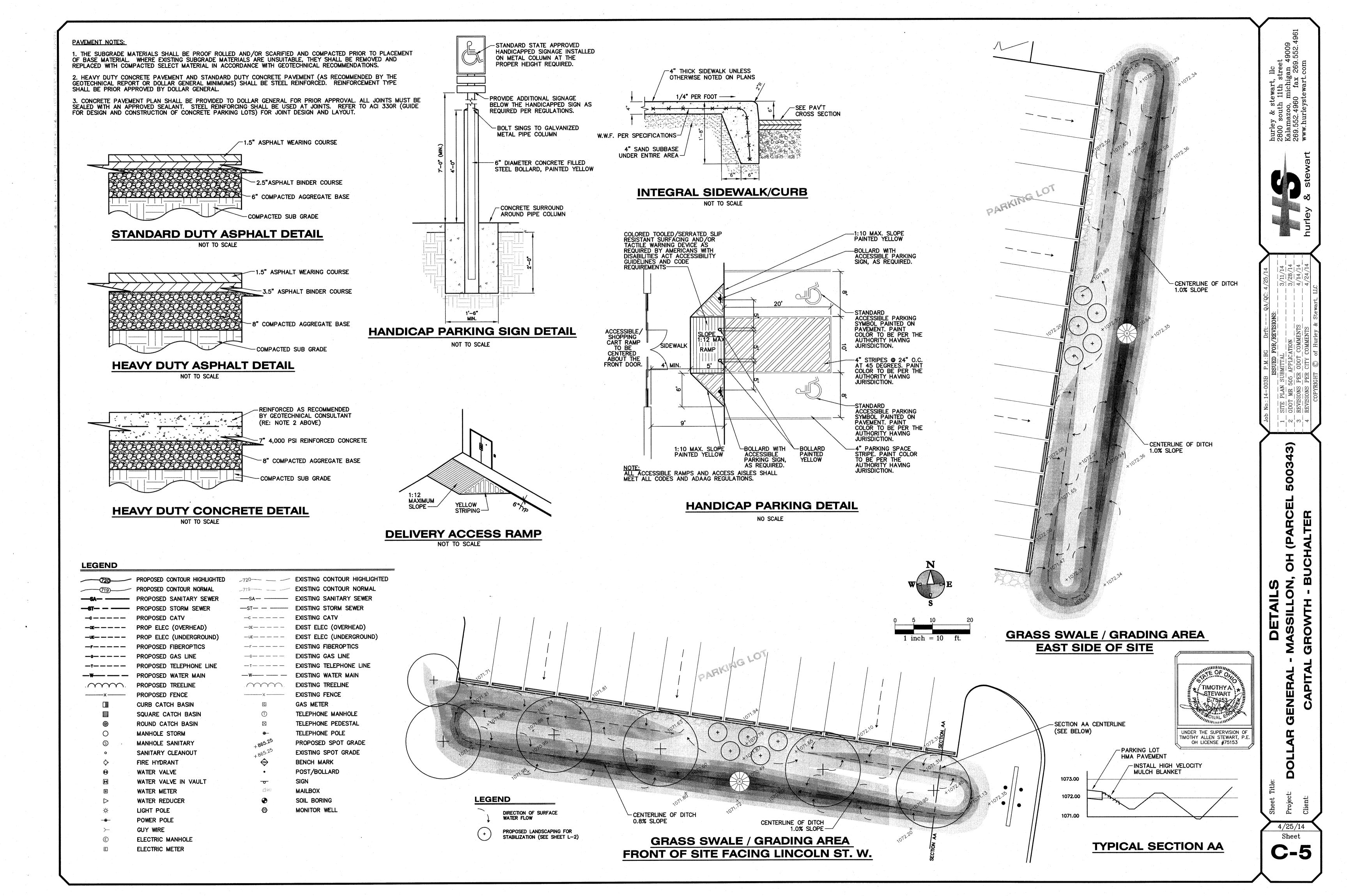


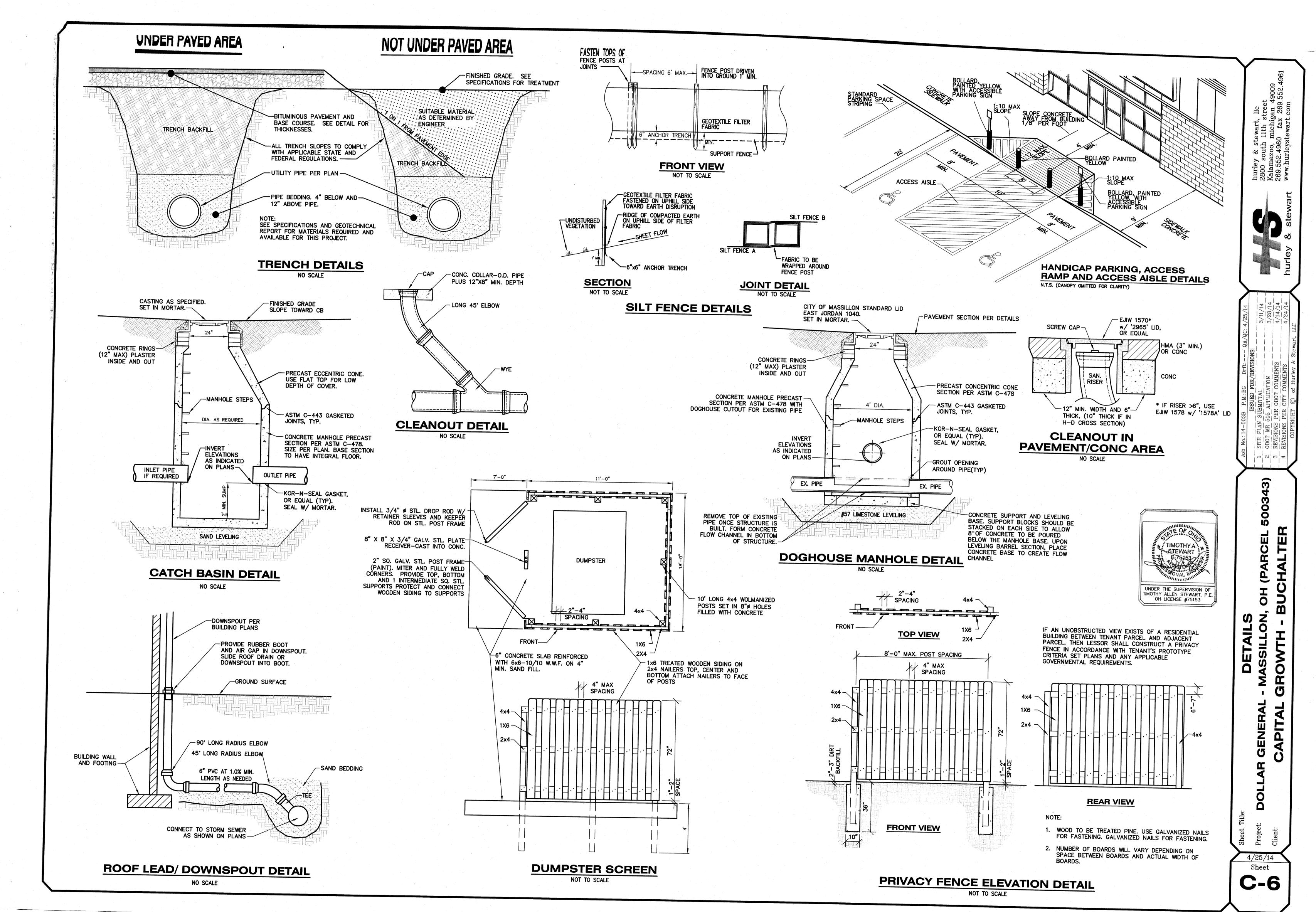


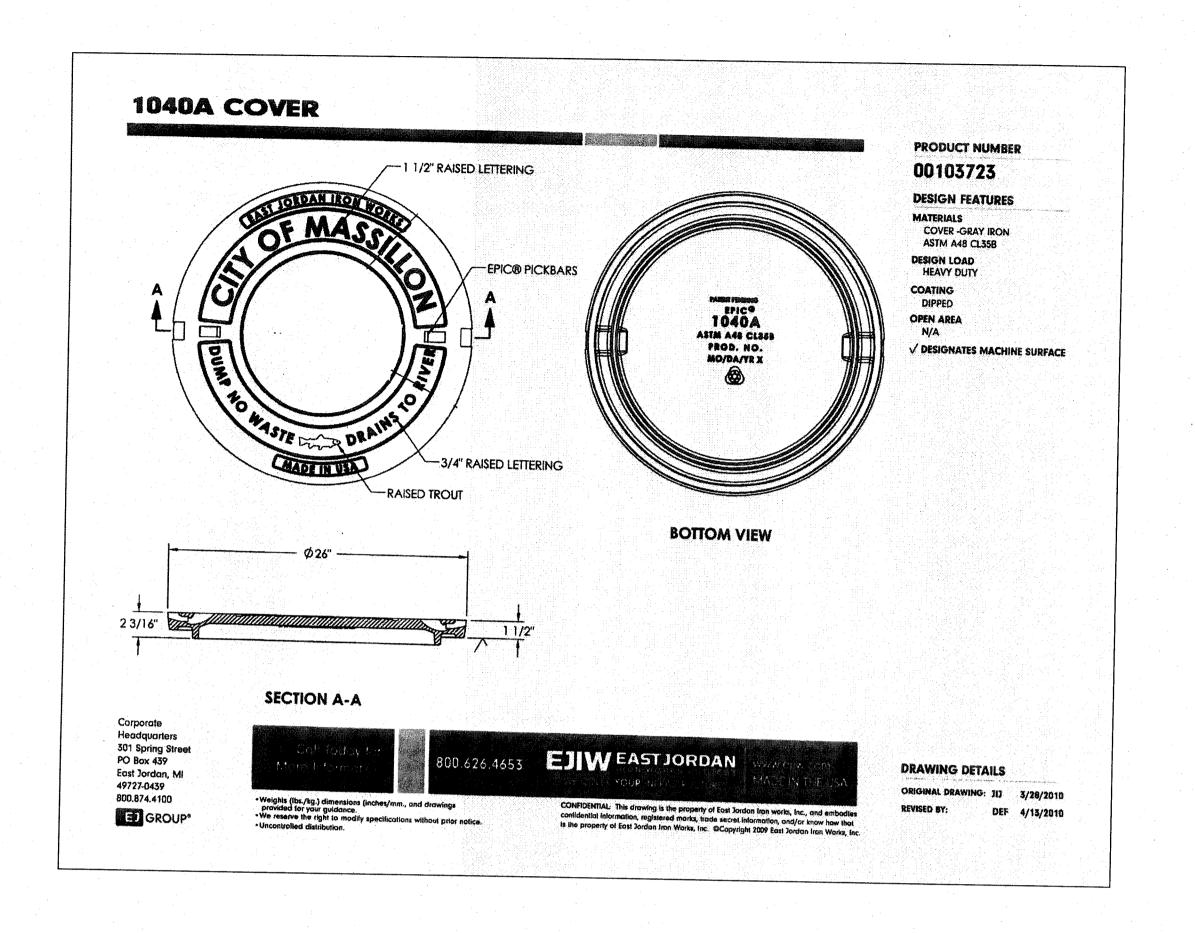
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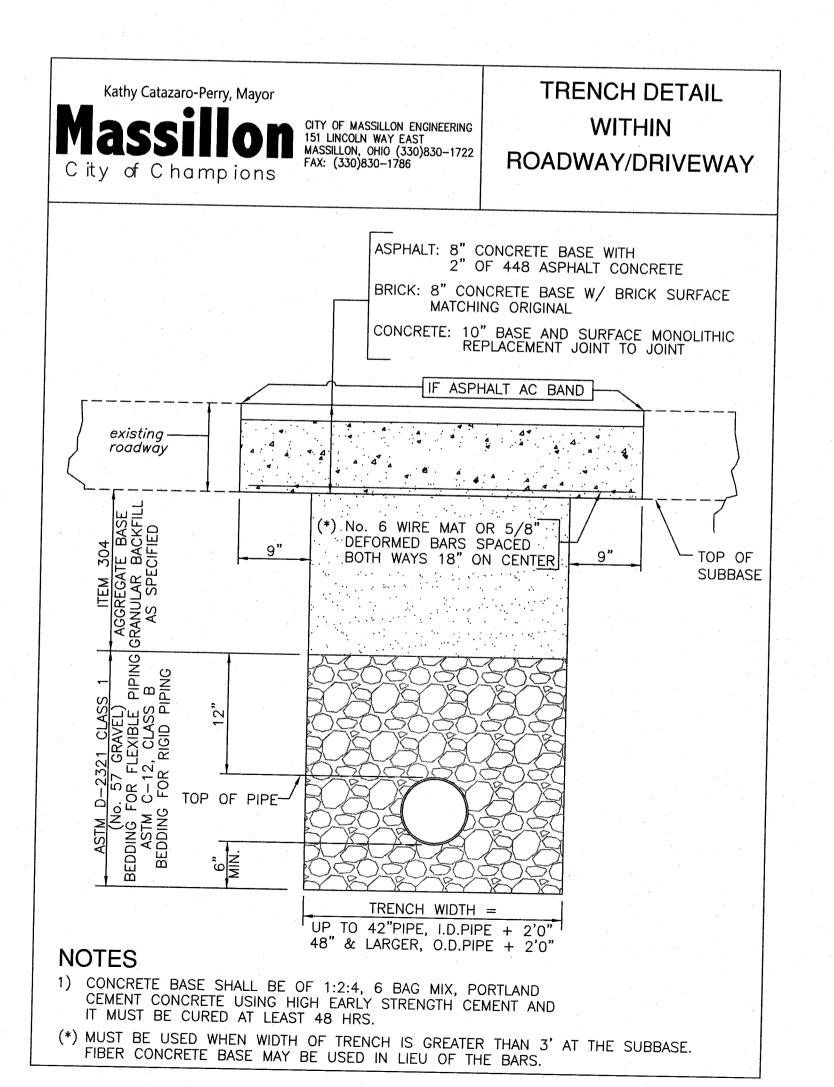
Sheet ALL UTILITIES AS SHOWN ARE APPROXIMATE LOCATIONS DERIVED FROM ACTUAL MEASUREMENTS AND AVAILABLE RECORDS. THEY SHOULD NOT BE INTERPRETED TO BE EXACT LOCATION NOR SHOULD IT BE ASSUMED THAT THEY ARE THE ONLY UTILITIES IN THE AREA.

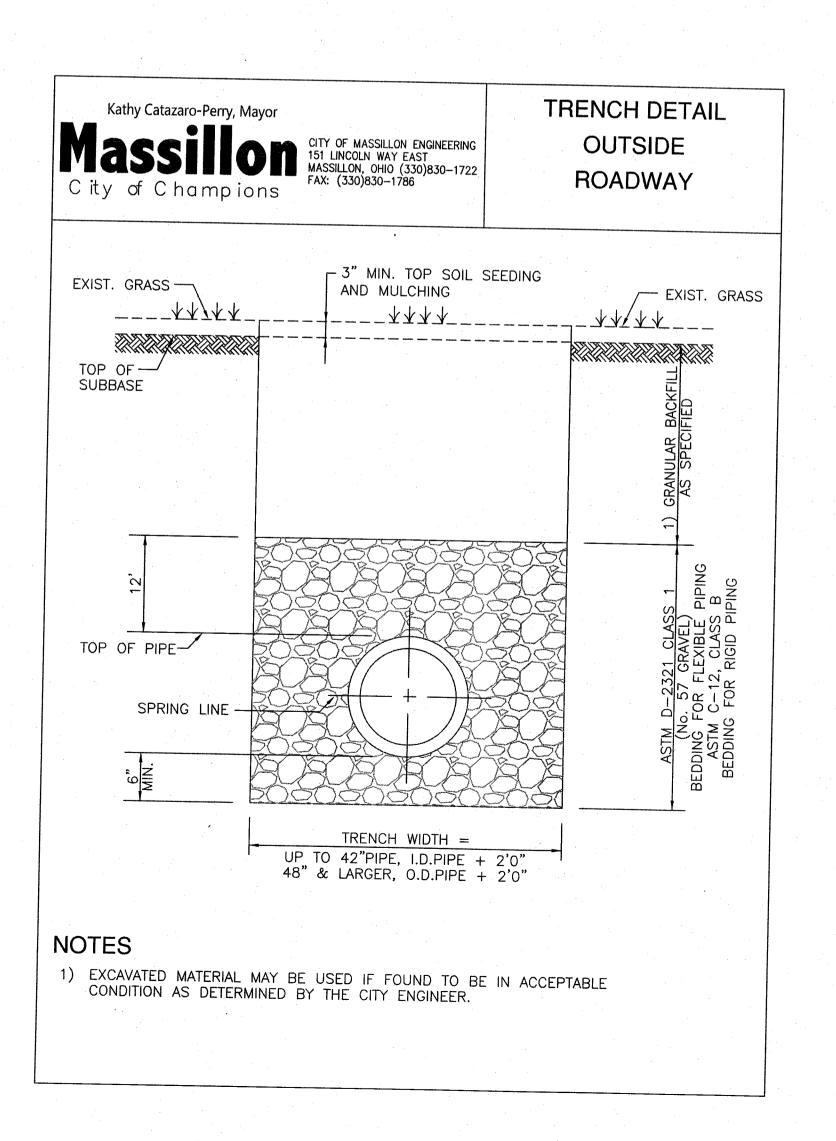
FIELD WORK PERFORMED BY: LANDTECH PROFESSIONAL SURVEYING

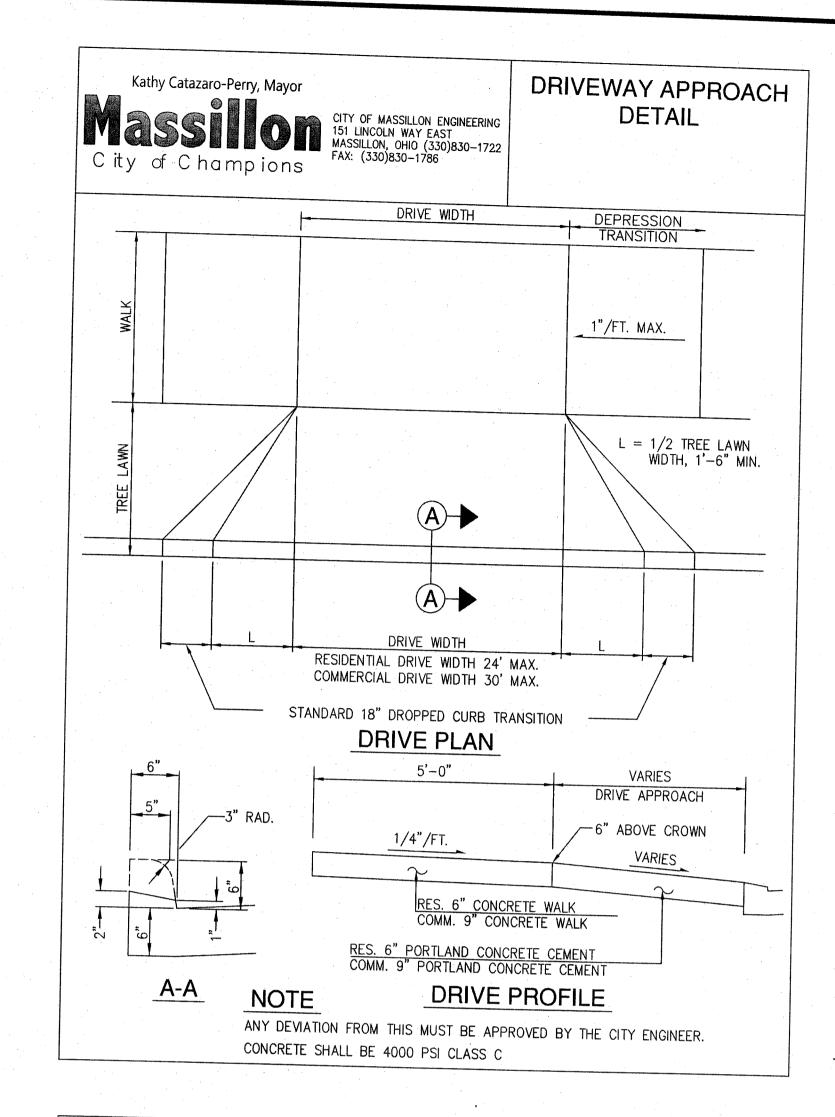


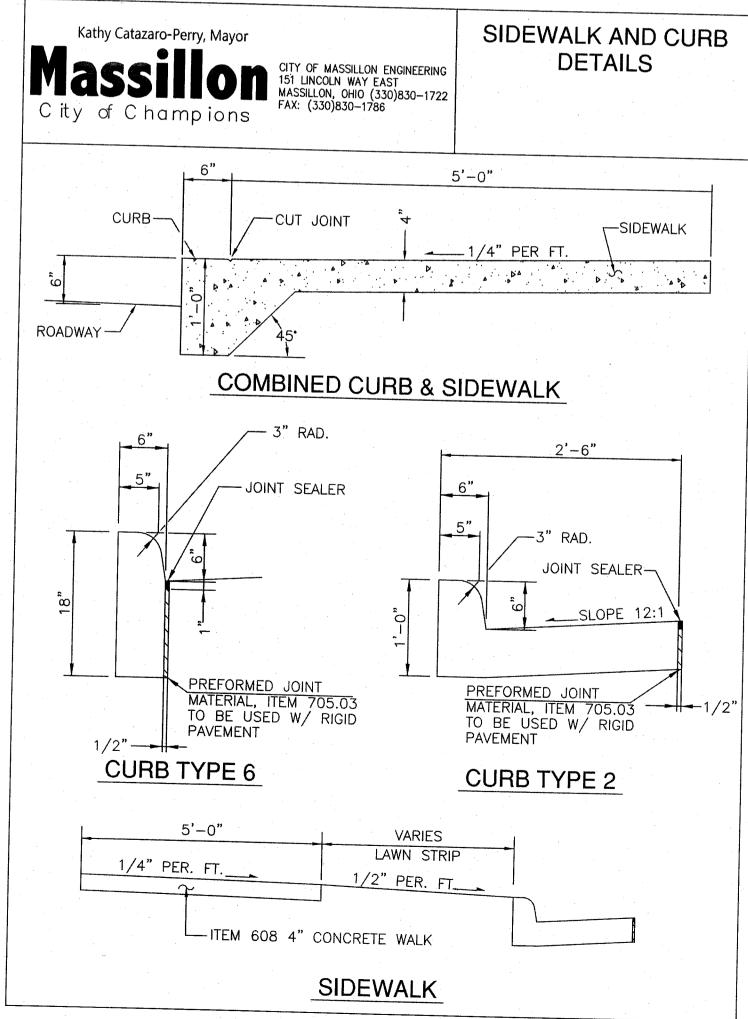












 AITTAL
 111/14
 2800 south 11th s

 PPLICATION
 3/28/14
 Kalamazoo, michig

 ODOT COMMENTS
 4/14/14
 hurley & stewart

 O of Hurley & Stewart. LLC
 www.hurleystewart

4/25/14 Sheet

CAPITAL

C-7

MASSILLON, O

CITY (GENERA

Label	CalcType	Units	Avg	Max	Mir
Parking Lot CalcPts	Illuminance	Fc	8.94	45.0	0.8
Site CalcPts	Illuminance	Fc	0.58	13.1	0.0

Qty	Part Number	Description
5	MFHID-WPF-400MH	400W Full Cutoff Wall Packs
1	MFHID-WPF-50PMH	50W Full Cutoff Wall Packs
6	MFHID-PLL-400MH	400W Parking Lot Lighting ***NOTE: DO NOT tilt fixtures up, keep at 0 degree horizontal plane
3	HW-F188A	25' Parking Lot Pole
3	HW-HID-PLL-MB	Twin Tenon Mounting Bracket
6	HW-HID-PLL-SBL16	16" Housing Backlight Shield
4	MFHID-BH-400MH	400W Bull Horn Lighting
2	HW-HID-BH-MB	Bull Horn Mounting Bracket
2	HW-HID-PLL-RATMB	Bull Horn Right Angle Tenon Mounting Bracket

Luminaire S	chedule				······································	***************************************
Symbol	Qty	Label	Description	Arrangement	Lumens	LLF
	5	MFHID-WPF-400PMH	400W Full Cutoff Wall Pack	SINGLE	44000	0.720
	2	MFHID-BH-400MH	400W Bullhorn Flood Lights	TWIN	32000	0.720
	7	Canopy Strips	Strip	SINGLE	2900	0.940
E	3	MFHID-PLL-400MH SBL Twin	Twin 400W Parking Lot Lighting w. SBL	TWIN	40000	0.720
	1	MFHID-WPF-50PMH 12in	50W Full Cutoff Wall Pack	SINGLE	3400	0.720

	PREFINISHED STEEL POLE
	SIEEL POLE
	PROVIDE SHIMS FOR PROPER VENTILATION.
	CHAMFER CONCRETE 1" 45° ALL AROUND TOP.
3'-0" WHEN POLE IS WITHIN 5'-0" OF VEHICLE TRAFFIC. 6" ELSEWHERE #8 COND. 3/4" PVC "CADWELD" OR USE GROUND ROD CLAMP	#4 TIES AT 12" O.C. (4) HOOKED ANCHORED BOLTS SUPPLIED WITH LIGHT POLE. 1" PVC CONDUIT
5/8" x 72" COPPERWELD GROUND ROD	(8) #6 BARS VERTICAL, 2" CLEAR
- I was a second of the second	FOUNDATION
	SCALE

Luminaire Location Summary			
Label	Fix. Ht.	Orient	Tilt
Canopy Strips	10	0	0
Canopy Strips	10	0	0
Canopy Strips	10	0	0
Canopy Strips	10	0	0
Canopy Strips	10	0	0
Canopy Strips	10	0	0
Canopy Strips	10	0	0
MFHID-WPF-400PMH	12	0	0
MFHID-WPF-400PMH	12	0	0
MFHID-WPF-400PMH	12	0	0
MFHID-WPF-50PMH 12in	12	180	0
MFHID-PLL-400MH SBL Twin	25	90	0
MFHID-PLL-400MH SBL Twin	25	90	0
MFHID-PLL-400MH SBL Twin	25	180	0
MFHID-WPF-400PMH	16.5	270	0
MFHID-WPF-400PMH	16.5	270	0
MFHID-BH-400MH	20	270	65
MEHID-BH-400MH	20	270	65

LIGHTING PLAN BY:



Harris Lighting 4035 Reynolds Blvd. Green Cove Springs, FL 32043 PH: 904-284-1220

UTILITY NOTES

1. PROVIDE 1" BURRIED CONDUIT FROM ELECTRICAL PANEL TO LOCATION OF THE SIGN BASE. A TEMPORARY 3' TALL STAKE SHALL BE PROVIDED AT THE SIGN LOCATION UNTIL THE SIGN IS PERMANENTLY INSTALLED

2. UNDERGROUND ELECTRICAL SHALL BE PROVIDED TO THE SITE LIGHT POLES.

b.o b.o b.o b.o b.o b.o b.o b.1 b.1 b.1 1.9 13.6 3.7 1.4 1.4 1.0 b.4 b.1 b.0 b.0 b.0 b.o $\frac{28.4}{15.1}$ $\frac{15.1}{3.9}$ $\frac{1.9}{1.9}$ $\frac{2.0}{2.4}$ $\frac{2.4}{1.5}$ $\frac{1}{0.5}$ $\frac{1}{0.5}$ $\frac{1}{0.5}$ $\frac{1}{0.5}$ $\frac{1}{0.5}$ $\frac{1}{0.0}$ $\frac{1}{0.0}$ $\frac{1}{0.0}$ $28.3 \ 15.2 \ 4.7 \ 3.0 \ 4.7 \ 5... \ 2.8 \ 5.9 \ 5.2 \ 5.1 \ 5.0 \ 5.0$ $b.o \ b.o \ b.o$ MFHID-WPF-400PMH $\frac{1}{42.5}$ $\frac{1}{14.8}$ $\frac{1}{6.8}$ $\frac{1}{5.2}$ $\frac{1}{6.7}$ $\frac{1}{8.9}$ $\frac{1}{4.8}$ $\frac{1}{1.5}$ $\frac{1}{5.4}$ $\frac{1}{5.3}$ $\frac{1}{5.0}$ $\frac{1}{5.0}$ $\frac{1}{5.0}$ b.o b.o b.o b.o b.o b.o b.o b.o26.8 \$6.7 \$.5 \$10.4 \$.1 \$6.5 \$5.0 \$1.2 \$1.2 \$5.5 \$5.1 \$0.0 \$5.0 MFHID-WPF-400PMH 6.1 16.2 24.2 29.0 24.10 19.8 MFHID-BH-400MH HILL D-WPF-400PMH D-WPF-400PMH 23.5 29.7 25.5 17.2 21.7 12.7 7.9 9.5 12.5 8.0 6.3 3.2 1.1 6.2 6.1 6 0 6.0 b.o b.o b.o b.1 b.1 b.1 b.3 b.7 b.o b.o b.1 b.1 b.2 b.3 b.4 b.7 b.1 b.2 b.5 l.1 l.7 l.3 1.6 3.1 \$.2 \$.6 3.5 \$.0 \$.6 \$.5 \$.8 \$.5 \$.1 \$.2 \$.9 \$.3 \$.5 \$.9 \$.3 \$.2 \$.5 \$.7 \$.3 \$.2 \$.6 \$.9 \$.3 \$.1 \$.2 \$.6 \$.0 \$.0 d /5.1 1.7 5.5 5.3 5.1 5.0 5.0 5.0 5.1 5.2 5.3 5.4 5.6 5.0 5.9 2.4 5.1 5.3 2.8 1.2 1.3 5.8 5.6 5.6 5.6 5.5 5.5 1.3 1.1 5.8 1.0 1.2 5.2 5.2 5.2 5.2 5.2 5.1 5.1 5.0 5.0 5.0 5.0 **1** 1.8 5.9 5.4 5.2 5.1 5.1 5.0 b.o b.1 b.1 b.2 b.2 b.2 b.0 5.1 b.8 b.7 1.0 5.2 b.4 b.3 b.3 b.3 b.2 b.2 b.4 b.6 b.3 b.3 b.4 b.4 b.2 b.1 b.1 b.1 b.1 b.0 b.0 b.0 b.0 5.0 5.0 5.1 5.1 5.1 5.2 5.4 5.3 5.2 5.3 5.5 5.3 5.2 5.2 5.2 5.2 5.2 5.2 5.2 5.2 5.1 5.1 5.1 5.1 5.1 5.1 5.1 5.2 5.0 5.0 5.0 5.0 5.0 5.0

SERVICE Call Before You Dig 1.800.362.2764

ALL UTILITIES AS SHOWN ARE APPROXIMATE LOCATIONS DERIVED FROM ACTUAL MEASUREMENTS AND AVAILABLE RECORDS. THEY SHOULD NOT BE INTERPRETED TO BE EXACT LOCATION NOR SHOULD IT BE ASSUMED THAT THE ARE THE ONLY UTILITIES IN THE AREA. FIELD WORK PERFORMED BY: LANDTECH PROFESSIONAL SURVEYING

4/25/14 Sheet

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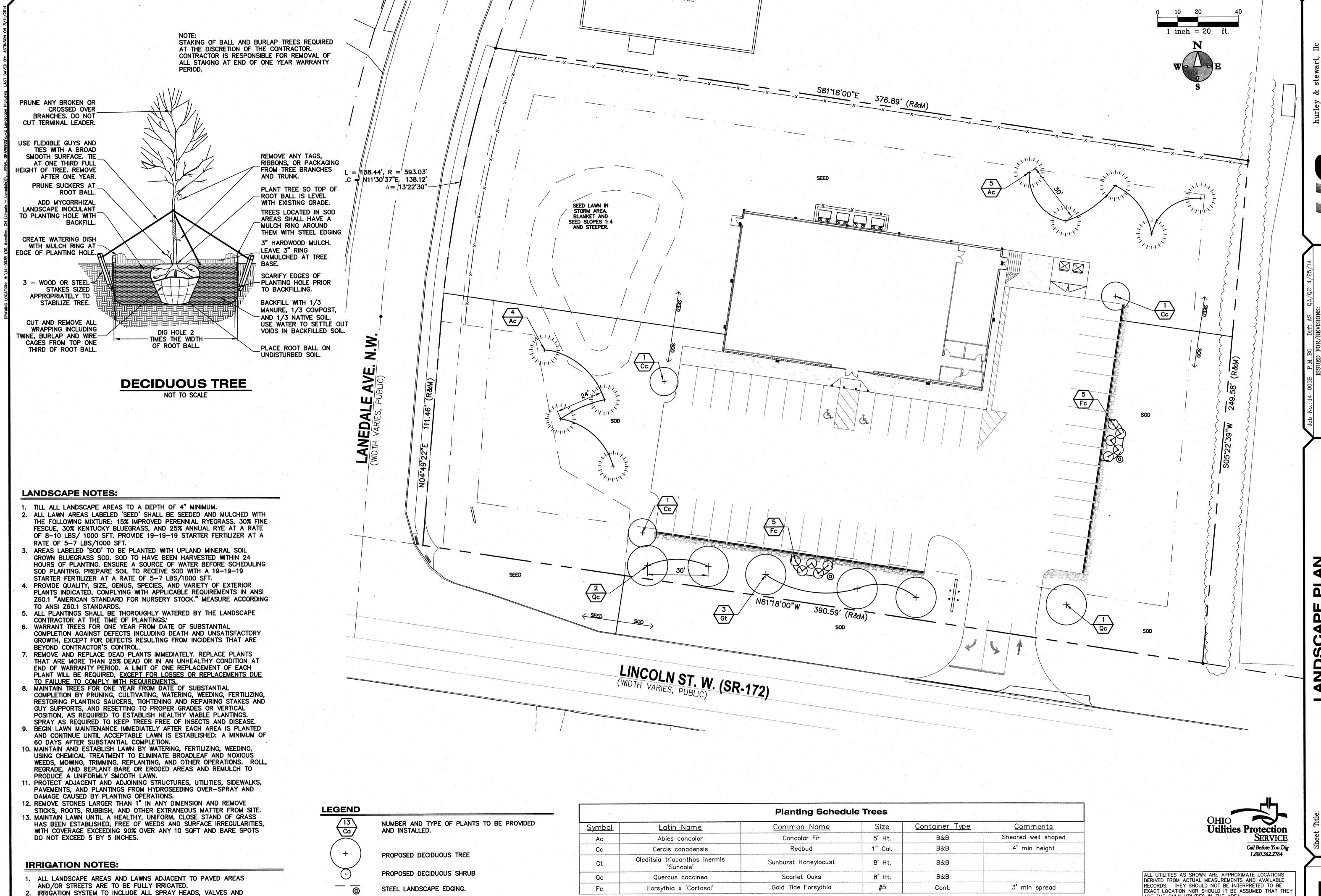
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PLAN

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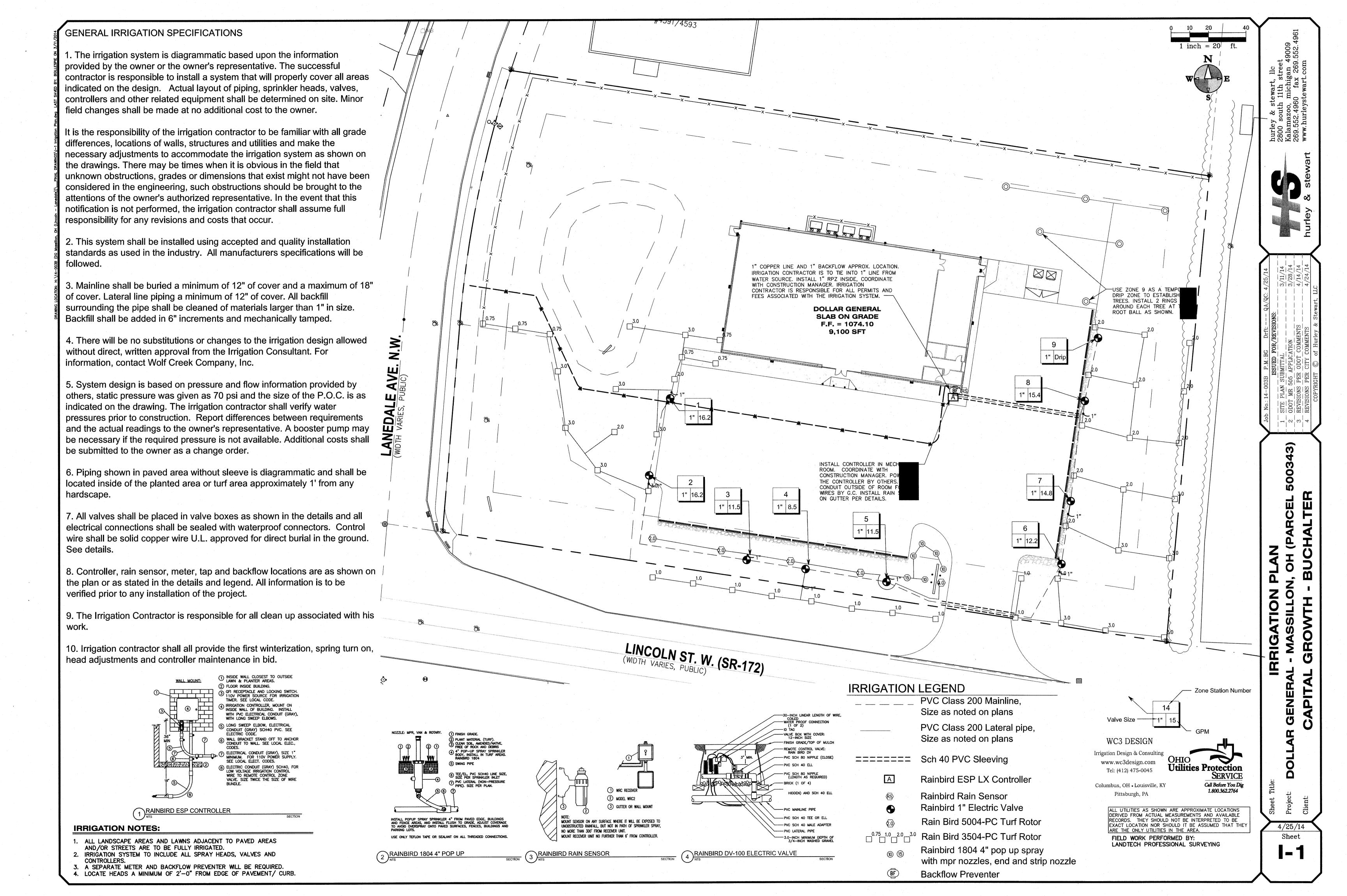
A SEPARATE METER AND BACKFLOW PREVENTER WILL BE REQUIRED.

LOCATE HEADS A MINIMUM OF 2'-0" FROM EDGE OF PAVEMENT/ CURB.

4/25/14 Sheet ARE THE ONLY UTILITIES IN THE AREA.

FIELD WORK PERFORMED BY:

LANDTECH PROFESSIONAL SURVEYING



ALL UTILITIES AS SHOWN ARE APPROXIMATE LOCATIONS DERIVED FROM ACTUAL MEASUREMENTS AND AVAILABLE ARE THE ONLY UTILITIES IN THE AREA. FIELD WORK PERFORMED BY:

RECORDS. THEY SHOULD NOT BE INTERPRETED TO BE EXACT LOCATION NOR SHOULD IT BE ASSUMED THAT THEY

LANDTECH PROFESSIONAL SURVEYING

SITE SOILS:

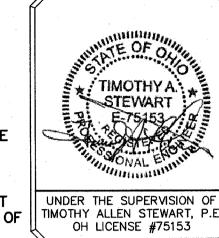
TOTAL SITE AREA: 2.22 ACRES

SITE CLASSIFICATION "D' 1 inch = 20SANDY SILT

USCS CLASSIFICATION: SM AND ML

PROJECT DESCRIPTION

THE PROJECT IS LOCATED ON THE WEST SIDE OF MASSILLON NEAR THE CITY LIMITS, ON THE NORTHEAST CORNER OF LINCOLN STREET W. (SR-172) AND LANEDALE AVENUE NW. THE 1.78 ACRE DEVELOPMENT CONSISTS OF APPROXIMATELY 0.80 ACRES OF IMPERVIOUS AREA. THE CONSTRUCTION SITE AREA TO BE DISTURBED IS 1.37 ACRES. THE SITE WILL CONTAIN A 9,100 SFT BUILDING AND WILL BE CONSTRUCTED AS A ONE-STORY, STEEL FRAMED, SLAB-ON-GRADE. THE BUILDING WILL BE POSITIONED NEAR MIDDLE OF THE SITE WITH PARKING IN THE FRONT (SOUTH) AND TO THE EAST SIDE OF THE SITE. STORMWATER WILL DRAIN INTO A DETENTION BASIN AND EVENTUALLY INTO THE EXISTING STORM SEWER LOCATED ALONG LANEDALE AVENUE NW THROUGH A SERIES OF GRASS SWALES, CATCH BASIN AND STORM PIPES. THE DEVELOPMENT PROCESS INCLUDES UNDERGROUND UTILITIES, PAVING, AND THE CONSTRUCTION OF TIMOTHY ALLEN STEWART, P.E. A BUILDING. STORMWATER BEST MANAGEMENT PRACTICES (BMP'S) WILL BE FOLLOWED FOR THE DURATION OF THE PROJECT. THE SITE LATITUDE AND LONGITUDE ARE APPROXIMATELY 40.798210° N AND -81.596355° W,



GRADING - SESC NOTES

- MATCH EXISTING GRADES AROUND PERIMETER WITH SLOPES AS SHOWN.
- ALL SPOT ELEVATIONS ARE TOP OF PAVEMENT GRADES AT EDGE OF METAL (EOM) UNLESS OTHERWISE
- THE PERMIT AS ISSUED BY STARK COUNTY. SOIL EROSION CONTROL MEASURES SHALL BE IN PLACE PRIOR
- ALL EXCAVATION AND SITE PREPARATION SHALL BE IN ACCORDANCE WITH THE GEOTECHNICAL ENGINEERING REPORT, TERRACON PROJECT NO. N4125110 ISSUED JULY 26, 2012.
- ALL EXISTING ELEVATIONS ARE TO BE VERIFIED AND ACCEPTED AS SHOWN PRIOR TO COMMENCEMENT OF
- CONTRACTOR SHALL TAKE PRECAUTIONS TO AVOID TRACKING SOIL ONTO ADJACENT ROADWAYS. SCRAPE ROAD AT THE END OF EACH WORKDAY AND SWEEP AT LEAST ONCE A WEEK.
- ANY DISTURBED AREA THAT WILL BE LEFT UNWORKED 5 DAYS OR LONGER MUST BE SEEDED AND MULCHED OR SODDED TO ESTABLISH VEGETATION FOR TEMPORARY STABILIZATION. BASINS TO BE SEEDED AND MULCH BLANKETS APPLIED IMMEDIATELY TO PROVIDE A STABLE BASE AND AVOID EXCESSIVE EROSION.
- STRAW MULCH BLANKETS SHALL BE USED ON 3:1 SLOPES OR GREATER. ALL SLOPES ON SITE SHALL BE 4:1 OR LESS. UNLESS OTHERWISE DIRECTED BY ENGINEER.
- ROAD RIGHTS-OF-WAY MUST BE STABILIZED WITH SEED AND MULCH WITHIN 5 DAYS OF COMPLETING UTILITY WORK IN THE RIGHT-OF-WAY.
- AREAS OF EARTH CHANGE THAT ARE DISTURBED BEYOND THE FALL SEEDING DEADLINE (NOV. 1) MUST BE TEMPORARILY STABILIZED WITH A MINIMUM OF STRAW MULCH SECURELY CRIMPED TO THE GROUND.
- 11. ACCUMULATED SEDIMENT TO BE REMOVED FROM STORM SYSTEM UPON COMPLETION OF CONSTRUCTION, ALL TEMPORARY CONTROLS TO BE REMOVED AFTER SITE IS STABILIZED AND VEGETATION ESTABLISHED
- 12. SEE SHEET L-1 FOR PERMANENT AND TEMPORARY SEEDING NOTES.
- 13. SEE SHEET L-1 FOR BEST MANAGEMENT PRACTICES AND CONSTRUCTION SEQUENCE SCHEDULE.
- 14. THE CONTRACTOR SHALL PREVENT AND/OR REDUCE AND CONTROL SOIL EROSION RESULTING FROM THE PROPOSED IMPROVEMENTS. THE USE OF SILT FENCING, JUTE MATTING, TEMPORARY SEEDING, SILT CHECKS. INLET PROTECTION AROUND ALL CATCH BASINS, STABILIZED CONSTRUCTION ENTRANCE(S), ETC. WILL BE REQUIRED. SEDIMENT CONTROL STRUCTURES/DEVICES SHALL BE INSTALLED IN ACCORDANCE WITH THE LATEST EDITION OF THE MANUAL <u>RAINWATER AND LAND DEVELOPMENT — OHIO'S STANDARDS FOR STORM WATER MANAGEMENT. LAND DEVELOPMENT AND URBAN STREAM PROTECTION.</u> SEDIMENT CONTROL DEVICES MUST BE INSTALLED PRIOR TO BEGINNING ANY CONSTRUCTION ACTIVITY. THE CONTRACTOR SHALL BE RESPONSIBLE FOR CONTINUED INSPECTION AND MAINTENANCE OF ALL SEDIMENT CONTROL DEVICES. THE CONTRACTOR SHALL FOLLOW THE REQUIREMENTS SET FORTH ON THE APPROVED STORM WATER POLLUTION PREVENTION PLAN IF APPLICABLE, OR AS DETAILED ON THE CONSTRUCTION PLANS, AS SPECIFIED BY THE CITY OF MASSILLON.
- 15. GRASS SWALES CANNOT BE ELIMINATED AS THEY ARE POST-CONSTRUCTION WATER QUALITY DEVICES FOR THIS SITE.
- 16. AN APPROVED PLAN & PRE-CONSTRUCTION MEETING ARE REQUIRED BEFORE ANY EARTHMOVING IS STARTED. CONTACT THE STARK COUNTY SWCD AT 330-830-7700, EXT. 127 WITH ANY QUESTIONS.

STORM SEWER STRUCTURE SCHEDULE

STR. #	RIM EL.	DIAM.	CASTING	PIPES IN:	PIPES OUT
CB-1	1070.58	4'	5105 M1		12" SW: 1068.15
CB-2	1070.48	4'	5105 M1	12" NE: 1067.56	15" NW: 1067.56
MH-5	1069.81	4'	1040	12" NE: 1066.80 EX 12" N: 1066.80	EX 12" S: 1066.80
0S-3	1068.74	4'	6508		8" W: 1067.05
0S-4	1069.17	4'	6508	8" E: 1067.02	12" SW: 1067.02

*SEE SHEET C-5 FOR OUTLET CONTROL STRUCTURE DETAILS

THE OVERALL SEDIMENT AND EROSION CONTROL SCHEME IS DEVISED TO PREVENT POLLUTED RUNOFF FROM LEAVING THE SITE BOUNDARIES OR ENTERING THE EXISTING STORM SYSTEM DURING CONSTRUCTION. SILT FENCE IS IMPLEMENTED AT ALL CONSTRUCTION PERIMETERS AND THE TOPSOIL STOCK PILE AREA.

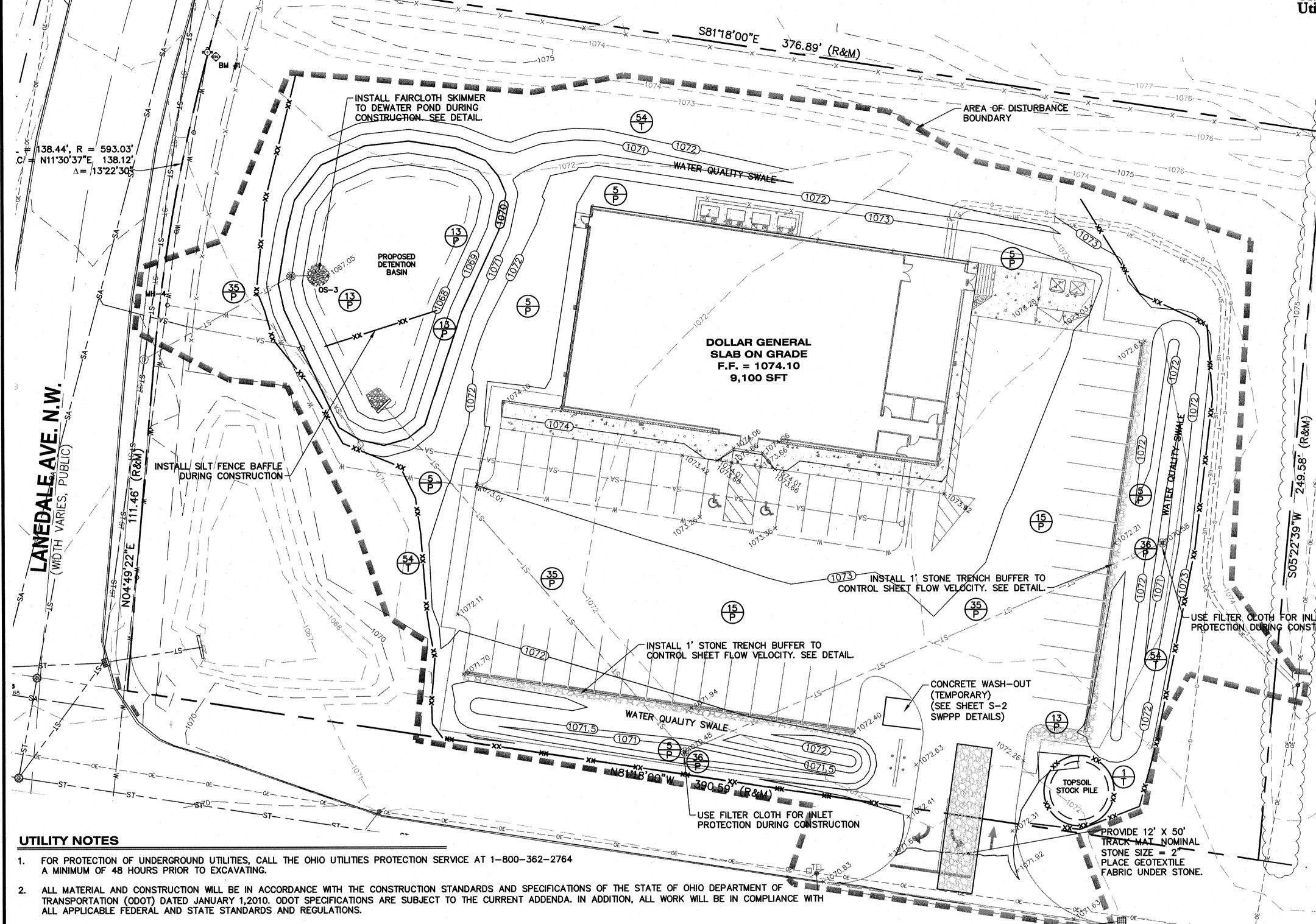
SWPPP NOTES

OWNER-

WATER QUALITY WILL BE ADDRESSED THROUGH THE INSTALLATION OF GRASS WATER QUALITY SWALES.

I, THE UNDERSIGNED, CERTIFY THAT I UNDERSTAND AND WILL ADHERE TO THE REQUIREMENTS, TERMS, AND CONDITIONS OF THE STORM WATER POLLUTION PREVENTION PLAN REVIEWED AND APPROVED BY THE STARK SOIL AND WATER DISTRICT FOR COMPLIANCE WITH THE STARK COUNTY WATER QUALITY REGULATIONS FOR THE ABOVE REFERENCED PROJECT.

DATE



- ALL BEDDING MATERIAL TYPES ARE TO BE PER ODOT SPEC. 603.06.
- ALL BACKFILL MATERIAL TYPES ARE TO BE PER ODOT SPEC. 603.10.
- GRANULAR MATERIAL OR CDF SHALL BE USED FOR BACKFILLING ALL TRENCHES UNDER PAVEMENT AND/OR ANY PORTION OF THE TRENCH THAT IS WITHIN 5 FT. OF THE PAVEMENT EDGE OR CURB. PAVEMENT SHALL INCLUDE BUT IS NOT LIMITED TO; ROADWAYS, SIDEWALKS, SERVICE WALKS, DRIVEWAY APPROACHES, PARKING LOTS OR ANY PROPOSED PAVED SURFACE.
- SOIL EROSION AND SEDIMENTATION BEST MANAGEMENT PRACTICE (BMP) MEASURES WILL BE INSTALLED PRIOR TO START OF ANY CONSTRUCTION AND WILL BE MAINTAINED AT ALL TIMES UNTIL CONSTRUCTION HAS BEEN COMPLETED, INCLUDING ALL GRASS BEING WELL ESTABLISHED AND/OR PERMANENT EROSION AND SEDIMENTATION BMP MEASURES ARE IN PLACE.
- CONTRACTOR IS TO DESIGNATE A SITE DUMP/WASH AREA PRIOR TO STARTING CONSTRUCTION FOR SUCH PURPOSES AS WASHING OUT CONCRETE TRUCKS AND DUMPING NON-HAZARDOUS WASTE MATERIALS. DUMPING OR DISCHARGE OF ANY WASTE MATERIALS TO ANY SEWERS IS PROHIBITED. HAZARDOUS WASTES ARE TO BE REMOVED OFF SITE AND PROPERLY DISPOSED OF CONSISTENT WITH ALL FEDERAL. STATE AND LOCAL REGULATIONS.
- COORDINATE ALL UTILITY LOCATIONS AND ELEVATIONS WITH MECHANICAL DRAWINGS AND BUILDING CONTRACTOR PRIOR TO INSTALLATION.
- REMOVE SEDIMENT FROM ALL STRUCTURES ONCE PAVING IS COMPLETE AND REMOVE SILT SACKS.
- 10. SANITARY SEWER MATERIALS AND INSTALLATION SHALL COMPLY WITH THE OHIO EPA AND STARK COUNTY REQUIREMENTS. COORDINATE WORK AND INSPECTIONS WITH THE OHIO EPA AND STARK
- 11. WATER SUPPLY MATERIALS AND INSTALLATION SHALL COMPLY WITH THE OHIO EPA REQUIREMENTS AND SPECIFICATIONS.
- 12. CONTRACTOR TO COORDINATE PRIVATE UTILITY CONNECTIONS WITH UTILITY COMPANIES.
- 13. PLACE SANITARY CLEANOUT EVERY 100' AND/OR AT BENDS ON ALL 6" SANITARY SEWER LEADS.
- 14. ALL STRUCTURE CASTINGS TO BE EAST JORDAN IRON WORKS OR APPROVED EQUAL. SEE STRUCTURE TABLE FOR SPECIFIC CASTING AT EACH STRUCTURE.
- 15. THE CONTRACTOR SHALL INSTALL PEDESTRIAN FENCE AROUND ALL EXCAVATIONS TO BE LEFT OPEN OVERNIGHT AS REQUIRED.
- 16. CONTRACTOR SHALL REFER TO THE GEOTECHNICAL REPORT FOR GROUNDWATER AND SOILS INFORMATION. ANY UTILITIES REQUIRING DEWATERING SHALL BE INSTALLED TO STARK COUNTY STANDARDS AND INCLUDED IN THE INSTALLATION COSTS. CONTRACTOR IS RESPONSIBLE FOR ALL DEWATERING NECESSARY TO CONSTRUCT UTILITIES IN THE DRY.
- 17. IF ANY ERRORS, DISCREPANCIES, OR OMISSIONS BECOME APPARENT, THESE SHALL BE BROUGHT TO THE ATTENTION OF THE ENGINEER PRIOR TO CONSTRUCTION OF ANYTHING AFFECTED SO THAT CLARIFICATION OR REDESIGN MAY OCCUR.
- ADS FLEXSTORM INLET FILTERS ARE TO BE INSTALLED IN EACH CATCH BASIN WITHIN THE PARKING AREA. COORDINATE FILTER MODEL AND INSTALLATION METHOD WITH MANUFACTURER.



SOIL EROSION AND SEDIMENTATION CONTROL MEASURES

KEY

5

13

15

DETAIL



CHARACTERISTICS

Topsoil may be stockpiled above borrow areas to act as a diversion Stockpile should be temporarily seeded

sco will help alow select

ALL CONSTRUCTION SHALL BE IN ACCORDANCE WITH THE APPROVED SOIL EROSION CONTROL PLAN AND

0

4/25/14 Sheet

GRASSED SWALE DETAIL NO SCALE

GRASSED SWALE: OPERATION & MAINTENANCE

- 1. ALL TREES, BRUSH, STUMPS, AND OTHER UNSUITABLE MATERIAL SHALL BE REMOVED FROM THE SITE.
- 2. THE CHANNEL SHALL BE EXCAVATED AND SHAPED TO THE PROPER GRADE AND CROSS SECTION.
- FILL MATERIAL USED IN THE CONSTRUCTION OF THE CHANNEL SHALL BE WELL COMPACTED IN UNIFORM LAYERS NOT EXCEEDING 9 INCHES USING THE WHEEL TREADS OR TRACKS OF THE CONSTRUCTION EQUIPMENT TO PREVENT UNEQUAL SETTLEMENT.
- 4. EXCESS EARTH SHALL BE GRADED OR DISPOSED OF SO THAT IT WILL NOT RESTRICT FLOW TO THE CHANNEL OR INTERFERE WITH ITS
- 5. STABILIZATION SHALL BE DONE ACCORDING TO THE APPROPRIATE SPECIFICATIONS FOR PERMANENT SEEDING, VEGETATIVE PRACTICES, SODDING AND MATTING.
- 6. CONSTRUCTION SHALL BE SEQUENCED SO THAT NEWLY CONSTRUCTED CHANNELS ARE STABILIZED PRIOR TO BECOMING OPERATIONAL. TO AID IN THE ESTABLISHMENT OF VEGETATION, SURFACE WATER MAY BE PREVENTED FROM ENTERING THE NEWLY CONSTRUCTED CHANNEL THROUGH THE ESTABLISHMENT PERIOD.
- 7. GULLIES THAT MAY FORM IN THE CHANNEL OR OTHER EROSION DAMAGE THAT OCCURS BEFORE THE GRASS LINING BECOMES ESTABLISHED SHALL BE REPAIRED WITHOUT DELAY.

TEMPORARY & PERMANENT SEEDING NOTES:

- 1. ALL LAWN AREAS SHALL BE SEEDED AND MULCHED WITH THE FOLLOWING MIXTURE: 20% IMPROVED PERENNIAL RYEGRASS, 40% FINE FESCUE, AND 40% KENTUCKY BLUEGRASS AT A RATE OF 8-10 LBS/ 1000 SFT. PROVIDE 19-19-19 STARTER FERTILIZER AT A RATE OF 5-7 LBS/1000
- 2. BEGIN LAWN MAINTENANCE IMMEDIATELY AFTER EACH AREA IS PLANTED AND CONTINUE UNTIL ACCEPTABLE LAWN IS ESTABLISHED: A MINIMUM OF 60 DAYS AFTER SUBSTANTIAL COMPLETION.
- 3. MAINTAIN AND ESTABLISH LAWN BY WATERING, FERTILIZING, WEEDING, MOWING, TRIMMING, REPLANTING, AND OTHER OPERATIONS. ROLL, REGRADE, AND REPLANT BARE OR ERODED AREAS AND REMULCH TO PRODUCE A UNIFORMLY SMOOTH LAWN.
- 4. PROTECT ADJACENT AND ADJOINING STRUCTURES, UTILITIES, SIDEWALKS, PAVEMENTS, AND PLANTINGS FROM HYDROSEEDING OVER-SPRAY AND DAMAGE CAUSED BY PLANTING OPERATIONS.
- 5. REMOVE STONES LARGER THAN 1" IN ANY DIMENSION AND REMOVE STICKS, ROOTS, RUBBISH, AND OTHER EXTRANEOUS MATTER FROM SITE.
- 6. MAINTAIN LAWN UNTIL A HEALTHY, UNIFORM, CLOSE STAND OF GRASS HAS BEEN ESTABLISHED, FREE OF WEEDS AND SURFACE IRREGULARITIES, WITH COVERAGE EXCEEDING 90% OVER ANY 10 SQFT AND BARE SPOTS DO NOT EXCEED 5 BY 5 INCHES.
- 7. SEED TOPSOIL STORAGE LOCATION AND ANY SOIL AREAS EXPOSED MORE THAN TWO WEEKS WITH AN ANNUAL GRASS MIX TO PREVENT SOIL

SESC Construction and Maintenance Schedule

Construction Sequence	Jan	Feb	March	April	May	June	July	Aua	Sept	Oct	Nov	Dec
Temporary SESC Measures						Х	Х					
Strip and Stock Pile						Х						
Permanent Grass Swales		***************************************		***************************************		Х	Х	Х	X-	Х		,,
Rough Grading						Х	X					
Underground Utilities						. X	. X					
Pavement Installation								X	X	Х		
Building Construction							Х	· X	Х	Х		
Permanent SESC Measures						Х	Х	X.	Х	Х		
Final Grading								Х.,	Х	Х		,
Landscaping								X	X	Х		

Maintenance Sequence	Jan	Feb	March	April	May	June	July	Aug	Sept	Oct	Nov	Dec
Street Sweeping						X	Χ	X	Х	Х		
Silt Fence Installation						Х	Х	·X	Х	Χ.		
Maintain Buffer Strips						Х	Х	. X	Х	Х		
Seeding and Mulch								X	Х	- X		
Sediment Basins				,				Х	Х	Х		
Rip Rap								Х	Х	Х		
Remove Temporary SESC Measures										***************************************		

ject	Name:	Massillon Dollar General	
ject	Start D	ate: June 2014	
ject	End Da	ite: October 2014	

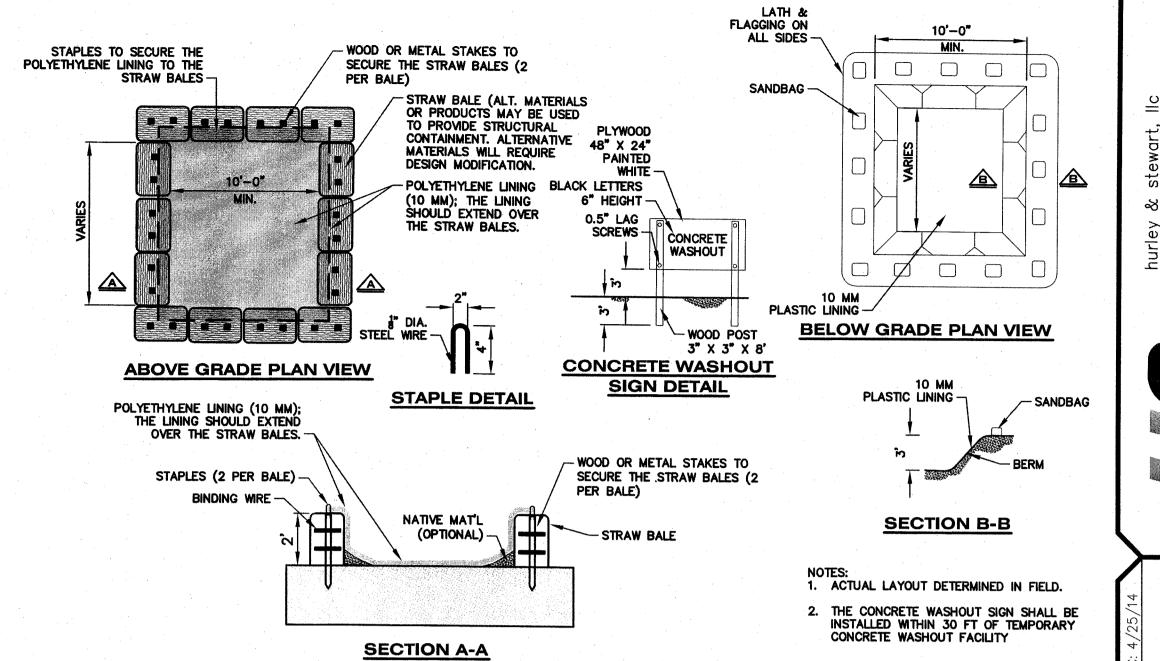
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Construction Sequence	Jan	Feb	March	April	May	June	July	Aug	Sept	Oct	Nov	Dec
Temporary SESC Measures						Х	Χ					
Strip and Stock Pile						Χ						
Permanent Grass Swales						Х	Х	X	Χ·	Х	,	
Rough Grading						Х	Х				,	
Underground Utilities						. X	X					
Pavement Installation					·			Х	Х	Х		
Building Construction							Х	X	X	Х		
Permanent SESC Measures						Х	Χ	X.	Х	Х		
Final Grading			·			·		Х.,	Х	Х		
_andscaping								Х	X	Х		

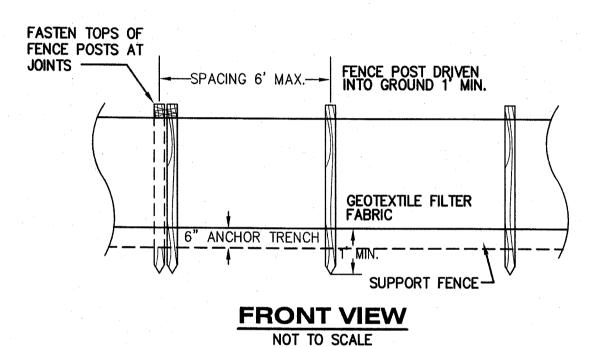
Maintenance Schedule

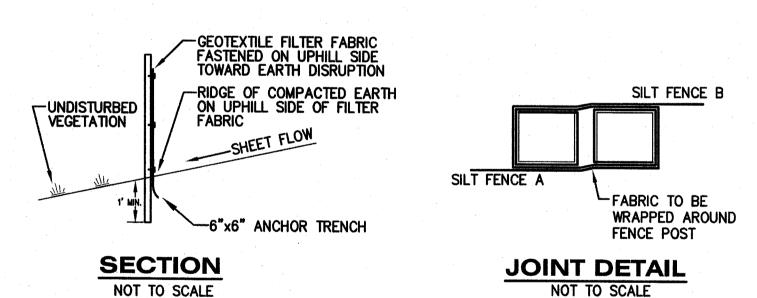
Maintenance Sequence	Jan	Feb	March	April	May	June	July	Aug	Sept	Oct	Nov	Dec
Street Sweeping		,				. X	Х	·X	Х	Х		
Silt Fence Installation						Х	Х	X	Х	Χ.		
Maintain Buffer Strips						Х	Х	. X	Х	Х		
Seeding and Mulch								X	Х	- X		
Sediment Basins				,				Х	Х	Х		
Rip Rap				7. '				Х	Х	Х		
Remove Temporary SESC Measures												

AS-CONSTRUCTED STORAGE VOLUME PROVIDED (CFT)

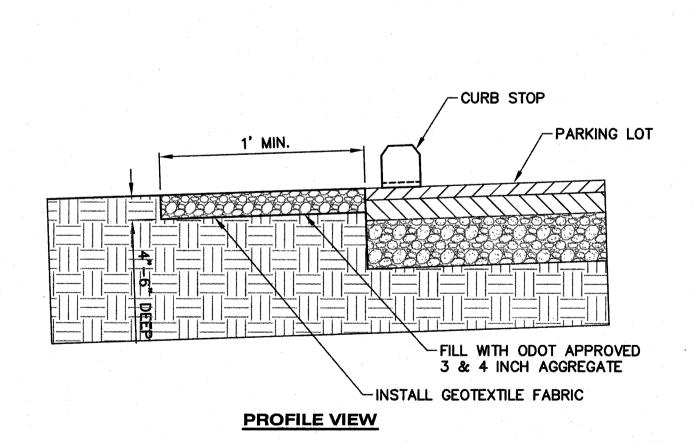


CONCRETE WASH-OUT NOT TO SCALE





SILT FENCE DETAILS NOT TO SCALE



GRAVEL VERGE DETAIL

NOT TO SCALE

GRAVEL VERGE

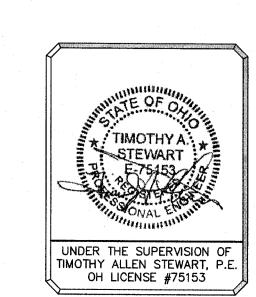
-FLOW DIRECTION (TYP.)

CURB STOP (TYP.)

P	L	4	N	1	V	1	E	V	<u>V</u>		

WATER STORM DESIGN FREQUENCY (YEARS) 25 50 100 QUALITY CONSTRUCTION PRE-DEVELOPED PEAK FLOW (CFS) N/A 1.56 1.72 3.30 4.07 5.85 4.85 6.25 POST-DEVELOPED UNCONTROLLED PEAK FLOW (CFS) N/A 2.89 5.06 5.95 3.10 7.98 8.43 5.95 6.85 POST-DEVELOPED PEAK FLOW FROM BASIN (CFS) 1.12 1.18 1.67 1.84 1.84 2.18 2.25 2.00 DESIGN PEAK WATER ELEVATION (FT) 1067.82 1067.88 1068.37 1068.59 1068.59 1068.80 1069.07 | 1069.17 DESIGN STORAGE VOLUME REQUIRED (CF) 2301 2476 4223 5074 7102 5074 5953 7574 AS-CONSTRUCTED PEAK FLOW FROM BASIN (CFS) AS-CONSTRUCTED PEAK WATER ELEVATION (FT)

SUMMARY OF DETENTION BASIN DRAINAGE CALCULATIONS



4/25/14 Sheet

МРРР

SEDIMENT BASIN (DURING CONSTRUCTION)

SEE SLOW RELEASE OVERFLOW DETAIL FOR STONE PLACEMENT DETAILS AFTER CONSTRUCTION-8" OUTLET TO OS-4

STORM WATER BASIN (POST-CONSTRUCTION)

SEDIMENT BASIN: SPECIFICATIONS

- 1. SEDIMENT BASINS SHALL BE CONSTRUCTED AND OPERATIONAL BEFORE UPSLOPE LAND DISTURBANCE BEGINS.
- 2. SITE PREPARATION —THE AREA UNDER THE EMBANKMENT SHALL BE CLEARED, GRUBBED, AND STRIPPED OF ANY VEGETATION AND ROOT MAT. THE POOL AREA SHALL BE CLEARED AS NEEDED TO FACILITATE SEDIMENT CLEANOUT. GULLIES AND SHARP BREAKS SHALL BE SLOPED TO NO STEEPER THAN 1:1. THE SURFACE OF THE FOUNDATION AREA WILL BE THOROUGHLY SCARIFIED BEFORE PLACE- MENT OF THE EMBANKMENT MATERIAL.
- 3. CUT-OFF TRENCH -THE CUTOFF TRENCH SHALL BE EXCAVATED ALONG THE CENTERLINE OF THE EMBANKMENT. THE MINIMUM DEPTH SHALL BE 3 FT. UNLESS SPECIFIED DEEPER ON THE PLANS OR AS A RESULT OF SITE CONDITIONS. THE MINIMUM BOTTOM WIDTH SHALL BE 4 FT., BUT WIDE ENOUGH TO PERMIT OPERATION OF COMPACTION EQUIPMENT. THE TRENCH SHALL BE KEPT FREE OF STANDING WATER DURING BACKFILL OPERATIONS.
- EMBANKMENT -THE FILL MATERIAL SHALL BE FREE OF ALL SOD, ROOTS, FROZEN SOIL, STONES OVER 6 IN. IN DIAMETER, AND OTHER OBJECTIONABLE MATERIAL. THE PLACING AND SPREADING OF THE FILL MATERIAL SHALL BE STARTED AT THE LOWEST POINT OF THE FOUNDATION AND THE FILL SHALL BE BROUGHT UP IN APPROXI- MATELY 6 IN. HORIZONTAL LAYERS OR OF SUCH THICKNESS THAT THE REQUIRED COMPACTION CAN BE OBTAINED WITH THE EQUIPMENT USED. CONSTRUCTION EQUIPMENT SHALL BE OPERATED OVER EACH LAYER IN A WAY THAT WILL RESULT IN THE REQUIRED COMPAC-TION. SPECIAL EQUIPMENT SHALL BE USED WHEN THE REQUIRED COMPACTION CANNOT BE OBTAINED WITHOUT IT. THE MOISTURE CONTENT OF FILL MATERIAL SHALL BE SUCH THAT THE REQUIRED DEGREE OF COMPACTION CAN BE OBTAINED WITH THE EQUIPMENT USED.
- 5. PIPE SPILLWAY-THE PIPE CONDUIT BARREL SHALL BE PLACED ON A FIRM FOUNDATION TO THE LINES AND GRADES SHOWN ON THE PLANS. CONNECTIONS BETWEEN THE RISER AND BARREL, THE ANTI- SEEP COLLARS AND BARREL AND ALL PIPE JOINTS SHALL BE WATER- TIGHT. SELECTED BACKFILL MATERIAL SHALL BE PLACED AROUND THE CONDUIT IN LAYERS AND EACH LAYER SHALL BE COMPACTED TO AT LEAST THE SAME DENSITY AS THE ADJACENT EMBANKMENT. ALL COMPACTION WITHIN 2 FT. OF THE PIPE SPILLWAY WILL BE ACCOMPLISHED WITH HAND-OPERATED TAMPING
- 6. RISER PIPE BASE -THE RISER PIPE SHALL BE SET A MINIMUM OF 6 IN. IN THE CONCRETE BASE.
- 7. TRASH RACKS -THE TOP OF THE RISER SHALL BE FITTED WITH TRASH RACKS FIRMLY FASTENED TO THE RISER PIPE.
- 8. EMERGENCY SPILLWAY THE EMERGENCY SPILLWAY SHALL BE CUT IN UNDISTURBED GROUND. ACCURATE CONSTRUCTION OF THE SPILLWAY ELEVATION AND WIDTH IS CRITICAL AND SHALL BE WITHIN A TOLERANCE OF 0.2 FT.
- 9. SEED AND MULCH -THE SEDIMENT BASIN SHALL BE STABILIZED IMMEDIATELY FOLLOWING ITS CONSTRUCTION. IN NO CASE SHALL THE EMBANKMENT OR EMERGENCY SPILLWAY REMAIN BARE FOR MORE THAN 7 DAYS.
- 10. SEDIMENT CLEANOUT -SEDIMENT SHALL BE REMOVED AND THE SEDIMENT BASIN RESTORED TO ITS ORIGINAL DIMENSIONS WHEN THE SEDIMENT HAS FILLED ONE-HALF THE POND'S ORIGINAL DEPTH OR AS INDICATED ON THE PLANS. SEDIMENT REMOVED FROM THE BASIN SHALL BE PLACED SO THAT IT
- 11. FINAL REMOVAL SEDIMENT BASINS SHALL BE REMOVED AFTER THE UPSTREAM DRAINAGE AREA IS STABILIZED OR AS INDICATED IN THE PLANS. DEWATERING AND REMOVAL SHALL NOT CAUSE SEDIMENT TO BE DISCHARGED. THE SEDIMENT BASIN SITE AND SEDIMENT REMOVED FROM THE BASIN SHALL BE STABILIZED.

SEDIMENT BASIN: OPERATION & MAINTENANCE

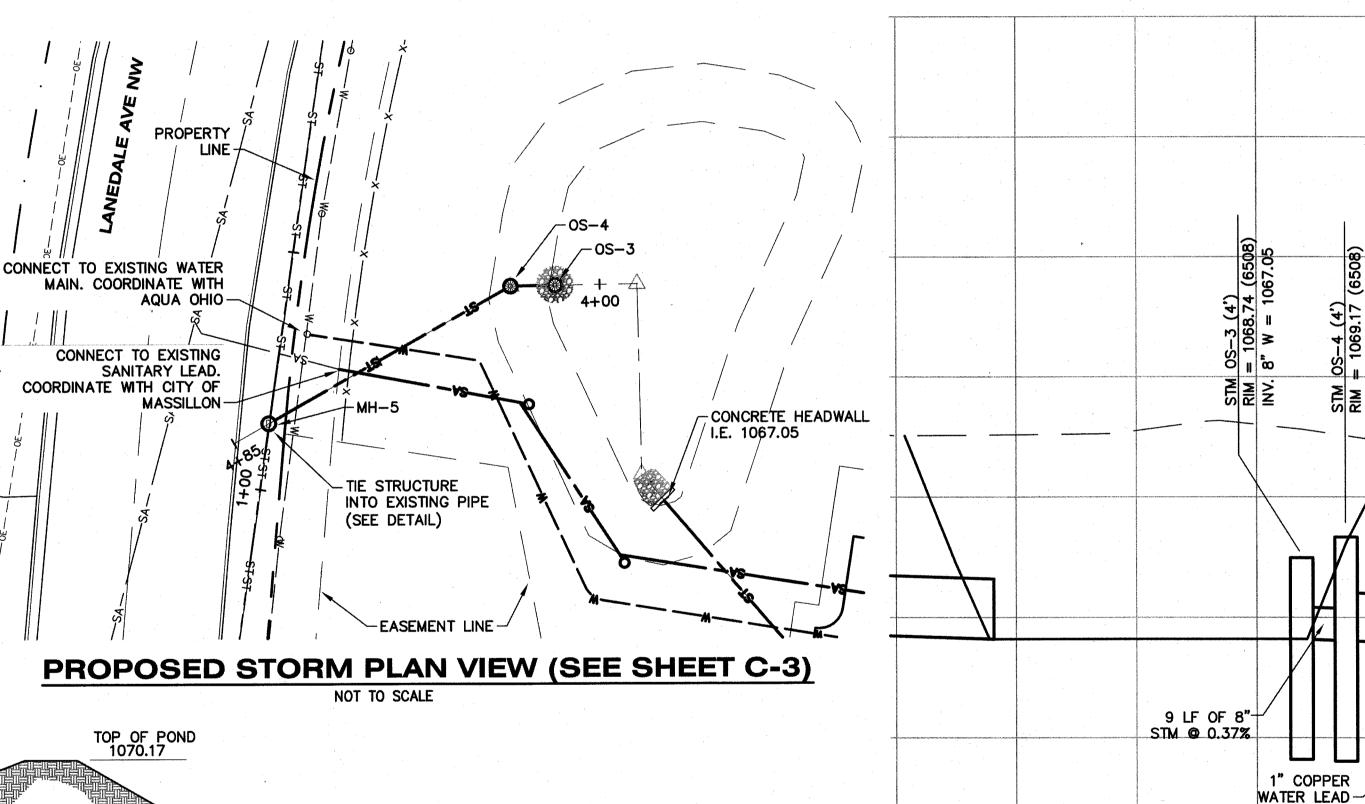
- 1. ESTABLISH VEGETATIVE COVER AND FERTILIZE AS NECESSARY TO MAINTAIN A VIGOROUS COVER IN AND AROUND THE SEDIMENT BASIN.
- 2. REMOVE UNDESIRABLE VEGETATION PERIODICALLY TO PREVENT GROWTH OF TREES AND SHRUBS ON THE EMBANKMENT AND SPILLWAY AREAS.
- PROMPTLY REPAIR ERODED AREAS. REESTABLISH VEGETATIVE COVER IMMEDIATELY WHERE SCOUR EROSION HAS REMOVED ESTABLISHED
- 4. PROMPTLY REMOVE ANY BURROWING RODENTS THAT MAY INVADE AREAS OF THE EMBANKMENT.
- 5. REMOVE TRASH AND DEBRIS THAT MAY BLOCK SPILLWAYS AND ACCUMULATE IN THE POND.
- 6. REMOVE SEDIMENT BASIN WHEN IT FILLS THE DESIGN DEPTH OF THE SEDIMENT STORAGE ZONE. THIS ELEVATION SHALL BE MARKED ON A CLEANOUT STAKE NEAR THE CENTER OF THE BASIN.
- 7. CHECK SPILLWAY OUTLETS AND POINTS OF INFLOW TO ENSURE DRAINAGE IS NOT CAUSING EROSION AND THAT OUTLETS ARE NOT CLOGGED. REPLACE DISPLACED RIPRAP IMMEDIATELY.

58 LF OF 12"-STM @ 0.37%

8. AFTER THE ENTIRE CONSTRUCTION PROJECT IS COMPLETED, TEMPORARY SEDIMENT BASINS SHOULD BE DEWATERED AND REGRADED TO CONFORM TO THE CONTOURS OF THE AREA. ALL TEMPORARY STRUCTURES SHOULD BE REMOVED AND THE AREA SEEDED, MULCHED AND STABILIZED AS NECESSARY.

1080

1060



TOP ELEV. = 100 YR HWL = 1069.17 - SEE UTILITY SHEET FOR CASTING CHOKE 3" WASHED STONE WITH ODOT NO. 57S WASHED STONE, MINIMUM THICKNESS 6", BACKFILLED AT 1: 3.5 SLOPE TOP ELEV. = 10 YR HWL = 1068.59 SEE UTILITY SHEET FOR CASTING (TYP. SURROUNDING ENTIRE RISER) BACKFILL WITH 3" WASHED STONE, MINIMUM THICKNESS OF 4", BACKFILLED AT 1:2.5 SLOPE (TYP. SURROUNDING ENTIRE RISER) -12" HDPE STM OUTLET TO STM MH-5 INSTALL 9 FT OF 8" HDPE STM PIPE AT 0.4% SLOPE -24" PERF. PIPE (ADS N-12) 4' (MIN.) EMBEDDED AT LEAST 2.5' BELOW BOTTOM OF BASIN. POUR CONCRETE COLLAR AROUND BASE OF PIPE, MINIMUM 1' DIA' OPENING IN COLLAR

SLOW RELEASE OVERFLOW DETAIL PERMANENT STRUCTURE

NO SCALE

TIMOTHY A: * STEWART 3+50 4+00 UNDER THE SUPERVISION OF TIMOTHY ALLEN STEWART, P.I

PROPOSED STORM PROFILE VIEW (SEE SHEET C-3) NOT TO SCALE

1" COPPER

FIELD VERIFY LOCATION AND

ELEVATION OF SANITARY LEAD-

EXISTING WATER MAIN-

OH LICENSE #75153

4/25/14 Sheet