

1027.00

Prop.

SWM BASIN TYP. EMBANKMENT SECTION

TOP WIDTH

L=1027.00

FI FV=1026.00

**OUTLET PROFILE** 

**OUTLET SECTION** 

SWM BASIN - EMERGENCY SPILLWAY

SCALE: NONE

TOP ELEV=1027.00

**EXISTING GROUND** 

SCALE: NONE

Splliway = 1026.00

Impervious Cut-Off Trench

SEEDING AND EROSION CONTROL

WITH TURF REINFORCEMENT MAT,
TYPE 3 PER ODOT'S CMS SS 836

SEEDING AND EROSION CONTROL

WITH TURF REINFORCEMENT MAT

TYPE 3 PER ODOT'S CMS SS 836

excavated into existing

4" CAP

SOLID

4" PVC GEOMETRIC LAYOUT

SCALE: NONE

CONTROL STRUCTURE

4" PVC PER ODOT ITEM

707.41, R=0.50%

Encase the 4" perf.

No. 2 aggregate.

conduit w/8" (min.) of

4" Perf. PVC Per ODOT

(See Geometric Layout,

SECTION THROUGH UNDERDRAIN
SCALE: NONE

Item 707.41, R=0.50%

(SEE DETAIL, THIS SHT.)

-- 4" CAP

LEDGE

-4" DOUBLE WYE

- 4" 45' BEND

# **GENERAL NOTES:**

- 1.) THE CONTRACTOR'S BID PRICE FOR THE CONTROL STRUCTURE SHALL INCLUDE THE FOLLOWING: ODOT 2-3 CATCH BASIN (MOD. PER PLAN), TRASH RACKS, 4" PVC CONDUIT AND FITTINGS REPRESENTED HEREON AND THE No. 24 AGGREGATE THAT ENCASES THE 4" PVC.
- 2.) THE SWM BASIN'S EMBANKMENT MUST BE CONSTRUCTED ON EXISTING, COMPACTIBLE SOIL. ANY ORGANIC OR NONCOMPACTIBLE SOIL SHALL BE REMOVED PRIOR TO CONSTRUCTING THE EMBANKMENT. SEE THILS SHEET FOR ADDITIONAL NOTES AND SPECIFICATIONS.
- 3.) THE SWM BASIN SHOWN SHALL BE MODIFIED FOR SEDIMENT TRAPPING CAPABILITIES AND BE OPERATIONAL BEFORE UPSLOPE LAND DISTURBANCE BEGINS. SEE EROSION CONTROL PLANS FOR DETAILS AND DESCRIPTIONS ON HOW TO MODIFY THE OUTLET STRUCTURE FOR SEDIMENT TRAPPING CAPABILITIES. ONCE APPROVAL FROM STARK COUNTY SOIL AND WATER CONSERVATION DISTRICT TO REMOVE THE SEDIMENT BASIN IS ACQUIRED, THE OUTLET STRUCTURE SHALL THEN BE MODIFIED TO MATCH THE DETAILS ON THIS PLAN.
- 4.) SEEDING AND EROSION CONTROL WITH A 5'x14' TURF REINFORCEMENT MAT, TYPE 3 PER ODOT'S CONSTRUCTION AND MATERIAL SUPPLEMENTAL SPECIFICATION 836.

### WATER QUALITY SUMMARY:

SEDIMENT STORAGE PROV. = 5,008 CF

(INCLUDES FOREBAY AND MICROPOOL)

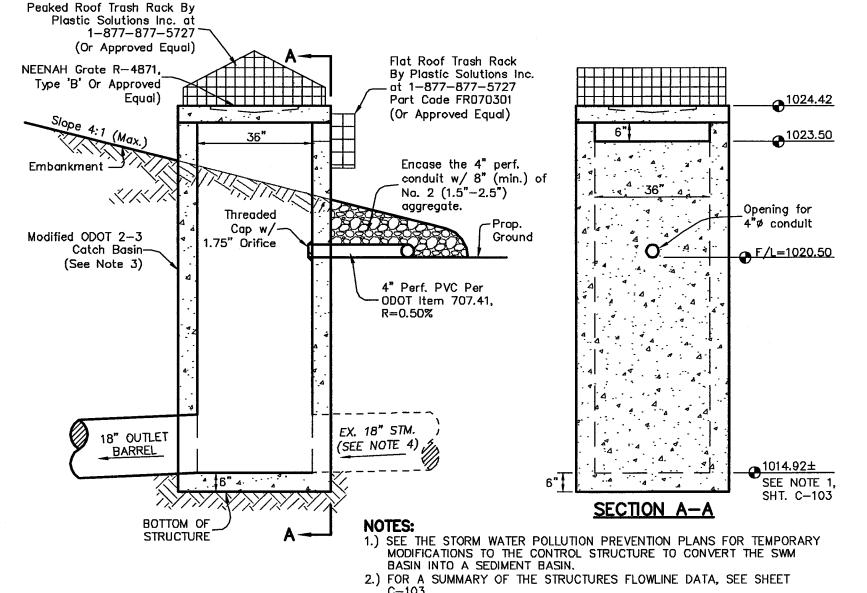
PRACTICES BEING UTILIZED =

48 HR. EXT. DETENTION W/ FOREBAYS AND MICROPOOL

WATER QUALITY VOLUME REQ. = 15,008 CF

WATER QUALITY VOLUME PROV. = 15,135 CF

SEDIMENT STORAGE REQ. = 3,002 CF



# CONTROL STRUCTURE DETAIL - "DO" SCALE: NONE

3.) THIS STRUCTURE SHALL BE EQUIPPED WITH STEPS AND MEET THE

4.) WHEN CONSTRUCTING THE MICROPOOL, THE EXISTING 18" STORM SEWER WILL BE EXPOSED. REMOVE THE 18" STORM SEWER THAT IS IN CONFLICT

IS BEING ABANDONED AND PLUG OR SEAL THE 18" OPENING IN THE

CONTROL STRUCTURE. PERFORM PLUGGING BY USING ODOT APPROVED

WITH THE MICROPOOL, PLUG OR SEAL THE END OF THE 18" STORM THAT

PRECAST STOPPERS. PERFORM SEALING BY USING MASONRY BULKHEADS.

REQUIREMENTS OF ODOT'S SCD MH-1.1.

### STORM WATER MANAGEMENT BASIN NOTES:

#### SITE PREPARATION

AREAS DESIGNATED FOR BORROW AREAS, EMBANKMENT AND STRUCTURAL WORKS SHALL BE CLEARED, GRUBBED AND STRIPPED OF TOPSOIL. ALL TREES, VEGETATION, ROOTS AND OTHER OBJECTIONABLE MATERIAL SHALL BE REMOVED. CHANNEL BANKS AND SHARP BREAKS SHALL BE SLOPED NO STEEPER THAN 2:1. ALL TREES SHALL BE CLEARED AND GRUBBED TO WITHIN 15 FEET OF THE TOE OF THE EMBANKMENT.

AREAS TO BE COVERED BY THE STORM WATER MANAGEMENT BASIN WILL BE CLEARED OF ALL TREES, BRUSH, LOGS, FENCES, RUBBISH AND OTHER OBJECTIONABLE MATERIAL UNLESS OTHERWISE SPECIFIED ON THE PLANS. TREES, BRUSH, AND STUMPS SHALL BE CUT APPROXIMATELY LEVEL WITH THE GROUND SURFACE. FOR DRY STORM WATER MANAGEMENT PONDS, A MINIMUM OF A 25 FOOT RADIUS AROUND THE OUTLET STRUCTURE SHALL BE CLEARED.

ALL CLEARED AND GRUBBED MATERIAL SHALL BE DISPOSED OF OUTSIDE AND BELOW THE LIMITS OF THE BASIN AS DIRECTED BY THE OWNER OR HIS REPRESENTATIVE. WHEN SPECIFIED, A SUFFICIENT QUANTITY OF TOPSOIL WILL BE STOCKPILED IN A SUITABLE LOCATION FOR USE ON THE EMBANKMENT AND OTHER DESIGNATED AREAS.

#### EARTH FILL

MATERIAL — THE FILL MATERIAL SHALL BE TAKEN FROM APPROVED DESIGNATED BORROW AREAS. IT SHALL BE FREE OF ROOTS, STUMPS, WOOD, RUBBISH, STONES GREATER THAN 6", FROZEN OR OTHER OBJECTIONABLE MATERIALS. FILL MATERIAL FOR THE CENTER OF THE EMBANKMENT AND CUT—OFF TRENCH SHALL CONFORM TO UNITED SOIL CLASSIFICATION GC, SC, CH OR CL AND MUST HAVE AT LEAST 30% PASSING THE #200 SIEVE. CONSIDERATION MAY BE GIVEN TO THE USE OF OTHER MATERIALS IN THE EMBANKMENT IF DESIGNED BY A GEOTECHNICAL ENGINEER. SUCH SPECIAL DESIGNS MUST HAVE CONSTRUCTION SUPERVISED BY A GEOTECHNICAL ENGINEER.

PLACEMENT - AREAS ON WHICH FILL IS TO BE PLACED SHALL BE SCARIFIED PRIOR TO PLACEMENT OF FILL. FILL MATERIALS SHALL BE PLACED IN MAXIMUM 8 INCH THICK (BEFORE COMPACTION) LAYERS WHICH ARE TO BE CONTINUOUS OVER THE ENTIRE LENGTH OF THE FILL. THE MOST PERMEABLE BORROW MATERIAL SHALL BE PLACED IN THE DOWNSTREAM PORTIONS OF THE EMBANKMENT. THE PRINCIPLE SPILLWAY MUST BE INSTALLED CONCURRENTLY WITH FILL PLACEMENT AND NOT EXCAVATED INTO THE EMBANKMENT. THE EMBANKMENT FILL SHALL NOT BE PLACED HIGHER THAN THE CENTERLINE OF THE PRINCIPLE SPILLWAY UNTIL AFTER THE PRINCIPLE SPILLWAY HAS BEEN INSTALLED.

COMPACTION — THE MINIMUM REQUIRED DENSITY SHALL NOT BE LESS THAN 95% OF THE MAXIMUM DRY DENSITY WITH A MOISTURE CONTENT WITHIN 2% OF THE OPTIMUM. EACH LAYER OF FILL SHALL BE COMPACTED AS NECESSARY TO OBTAIN THAT DENSITY. ALL COMPACTION IS TO BE DETERMINED BY AASHTO METHOD T-99 (STANDARD PROCTOR).

CUT OFF TRENCH - THE CUT OFF TRENCH SHALL BE EXCAVATED INTO THE IMPERVIOUS MATERIAL ALONG OR PARALLEL TO THE CENTERLINE OF THE EMBANKMENT AS SHOWN ON THE PLANS. THE BOTTOM WIDTH OF THE TRENCH SHALL BE GOVERNED BY THE EQUIPMENT USED FOR EXCAVATION, WITH THE MINIMUM WIDTH BEING FOUR FEET. THE DEPTH SHALL BE AT LEAST FOUR FEET BELOW EXISTING GRADE OR AS SHOWN ON THE PLANS. THE SIDE SLOPES OF THE TRENCH SHALL BE 1 TO 1 OR FLATTER. THE BACKFILL SHALL BE COMPACTED WITH CONSTRUCTION EQUIPMENT, ROLLERS, OR HAND TAMPERS TO ASSURE MAXIMUM DENSITY AND MINIMUM PERMEABILITY.

EMBANKMENT CORE — THE CORE SHALL BE PARALLEL TO THE CENTERLINE OF THE EMBANKMENT AS SHOWN ON THE PLANS. THE TOP WIDTH OF THE CORE SHALL BE A MINIMUM OF FOUR FEET. THE HEIGHT SHALL EXTEND UP TO AT LEAST THE 10 YEAR WATER ELEVATION OR AS SHOWN ON THE PLANS. THE SIDE SLOPES SHALL BE 1 TO 1 OR FLATTER. THE CORE SHALL BE COMPACTED WITH CONSTRUCTION EQUIPMENT, ROLLERS, OR HAND TAMPERS TO ASSURE MAXIMUM DENSITY AND MINIMUM PERMEABILITY. IN ADDITION, THE CORE SHALL BE PLACED CONCURRENTLY WITH THE OUTER SHELL OF THE EMBANKMENT.

STRUCTURE BACKFILL — BACKFILL ADJACENT TO PIPES OR STRUCTURES SHALL BE OF THE TYPE AND QUALITY CONFORMING TO THAT SPECIFIED FOR THE ADJOINING FILL MATERIAL. THE FILL SHALL BE PLACED IN HORIZONTAL LAYERS NOT TO EXCEED FOUR INCHES IN THICKNESS AND COMPACTED BY HAND TAMPERS OR OTHER MANUALLY DIRECTED COMPACTION EQUIPMENT. THE MATERIAL NEEDS TO FILL COMPLETELY ALL SPACES UNDER AND ADJACENT TO THE PIPE. AT NO TIME DURING THE BACKFILLING OPERATION SHALL DRIVEN EQUIPMENT BE ALLOWED TO OPERATE CLOSER THAN FOUR FEET, MEASURED HORIZONTALLY, TO ANY PART OF A STRUCTURE. UNDER NO CIRCUMSTANCES SHALL EQUIPMENT BE DRIVEN OVER ANY PART OF A STRUCTURE OR PIPE, UNLESS THERE IS A COMPACTED FILL OF 24" OR GREATER OVER THE STRUCTURE OR PIPE.

TOPSOIL — A 4-INCH LAYER OF TOPSOIL SHALL BE PLACED ON ALL DISTURBED AREAS OF THE EMBANKMENT. SEEDING, LIMING, FERTILIZING, MULCHING, ETC. SHALL BE IN ACCORDANCE WITH ODOT ITEM 659.

#### CARE OF WATER DURING CONSTRUCTION

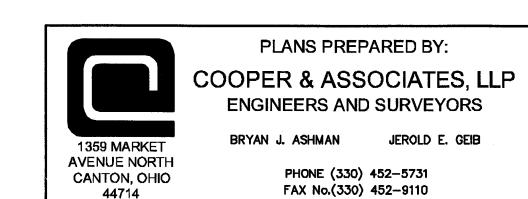
ALL WORK ON PERMANENT STRUCTURES SHALL BE CARRIED OUT IN AREAS FREE FROM WATER. THE CONTRACTOR SHALL CONSTRUCT AND MAINTAIN ALL TEMPORARY DIKES, LEVEES, COFFERDAMS, DRAINAGE CHANNELS, AND STREAM DIVERSIONS NECESSARY TO PROTECT THE AREAS TO BE OCCUPIED BY THE PERMANENT WORKS. THE CONTRACTOR SHALL ALSO FURNISH, INSTALL, OPERATE, AND MAINTAIN ALL NECESSARY PUMPING AND OTHER EQUIPMENT REQUIRED FOR REMOVAL OF WATER FROM VARIOUS PARTS OF THE WORK AND FOR MAINTAINING EXCAVATIONS, FOUNDATION AND OTHER PARTS OF THE WORK FREE FROM WATER AS REQUIRED OR DIRECTED BY THE ENGINEER FOR CONSTRUCTING EACH PART OF THE WORK. AFTER HAVING SERVED THEIR PURPOSE, ALL TEMPORARY PROTECTIVE WORKS SHALL BE REMOVED OR LEVELED AND GRADED TO THE EXTENT REQUIRED TO PREVENT OBSTRUCTION IN ANY DEGREE WHATSOEVER OF THE FLOW OF WATER TO THE SPILLWAY OR OUTLET WORKS AND SO AS NOT TO INTERFERE IN ANY WAY WITH THE OPERATION OR MAINTENANCE OF THE STRUCTURE. STREAM DIVERSIONS SHALL BE MAINTAINED UNTIL THE FULL FLOW CAN BE PASSED THROUGH THE PERMANENT WORKS. THE REMOVAL OF WATER FROM THE REQUIRED EXCAVATION AND THE FOUNDATION SHALL BE ACCOMPLISHED IN A MANNER AND TO THE EXTENT THAT WILL MAINTAIN STABILITY OF THE EXCAVATED SLOPES AND BOTTOM REQUIRED EXCAVATIONS AND WILL ALLOW SATISFACTORY PERFORMANCE OF ALL CONSTRUCTION OPERATIONS. DURING THE PLACING AND COMPACTING OF MATERIAL IN REQUIRED EXCAVATIONS, THE WATER LEVEL AT THE LOCATIONS BEING REFILLED SHALL BE MAINTAINED BELOW THE BOTTOM OF THE EXCAVATION.

# **STABILIZATION**

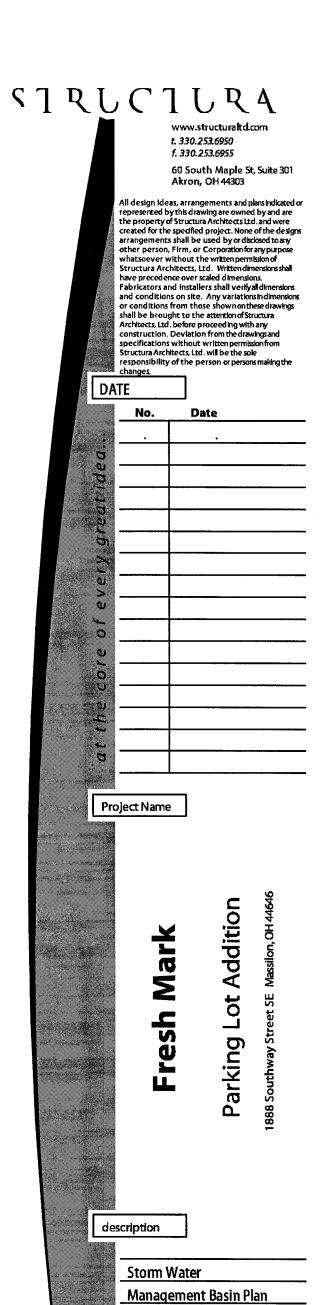
ALL BORROW AREAS SHALL BE GRADED TO PROVIDE PROPER DRAINAGE AND LEFT IN A SIGHTLY CONDITION. ALL EXPOSED SURFACES OF THE EMBANKMENT, SPILLWAY, SPOIL AND BORROW AREAS, AND BERMS SHALL BE STABILIZED BY SEEDING, LIMING, FERTILIZING AND MULCHING IN ACCORDANCE WITH THE REQUIREMENTS OF ODOT ITEM 659.

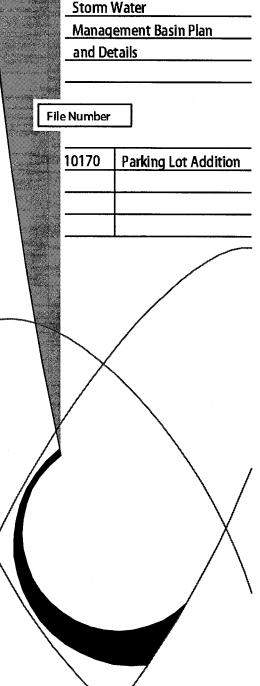
# EROSION AND SEDIMENT CONTROL

CONSTRUCTION OPERATIONS WILL BE CARRIED OUT IN SUCH A MANNER THAT EROSION WILL BE CONTROLLED AND WATER AND AIR POLLUTION MINIMIZED. FEDERAL, STATE AND LOCAL LAWS CONCERNING POLLUTION ABATEMENT WILL BE FOLLOWED AND ALL CONSTRUCTION SHALL BE IN ACCORDANCE WITH THE STORM WATER POLLUTION PREVENTION PLAN FOR THE SITE.



SUMMARY OF DRAINAGE CALCULATIONS								
STORM DESIGN FREQUENCY (YEARS)	WATER QUALITY	2	5	(DUR. CONST.)	10	25	50	100
PRE-DEVELOPMENT PEAK DISCHARGE (cfs)	N/A	15.7	19.2	22.3	22.3	27.3	29,2	33.5
STORM WATER MANAGEMENT BASIN POST-DEVELOPMENT PEAK INFLOW (cfs)	N/A	18.9	23.5	27.4	27.1	33.1	35.2	40.4
DETAINED PEAK DISCHARGE (cfs)	N/A	12.3	17.3	1.9	21.0	25.2	25.7	
PEAK WATER SURFACE ELEV.	1023.50	1024.75	1024.92	1025.33	1025.04	1025.23	1025.32	26.4 1025.58
STORAGE VOLUME (cf)	15,135	11,744	13,507	28,568	14,732	16,905	17,929	20,987
S-CONSTRUCTED RETAINED PEAK DISCHARGE (cfs)	N/A			N/A				





# GENERAL NOTES:

- ALL WORK SHALL BE DONE IN ACCORDANCE WITH THE APPLICABLE CODES AND ORDINANCES OF THE CITY OF MASSILLON.
- SITE WORK SPECIFICATIONS ALL ITEM NUMBERS REFER TO THE STATE OF OHIO, DEPARTMENT OF TRANSPORTATION CONSTRUCTION AND MATERIAL SPECIFICATIONS, 2008 EDITION. ALL EQUIPMENT, MATERIAL AND WORKMANSHIP SHALL BE PERFORMED ACCORDING TO THESE SPECIFICATIONS AND ANY OHIO DEPARTMENT OF TRANSPORTATION STANDARD CONSTRUCTION DRAWINGS (SCD) REFERENCED ON THE PLANS.
- 3. THE CONTRACTOR SHALL BE RESPONSIBLE FOR OBTAINING ALL PERMITS REQUIRED FOR THIS PROJECT.

MASSILLON, OHIO 44647 ATT: DON SNYDER

151 LINCOLN WAY EAST

MASSILLON, OHIO 44646

THE LOCATION OF THE UNDERGROUND UTILITIES SHOWN ON THE PLANS ARE AS OBTAINED FROM THE OWNERS AS REQUIRED BY SECTION 153.64 ORC. LISTED BELOW ARE ALL UTILITIES LOCATED WITHIN THE PROJECT CONSTRUCTION LIMITS TOGETHER WITH THEIR RESPECTIVE OWNERS:

ELECTRIC: FIRST ENERGY 1910 W. MARKET, BLDG.

50 W. BOWERY STREET, 6TH FLOOR

AKRON, OHIO 44308 ATT: JIM SIEGMUND AKRON, OHIO 44314 ATT: KÉN DOWNS PH: (330) 384-4839 PH: (330) 384-3947

CABLE TELEVISION: AQUA OHIO INC. 870 3RD STREET N.W. MASSILLON CABLE TV 814 CABLE CT. N.W.

MASSILLON, OHIO 44648 ATT: JEFF CAMPBELL PH: (330) 833-4134

PH: (330) 832-5764 EXT. 205 CITY OF MASSILLON ENGINEERS MUNICIPAL GOVT. ANNEX DOMINION EAST OHIO 7015 FREEDOM AVE. N.W. NORTH CANTON, OHIO 44720 ATT: HARVEY YERGIN ATT: KEITH A. DYLEWSKI, PE PH: (330) 266-2049 PH: (330) 830-1722

EXISTING FIELD CONDITIONS SHALL BE FIELD CHECKED AND VERIFIED BY THE CONTRACTOR PRIOR TO BIDDING. SHOULD THERE BE ANY DISCREPANCY BETWEEN THE PLANS AND EXISTING FIELD CONDITIONS; THE CONTRACTOR SHALL SEEK WRITTEN CLARIFICATION FROM THE OWNER'S REPRESENTATIVE PRIOR TO THE BID SUBMISSION.

SHOULD THE CONTRACTOR ENCOUNTER CONFLICT BETWEEN THESE PLANS AND SPECIFICATIONS, EITHER AMONG THEMSELVES OR WITH THE REQUIREMENTS OF ANY AND ALL REVIEWING AND PERMIT-ISSUING AGENCIES, THE CONTRACTOR SHALL SEEK CLARIFICATION IN WRITING FROM THE OWNER'S REPRESENTATIVE PRIOR TO BID SUBMISSION.

7. IT SHALL BE THE CONTRACTOR'S RESPONSIBILITY TO USE CONSTRUCTION MEANS AND METHODS THAT WILL PROTECT PROPERTY AND PREVENT BODILY INJURY AND/OR DEATH. THE CONTRACTOR SHALL COMPLY WITH THE SAFETY REQUIREMENTS OF CITY, STATE, AND FEDERAL GOVERNMENTS.

CONSTRUCTION SHALL BE PERFORMED, AND EQUIPMENT STORED, IN A MANNER WHICH PERMITS EXISTING FACILITIES TO PERFORM WITHOUT INTERRUPTION.

MAILBOX, PAPER BOX, TELEPHONE OR POWER POLES, SIGNS, FENCES, RETAINING WALLS, LANDSCAPING ITEMS, ETC. ANY ITEM DAMAGED SHALL BE REPLACED AT THE CONTRACTOR'S EXPENSE. ANY ITEM DISTURBED OR IN CONFLICT WITH THE WORK TO BE PERFORMED SHALL BE REMOVED AND RESET AT THE CONTRACTOR'S EXPENSE, UNLESS OTHERWISE NOTED ON THE PLANS.

THE CONTRACTOR SHALL BE RESPONSIBLE FOR CLEARING AND GRUBBING, WHICH SHALL BE PERFORMED IN ACCORDANCE WITH THE REQUIREMENTS OF ODOT ITEM 201. THIS WORK SHALL CONSIST OF CLEARING, GRUBBING, SCALPING, REMOVAL OF TREES AND STUMPS, AND REMOVING AND DISPOSING OF ALL VEGETATION AND DEBRIS WITHIN THE LIMITS DESIGNATED ON THE PLANS.

11. THE CONTRACTOR SHALL BE RESPONSIBLE FOR REMOVAL OF STRUCTURES AND OBSTRUCTIONS. THIS WORK SHALL CONSIST OF THE REMOVAL, WHOLLY OR IN PART, AND SATISFACTORY DISPOSAL OF ALL BUILDINGS, FENCES, GUARDRAILS, STRUCTURES, OLD PAVEMENTS, ABANDONED PIPE LINES, STORAGE TANKS, PRIVY VAULTS, AND ANY OTHER OBSTRUCTIONS WHICH ARE NOT DESIGNATED OR PERMITTED TO REMAIN, EXCEPT FOR THE OBSTRUCTIONS TO BE REMOVED UNDER OTHER ITEMS IN THE DESIGN

12. THE CONTRACTOR SHALL PERFORM EXCAVATION AND EMBANKMENT ACTIVITIES IN ACCORDANCE WITH THE REQUIREMENTS OF ODOT ITEM 203. THIS WORK SHALL CONSIST OF PREPARATION OF AREAS UPON WHICH EMBANKMENTS ARE TO BE PLACED; EXCAVATION AS REPRESENTED ON THE PLANS, INCLUDING THE REMOVAL OF ALL MATERIAL ENCOUNTERED NOT BEING REMOVED UNDER ANOTHER ITEM; CONSTRUCTING EMBANKMENTS WITH THE EXCAVATION MATERIAL AND MATERIAL FROM OTHER SOURCES OF THE PROPERTY OF THE PLANTED BY THE PL NECESSARY TO COMPLETE THE PLANNED EMBANKMENTS; FURNISHING AND INCORPORATING ALL WATER REQUIRED FOR COMPACTING EMBANKMENT AND SUBGRADE; DISPOSING OF UNSUITABLE AND SURPLUS MATERIAL; PREPARING THE SUBGRADE; TESTING THE STABILITY AND UNIFORMITY OF COMPACTION OF THE SUBGRADE FOR AREAS SPECIFICALLY CALLED FOR ON THE PLANS; ALL IN CLOSE CONFORMITY WITH THE LINES, GRADES, AND THICKNESSES SHOWN ON THE PLANS.

13. THE CONTRACTOR MUST MEET THE FOLLOWING COMPACTION REQUIREMENTS: A.) RELATIVE COMPACTION UNDER BUILDINGS (TO WITHIN 5 FT. OF BUILDING LIMITS) AND UNDER PAVEMENT AREAS SHALL MEET 100% OF THE "STANDARD" PROCTOR MAXIMUM DRY DENSITY WITH A

WATER CONTENT WITHIN ±2% OF THE LABORATORY "OPTIMUM WATER CONTENT". B.) RELATIVE COMPACTION WITHIN UTILITY TRENCHES SHALL MEET 95% OF THE "STANDARD" PROCTOR MAXIMUM DRY DENSITY WITH A WATER CONTENT WITHIN ±3% OF THE LABORATORY "OPTIMUM WATER

C.) RELATIVE COMPACTION WITHIN YARD AREAS SHALL MEET 90% OF THE "STANDARD" PROCTOR MAXIMUM DRY DENSITY WITH A WATER CONTENT WITHIN  $\pm 3\%$  OF THE LABORATORY "OPTIMUM WATER

14. WHEREVER UNSTABLE SOIL SUBGRADE CONDITIONS ARE ENCOUNTERED THAT ARE UNSUITABLE PER ODOT 204 SPECIFICATIONS, ADDITIONAL EXCAVATION AND SUBSEQUENT BACKFILLING SHALL BE DONE BY THE CONTRACTOR UNTIL SUCH CONDITIONS ARE CORRECTED. THIS WORK SHALL BE LISTED IN THE BID AS A CONTINGENCY ITEM, WITH A UNIT PRICE PER CUBIC YARD.

15. SUBGRADE TESTING OR PROOF ROLLING MUST BE WITNESSED AND APPROVED BY THE OWNER OR A QUALIFIED INDIVIDUAL DESIGNATED BY THE OWNER.

16. STORM SEWERS SHALL BE INSTALLED IN ACCORDANCE WITH THE REQUIREMENTS OF ODOT ITEM 603. BEDDING AND BACKFILL SHALL BE IN ACCORDANCE WITH THE REQUIREMENTS OF ODOT STANDARD CONSTRUCTION DRAWING (SCD) DM-1.4 - CONDUIT INSTALLATION.

17. UNLESS OTHERWISE NOTED, ALL STORM SEWER INSTALLATIONS ARE TO BE INSTALLED USING TYPE E CONDUITS WITH CLASS B BEDDING IN ACCORDANCE WITH THE REQUIREMENTS OF ODOT ITEM 603. THE FOLLOWING PIPE MATERIALS ARE APPROVED FOR THIS PROJECT: REINFORCED CONCRETE PIPE (RCP) IN ACCORDANCE WITH ODOT ITEM 706.02 HIGH-DENSITY CORRUGATED POLYETHYLENE (HDPE) SMOOTH LINED PIPE IN ACCORDANCE WITH

C.) POLYVINYL CHLORIDE SOLID WALL PIPE (PVC) IN ACCORDANCE WITH ODOT ITEM 707.45, 8" DIAMETER AND SMALLER ONLY.

18. DOWNSPOUT LEADERS ARE TO BE CONSTRUCTED AT A MINIMUM RATE OF 1.00%.

CONSTRUCT ALL MANHOLES, CATCH BASINS, AND INLETS REPRESENTED ON THE PLANS IN ACCORDANCE WITH THE REQUIREMENTS OF ODOT ITEM 604. THIS SHALL INCLUDE ALL APPURTENANCES NECESSARY TO PROVIDE A COMPLETE FINISHED STRUCTURE, SUCH AS CAST FRAMES, GRATES, COVERS, STEPS AND OTHER SPECIFIED MATERIALS.

20. THE CONTRACTOR SHALL BE RESPONSIBLE FOR PIPE UNDERDRAINS WITH GRANULAR FILTER AND FILTER FABRIC AROUND ALL CATCH BASINS WHICH ARE TO BE LOCATED IN PAVED AREAS. UNDERDRAINS ARE TO BE CONSTRUCTED IN ACCORDANCE WITH THE REQUIREMENTS OF ODOT ITEM 605 AND THE DETAIL

21. ALL CATCH BASINS LOCATED IN PAVED AREAS SHALL BE EQUIPPED WITH BICYCLE SAFE GRATES.

THE CONTRACTOR SHALL BE RESPONSIBLE FOR MATERIALS AND INSTALLATION OF THE PROPOSED SANITARY SERVICE SEWER. MATERIAL AND INSTALLATION SPECIFICATIONS SHALL BE IN ACCORDANCE WITH THE THE CITY OF MASSILLON. IN LIEU OF LOCAL MATERIAL AND INSTALLATION SPECIFICATIONS, HE SERVICE SEWER SHALL BE 6 IN. DIAMETER PVC IN ACCORDANCE WITH ASTM D-3034, WITH JOINTS IN ACCORDANCE ASTM D-3212 AND BEDDING IN ACCORDANCE WITH ASTM D-2321, AND SHALL BE LAID AT A RATE NO LESS THAN ONE PERCENT (1.00%).

THE CONTRACTOR SHALL BE RESPONSIBLE FOR STRIPPING AND STOCKPILING TOPSOIL IN ACCORDANCE WITH THE REQUIREMENTS OF ODOT ITEM 651. THIS WORK SHALL CONSIST OF STRIPPING TOPSOIL FROM DESIGNATED AREAS WITHIN THE WORK LIMITS, TRANSPORTING AND STORING IN PILES AT LOCATIONS DESIGNATED BY THE OWNER.

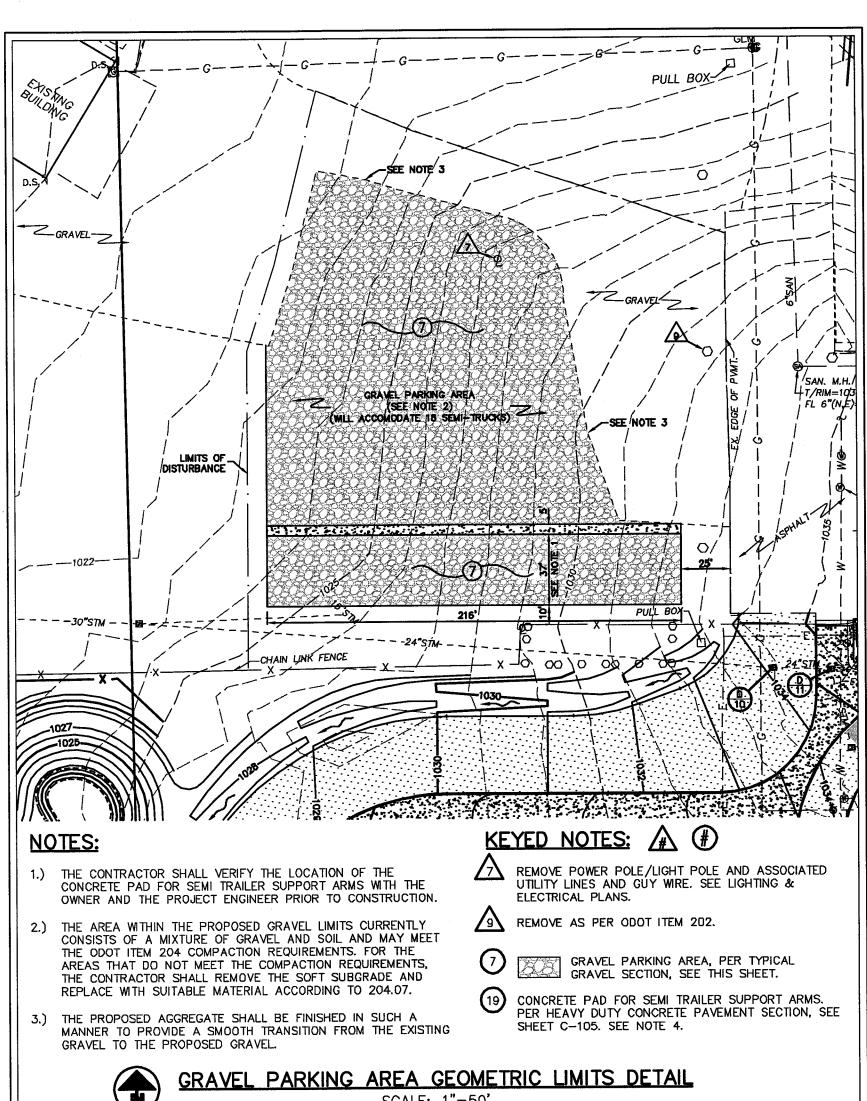
THE CONTRACTOR SHALL BE RESPONSIBLE FOR PLACING STOCKPILED TOPSOIL IN ACCORDANCE WITH THE REQUIREMENTS OF ODOT ITEM 652. THIS WORK SHALL CONSIST OF HAULING AND SPREADING TOPSOIL FROM STOCKPILES, AND PREPARING THE SUBGRADE.

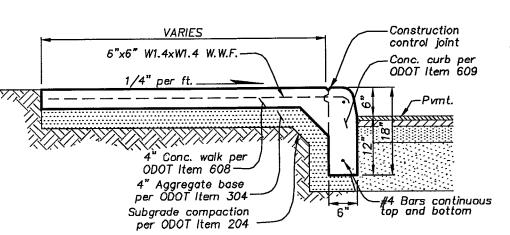
25. THE CONTRACTOR SHALL BE RESPONSIBLE FOR SEEDING AND MULCHING ALL DISTURBED AND PROPOSED YARD AREAS IN ACCORDANCE WITH THE REQUIREMENTS OF ODOT ITEM 659. THIS WORK SHALL CONSIST OF FURNISHING ALL SEED, AGRICULTURAL LIMING MATERIALS, COMMERCIAL FERTILIZER, MULCHING MATERIAL, AND WATER AND PLACING AND INCORPORATING WHERE NECESSARY.

THE CONTRACTOR SHALL BE RESPONSIBLE FOR MAINTAINING TRAFFIC IN ACCORDANCE WITH THE REQUIREMENTS OF ODOT ITEM 614. THIS WORK SHALL CONSIST OF MAINTAINING AND PROTECTING VEHICULAR AND PEDESTRIAN TRAFFIC AS NECESSARY.

THE CONTRACTOR SHALL BE RESPONSIBLE FOR DUST CONTROL IN ACCORDANCE WITH THE REQUIREMENTS OF ODOT ITEM 616. THIS WORK SHALL CONSIST OF APPLYING, WHEN ORDERED, WATER OR DUST PALLIATIVE FOR THE ALLEVIATION OR PREVENTION OF DUST NUISANCE ORIGINATING

28. SEE THE STORM WATER POLLUTION PREVENTION PLAN (SWP3) (SHEET C-201), FOR EROSION



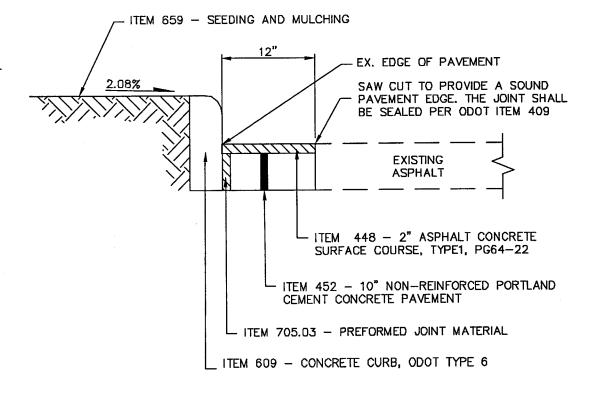


Concrete walk shall have expansion joints 20'-0" O.C. and construction joints 5'-0" O.C.

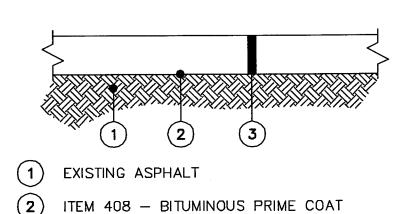
face of curb shall have a 3° rounding COMBINATION CONCRETE CURB AND WALK

Exposed face of curb shall have a 6:1 cant and the top

# SCALE: NONE



PROP. CURB ALONG EX. PAVEMENT DETAIL SCALE: NONE



PT OL 309

PT OL 308

(SEE NOTE)

PT OL 487 IS OWNED BY LEANN INC.,

GRASS

SEE GRADING

PLAN

WHICH IS AFFILIATED WITH FRESH MARK INC.

EXIST. PAVEMENT TO BE SAW CUT

SEAL JOINT PER ODOT ITEM 423 -

CRACK SEALING, HOT APPLIED, TYPE

IV. INCLUDE COST IN PRICE BID FOR

THE PROPOSED ASPHALT

EDGE OF PVMT.

1 2 3 4 5 6

SURFACE COURSE, TYPE 1

(2) ITEM 448 - (STD. DUTY PVMT.) 3" ASPHALT CONCRETE

1.) IF BOTH 448 PAVEMENTS ARE PLACED ON THE SAME DAY, THE TACK

COAT MAY BE OMITTED, OTHERWISE THE TACK COAT SHALL BE

ASPHALT PAVEMENT SECTION

SCALE: NONE

INTERMEDIATE COURSE, TYPE 2

INTERMEDIATE COURSE, TYPE 2

- (HEAVY DUTY PVMT.) 4" ASPHALT CONCRETE

1) ITEM 448 - 1-1/2" ASPHALT CONCRETE

(3) ITEM 407 - TACK COAT (SEE NOTE 1)

(4) ITEM 408 - BITUMINOUS PRIME COAT

(5) ITEM 304 - 6" AGGREGATE BASE

6 ITEM 204 - SUBGRADE COMPACTION

(0.4 GAL./S.Y.)

APPLIED AT A RATE OF 0.075 GAL. PER SQ. YD.

PER PLAN

AND SHALL BE SMOOTH AND SQUARE

OL 493

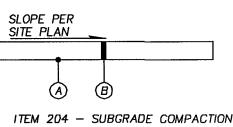
OL 494

EXIST. ASPHALT

PAVEMENT

ITEM 448 - 1-1/2" ASPHALT CONCRETE SURFACE COURSE, TYPE 1

ASPHALT PAVEMENT OVERLAY SECTION SCALE: NONE



(A) ITEM 204 - SUBGRADE COMPACTION ITEM 304 - 8" AGGREGATE BASE

OL 453

7+P.P. No. 0701618

FRESH MARK I

CONRAIL\_RR

(2, 4" COURSES) (SEE NOTE) THE AGGREGATE MATERIAL SHALL BE OH SLAG, CONTRACTOR SHALL ACQUIRE OWNERS APPROVAL OF THE MATERIAL PRIOR TO ORDERING OF MATERIAL AND INSTALLATION.

TYPICAL GRAVEL SECTION

LOT OWNERSHIP TABLE					
LOT No.	OWNER	PARCEL No.	ZONED		
PT 13999	GENSHAFT LEONA TRUSTEE ETAL	0900249	NONE		
PT 0L 481	FRESH MARK INC.	0701291	1–1		
PT OL 984	RUSSELL L. BOUGHMAN	0701544	I <del>-</del> 1		
OL 484	SCOTT A. & ANGELA C. BUSH	0701733	I <b>-</b> 1		
12837	FRESH MARK INC.	0700107	R-1		
12842	FRESH MARK INC.	0700106	R-1		
12846	FRESH MARK INC.	0700112	R-1		
12845	EUGENE B. & BONITA L. YEAGER	0700120	B-1		
12824	FRESH MARK INC.	0700090	R-1		
0.17 AC. TRACT	FRESH MARK INC.	4319412	NONE		
17188	LEANNE INC	0701616	A-1		
12756	CHAD M. HARTMAN	0713716	RT		
OL 494	LEANNE CORP	0700145	B-3		
12817	EAST OHIO GAS COMPANY	0700519	8-3		
OL 493	LEANNE CORPORATION	0700101	B-3		
PT OL 487	LEANN INC.	0701534	I <b>-</b> 1		
OL 447	NORFOLK SOUTHERN RAILWAY COMPANY	0799003	NONE		
OL 457	FRESH MARK INC.	0700140	1-1		

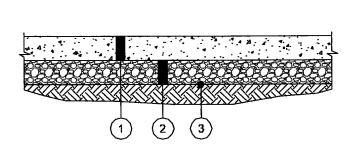
12842

12843

12844

12836

SOUTHWAY ST SW 60'



(1) ITEM 452 - (STD. DUTY) 4" NON-REINFORCED PORTLAND CEMENT CONCRETE PAVEMENT

- (HEAVY DUTY) 6" NON-REINFORCED PORTLAND CEMENT CONCRETE PAVEMENT

(2) ITEM 304 - 6" AGGREGATE BASE (3) ITEM 204 - SUBGRADE COMPACTION

NOTES:

1.) MAXIMUM TRANSVERSE JOINT SPACING = 15' 2.) MAXIMUM LONGITUDINAL JOINT SPACING = 18'

LONGITUDINAL AND TRANSVERSE JOINTS SHALL BE PER ODOT'S STAND. CONSTRUCTION DRAWINGS BP-2.1 & BP-2.2 RESPECTIVELY.

#### CONCRETE PAVEMENT SECTION SCALE: NONE



**AVENUE NORTH** 

CANTON, OHIO

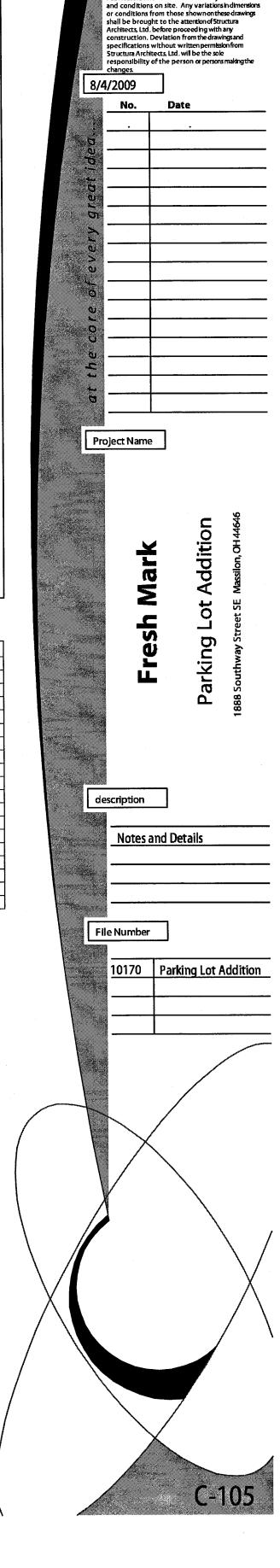
44714

PLANS PREPARED BY:

**COOPER & ASSOCIATES, LLP ENGINEERS AND SURVEYORS** 

BRYAN J. ASHMAN

JEROLD E. GEIB PHONE (330) 452-5731 FAX No.(330) 452-9110



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t. 330.253.6950

Akron, OH 44303 design ideas, arrangements and plans indicated

eated for the specified project. None of the design rrangements shall be used by or disclosed to ther person, Firm, or Corporation for any purp ever without the written permission o

icators and installers shall verify all dimens

e precedence over scaled dimensions

T/C = TOP OF CURB ELEVATIONT/G = TOP OF GRATE ELEVATION NCH = NORMAL CURB HEIGHT

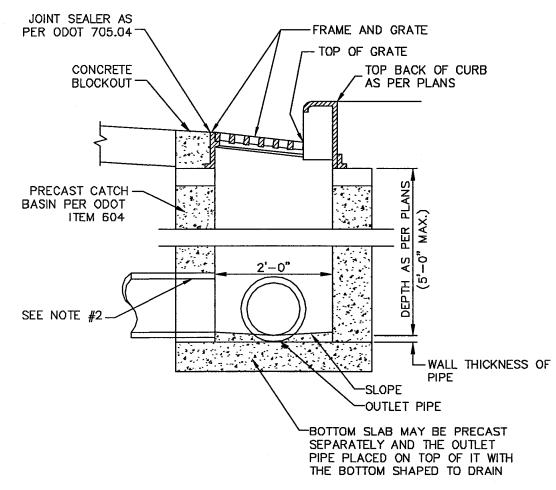
NCH + 2"

WIDTH OF CURB CASTING

T/C ELEV. AS SHOWN ON PLANS

GUTTER PROFILE FOR STRAIGHT CURB

T/G = T/C - (NCH + 2")



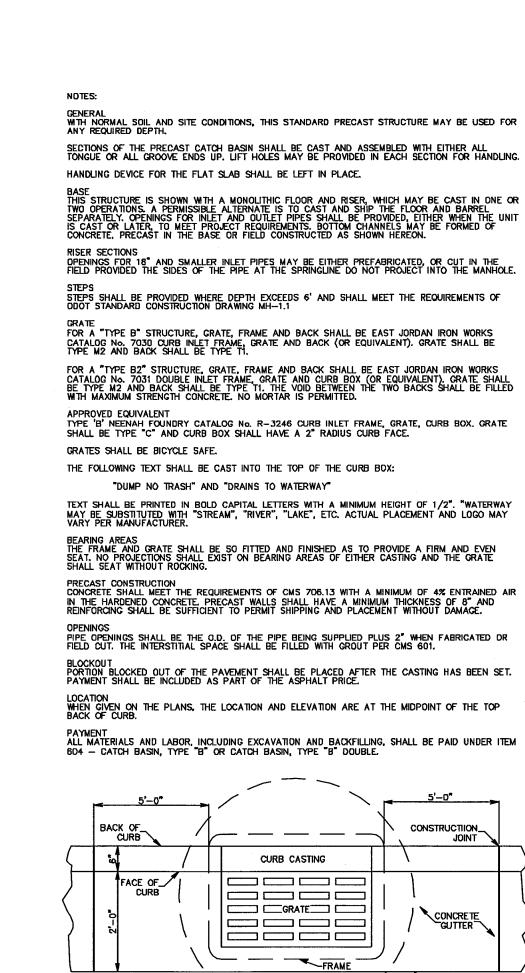
# <u>NOTES</u>

- 1. FRAME AND GRATE SHALL BE EAST JORDAN #7030 (SINGLE), #7031 (DOUBLE), OR EQUAL, USING TYPE TI BACK AND TYPE M2 GRATE, OR APPROVÉD EQUAL.
- 2. OPENINGS SHALL BE GROUTED INSIDE AND OUTSIDE OF CATCH BASIN PER ODOT 604.06
- BLOCKOUT AREA SHALL BE CAST-IN-PLACE CONCRETE, CLASS "C" AND FORMED TO MEET THE ADJACENT COMBINATION CURB AND GUTTER AND FRAME LINES AND DIMENSIONS.
- 4. FRAME SHALL BE SET IN A BITUMINOUS SEAL MATERIAL PER ODOT 706.10 COVERING THE ENTIRE FLANGE. ALLOW FOR ONE COURSE OF BRICK ADJUSTMENT BETWEEN THE TOP OF THE PRECAST UNIT AND THE METAL FRAME. ALL ADJUSTMENTS TO THE FRAME SHALL BE DONE USING RED
- 5. WHEN TWO FRAMES ARE SET SIDE BY SIDE, FILL VOID WITH MAXIMUM STRENGTH CONCRETE. NO MORTAR IS PERMITTED.
- 6. THE FOLLOWING TEXT SHALL BE CAST INTO THE TOP OF THE CURB "DUMP NO WASTE" AND "DRAINS TO WATERWAY"
- TEXT SHALL BE PRINTED IN BOLD, CAPITAL LETTERS WITH A MINIMUM HEIGHT OF 3/4". CAST-IN-PLACE WALLS SHALL HAVE A NOMINAL THICKNESS OF 8 INCHES
- AND SHALL BE CLASS "C". FOR BASINS CONSTRUCTED OF BRICK, THE BASIN SHALL HAVE A 6" THICK CAST-IN-PLACE CONCRETE (4000 PSI) BOTTOM AND WALLS OF RED BRICK ONLY. BRICK WALLS SHALL BE PARGED
- 8. ALL PRECAST CONCRETE SHALL MEET THE REQUIREMENTS OF ODOT 706.13 WITH 6%±2% AIR VOID CONTENT IN THE HARDENED CONCRETE. PRECAST WALLS SHALL HAVE A MINIMUM THICKNESS OF 6 INCHES, AND BE REINFORCED SUFFICIENTLY TO PERMIT SHIPPING AND HANDLING WITHOUT DAMAGE. BASINS SHALL BE MARKED WITH CATCH BASIN NUMBER.
- 9. OPENINGS FOR PIPE SHALL BE MADE TO ACCOMMODATE THE TYPE(S) OF PIPES USED FOR THE PROJECT.
- 10. A TYPE "A" DESIGNATION REFERS TO A SINGLE INLET CATCH BASIN. A TYPE "A2" DESIGNATION REFERS TO A DOUBLE INLET CATCH BASIN.

TYPE "A" / TYPE "A2" CATCH BASIN

2'-0"

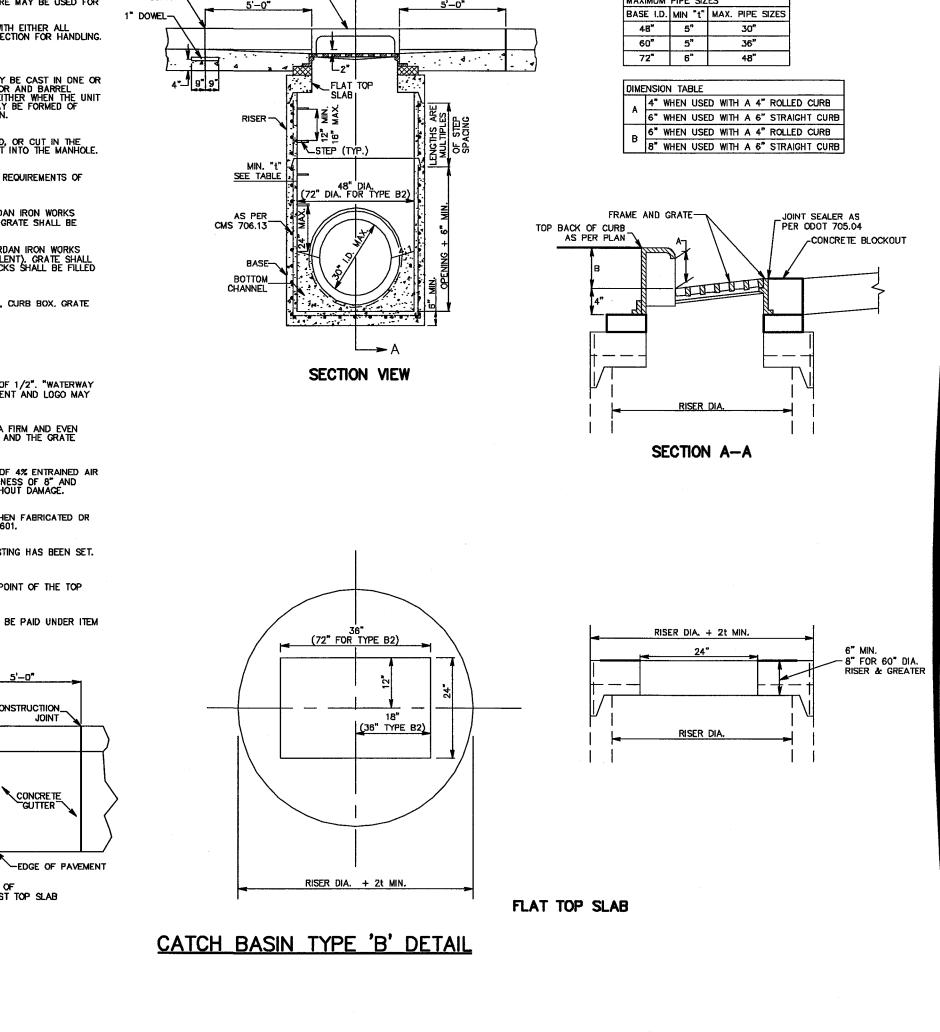
DROP GUTTER 2" IN 20 FEET

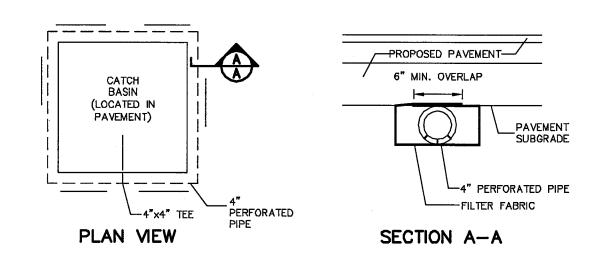


CONSTRUCTION\_

CONCRETE

PLAN VIEW

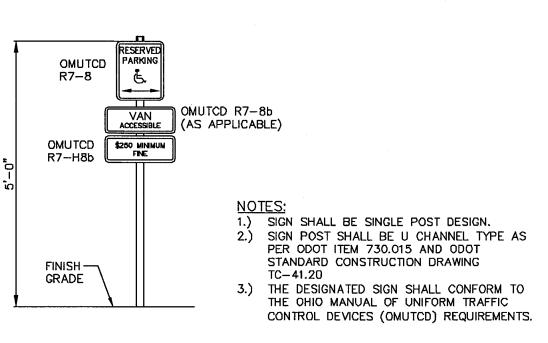




MINIMUM TRENCH WIDTH SHALL BE 10 INCHES. THE TOP OF THE TRENCH MUST BE BELOW THE PROPOSED PAVEMENT SUBGRADE. THE TRENCH SHALL BE LINED WITH FILTER FABRIC. THE FABRIC SHALL COMPLETELY SURROUND THE GRANULAR FILTER MATERIAL. THE FILTER FABRIC SHALL BE IN ACCORDANCE WITH ODOT ITEM 712.09,

THE UNDERDRAIN PIPE SHALL BE 4" PERFORATED CORRUGATED POLYETHYLENE DRAINAGE TUBING IN ACCORDANCE WITH ODOT ITEM 605. THE PIPE SHALL BE LAID AT A MINIMUM OF 1.00% GRADE SLOPING TO THE OUTLET, WHICH SHALL BE FIELD CUT INTO THE CATCH BASIN. THE GRANULAR FILTER BACKFILL MATERIALS SHALL BE MADE FROM DURABLE No. 8 GRAVEL, STONE OR AIR—COOLED BLAST FURNACE SLAG. IT SHALL BE PLACED FOR THE FULL WIDTH OF THE TRENCH AROUND THE PIPE AND SHALL EXTEND TO THE BOTTOM OF THE PAVEMENT AS SHOWN ON THE PLAN. THE UNDERDRAIN TRENCH SHALL HAVE THE PAVEMENT PLACED OVER IT NO LATER THAN 90 DAYS AFTER THE TRENCH BACKFILL IS PLACED. IF TRENCH IS TO BE OPEN LONGER THAN 90 DAYS, THEN BACKFILL CONTAMINATED BY SOIL SHALL BE REMOVED AND REPLACED.

CATCH BASIN UNDERDRAIN DETAIL





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NCH

1" EXP. JOINT

DROP GUTTER 2" IN 20 FEET

CANTON, OHIO 44714

SIRUCIURA

/4/2009

Project Name

File Number

10170 | Parking Lot Addition

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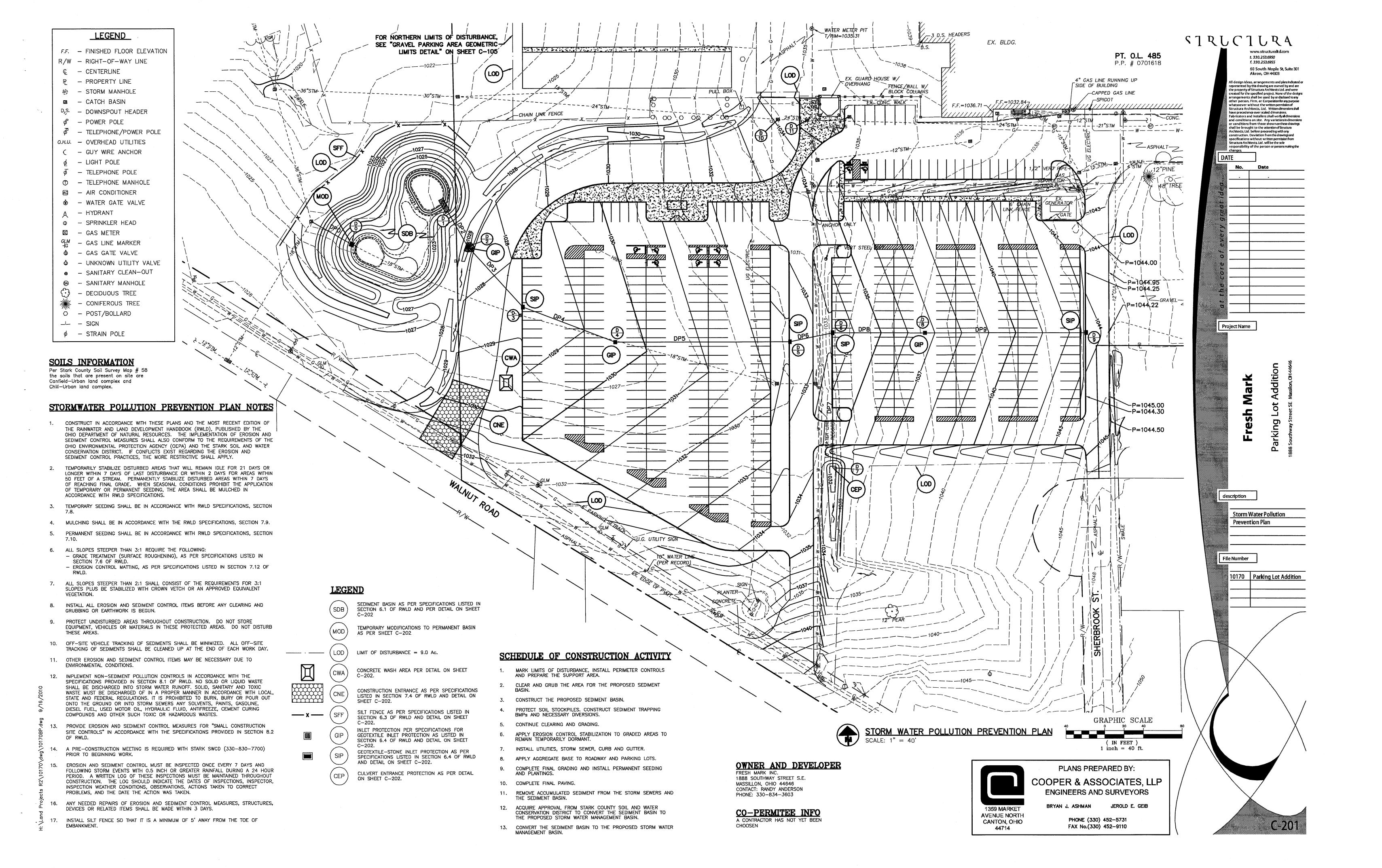
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Date

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- . Silt fence shall be constructed before upslope land distur- 9. Soams between sections of silt fence shall be spliced
- 2. All silt fence shall be placed as close to the contour as possible so that water will not concentrate at low points in the fence and so that small swales or depressions that may carry small concentrated flows to the silt fence are dissipated along its length.
- Ends of the silt ferces shall be brought upslope slightly so that water ponded by the silt fence will be prevented from Cowing around the ends.
- Silt fence shall be placed on the flattest area available.
- Where possible, vegetation shall be preserved for 5 feet. (or as much as possible) upslope from the silt fence. If vegetation is removed, it shall be reestablished within 7
- days from the installation of the silt fence. The height of the silt fence shall be a minimum of 16
- inches above the original ground surface. The silt fence shall be placed in an excavated or sliced french cut a minimum of 6 inches deep. The trench shall be made with a trencher, cable laying machine, slicing machine, or other suitable device that will ensure an adequately uniform trench depth.
- B. The silt fence shall be placed with the stakes on the downslope side of the geotextile. A minimum of 8 inches of geotextile must be below the ground surface. Excess material shall lay on the bottom of the 8-inch deep trench. The trench shall be backfilled and compacted on both sides of the fabric.

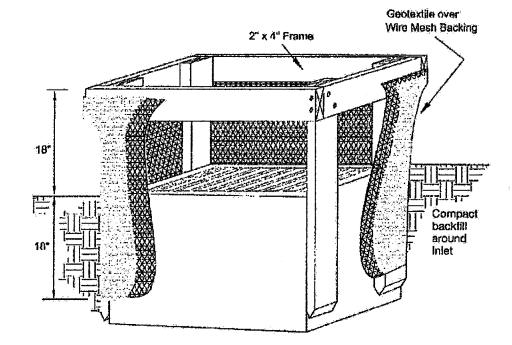
together only at a support post with a minimum 6-in. overlap prior to driving into the ground, (see details).

3) other practices shall be installed.

- 10. Maintenance Sift fence shall allow runoff to pass only as diffuse flow through the geotextile. If rungif overtops the slit fence, flows under the fabric or around the fence ends, or in any other way allows a concentrated flow discharge, one of the following shall be performed. as appropriate: 1) the layout of the sitt fence shall be changed, 2) accumulated sediment shall be removed, or
- Sediment deposits shall be routinely removed when the deposit reaches approximately one-half of the height of
- Silt fences shall be inspected after each rainfall and at least daily during a prolonged rainfall. The location of existing silt fence shall be reviewed daily to ensure its proper location and effectiveness. If damaged, the silt fence shall be repaired immediately. Criteria for silt fence materials
- . Fence post The length shall be a minimum of 32 inches. Wood posts will be 2-by-2-in, nominal dimensioned hardwood of sound quality. They shall be tree of knots, splits and other visible imperfections, that will weaken the posts. The maximum spacing between posts shall be 10 ft. Posts shall be driven a minimum 16 inches into the ground, where possible. If not possible, the posts shall be adequately secured to prevent overturning of the fence due to sadiment/water loading.
- 2. Silt fence fabric See chart below.

FABRIC PROPERTIES	VALUES	TEST METHOD
Minimum Tensile Strength	120 lbs. (535 M)	ASTM D 4632
Maximum Elongation at 60 lbs	50%	ASTM D 4832
Minimum Puncture Strength	50 lbs (220 N)	ASTM D 4833
Minimum Tear Strength	40 lbs (180 N)	ASTM D 4533
Apparent Opening Size	≤ 0.84 mm	ASTM D 4751
Minimum Permittivity	1X10-2 sec1	ASTM D 4491
UV Exposure Strength Retention	70%	ASTM G 4355





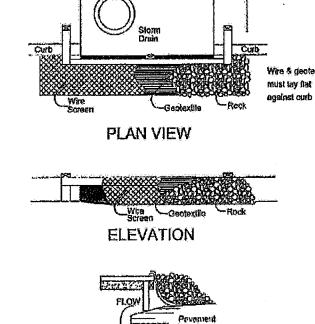
SECTION

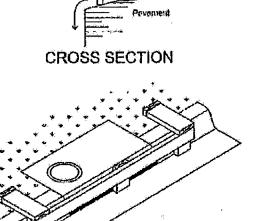
- 1. Inlet protection shall be constructed either before upslope 5. Geolexille material shall have an equivalent opening size land disturbance begins or before the inlet becomes
- 2. The earth around the inlet shall be excavated completely to a depth at least 18 inches.
- 3. The wooden frame shall be constructed of 2-inch by 4-inch construction grade lumber. The 2-inch by 4-inch nosts shall be driven one (1) ft. Into the ground at four corners of the injet and the top portion of 2-inch by 4-inch frame assembled using the overlap joint shown. The top roads if ponded water will pose a safety hazard to traffic.
- 4. Wire mesh shall be of sufficient strength to support fabric with water fully impounded against it. It shall be stretched tightly around the frame and fastened securely
- of 20-40 sieve and be resistant to sunlight. It shall be stretched tightly around the frame and fastened securely. It shall extend from the top of the trame to 18 inches below the inlet notch elevation. The geotextile shall overlab across one side of the inlet so the ends of the cloth are not fastened to the same post.

6. Backfill shall be placed around the inlet in compacted 6-

- inch layers until the earth is even with notch elevation on ends and top elevation on sides. of the frame shall be at least 6 inches below adjacent 7. A compacted earth dike or check dam shall be constructed in the ditch line below the injet if the injet is not
  - in a depression. The top of the dike shall be at least 6 inches higher than the top of the frame.

GEOTEXTILE INLET PROTECTION





GEOTEXTILE-STONE INLET PROTECTION

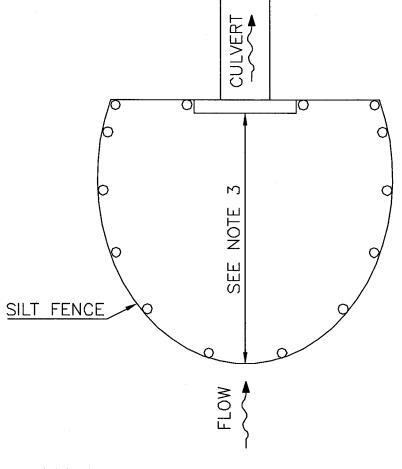
1. Injet protection shall be constructed either before upslope land disturbance begins or before the inlet becomes

- 2. Construct a wooden frame of 2-by-4-in. constructioncrade lumber. The end spacers shall be a minimum of 3 ft, boyond both ends of the throat opening. The anchors shall be nalled to 2-by-4-in, stakes driven on the opposite side of the curb.
- 3. The wire mesh shall be of sufficient strength to support fabric and stone. It shall be a continuous piece with a minimum width of 30 in. and 4 ft. longer than the throat length of the inlet, 2 ft. on each side.
- 4. Geotextile cloth shall have an equivalent opening size (EOS) of 20-40 sleve and be resistant to sunlight. It shall be at least the same size as the wire mesh. 5. The wire mesh and geotextile cloth shall be formed to the

concrete gutter and against the face of the curb on both

- sides of the inlet and securely fastened to the 2-by-4-in. 6. Two-inch stone shall be placed over the wire mesh and peotextile in such a manner as to prevent water from
- 7. This type of protection must be inspected frequently and the stone and/or geotextile replaced when clogged with

entering the inlet under or around the geotextile cloth.



SILT FENCE CULVERT ENTRANCE PROTECTION SHOULD NOT BE USED IF THE CONTRIBUTING DRAINAGE AREA IS ONE ACRE OR GREATER. IF THE DRAIANGE AREA IS GREATER THAN 1 ACRE, A CULVERT INLET SEDIMENT TRAP SHOULD BE EMPLOYED.

- 1. THE HEIGHT OF THE SILT FENCE (IN FRONT OF THE CULVERT OPENING) SHALL BE A MINIMUM OF 16 INCHES AND NOT EXCEED 34 INCHES.
- 2. EXTRA STRENGTH FILTER FABRIC WITH A MAXIMUM SPACING OF STAKES OF 3 FEET SHALL BE USED.
- 3. THE PLACEMENT OF THE SILT FENCE SHOULD BE APPROXIMATELY 6 FEET FROM THE CULVERT IN THE DIRECTION OF THE INCOMING FLOW, CREATING THE "HORSESHOE" SHAPE INDICATED ABOVE.

**CULVERT ENTRANCE PROTECTION** SCALE: NONE



STRUCTURA

Project Name

description

File Number

Storm Water Pollution

Prevention Plan Details

10170 | Parking Lot Addition

Additic

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Akron, OH 44303

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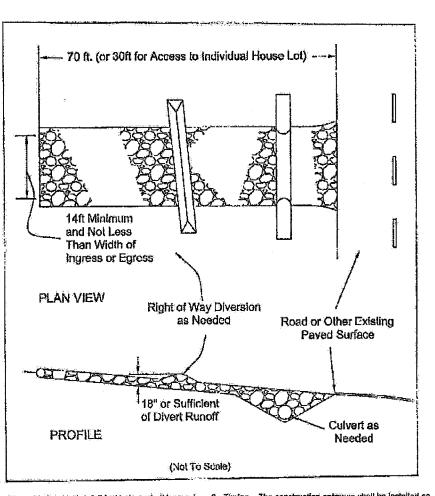
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cifications without written permissi

tura Architects, Ltd. will be the sole

insibility of the person or persons making



- 1. Slone Size—ODOT # 2 (1.5-2.5 Inch) stone shall be tiecd, 6. Timing—The construction entrance shall be installed as
- or recycled concrete equivalent 2. Length—The Construction entrance shall be as long as required to stabilize high traffic areas but not less than 70 ft. (exception: apply 30 ft. minimum to single
- for light duty entrances or at least 10 inches for heavy 4. Width -The entrance shall be at least 14 feet wide, but

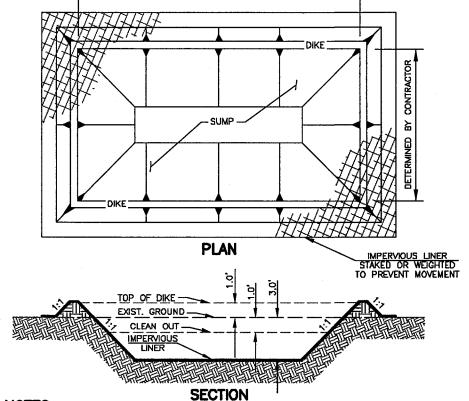
not less than the full width at points where ingress or

Geotextile -A geotextile shall be laid over the entire area prior to placing stone, it shall be composed of strong rot-proof polymeric fibers and meet the following

ACTRES CCCUTS.

- Geolexillo Specification for Construction Entrance 200 lbs. Minimum Tensile Strength Minimum Puncture Strength Minimum Tear Strength 320 psi E08 < 0.6 mm. Equivalent Opening Size
- coon as is practicable before major grading activities. 7. Culvert -A pipe or culvert shall be constructed under the entranco if needed to prevent surface water from flowan across the entrance or to prevent renotifirom being irected out onto payed surfaces.
- 3. Thickness -The stone layer shall be at least 6 inches thick 8. Water Bar -A water bar shall be constructed as part of the construction entrance if needed to prevent surface runoff from flowing the length of the construction entrance and out onto payed surfaces.
  - . Maintenance -Top dressing of additional stone shall be applied as conditions demand. Mud spilled, dropped, washed or tracked onto public roads, or any surface where runoff is not checked by sediment controls, shall be removed immediately. Removal shall be accomplished. 10. Construction entrances shall not be relied upon to remove
  - mud from vehicles and prevent off-site tracking. Vehicles that enter and leave the construction-site shall be restricted from muddy areas. 1. Removal—the entrance shall remain in place until the disturbed area is stabilized or replaced with a permanent
  - madway or entrance.

CONSTRUCTION ENTRANCE



DETERMINED BY CONTRACTOR

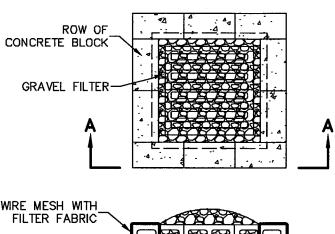
1.) THE CONCRETE WASH WATER CONTAINMENT SUMP SHALL BE EXCAVATED AND LINED PRIOR TO THE SCHEDULING OF ANY CONCRETE DELIVERIES TO THE SITE.

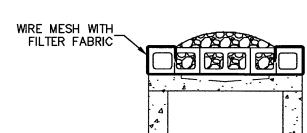
- 2.) THE CAPACITY OF THE SUMP SHALL BE DETERMINED BY THE CONTRACTOR AND BASED ON HIS ESTIMATE OF THE VOLUME OF WASH WATER REQUIRED BY THE PROJECT AND THE FREQUENCY OF EMPTYING THE SUMP.
- 3.) CONCRETE WASH WATER SHALL NOT BE ALLOWED TO FLOW TO STREAMS, DITCHES, STORM DRAINS, OR ANY OTHER WATER

CONCRETE WASH WATER CONTAINMENT SUMP

SCALE: NONE

CWA



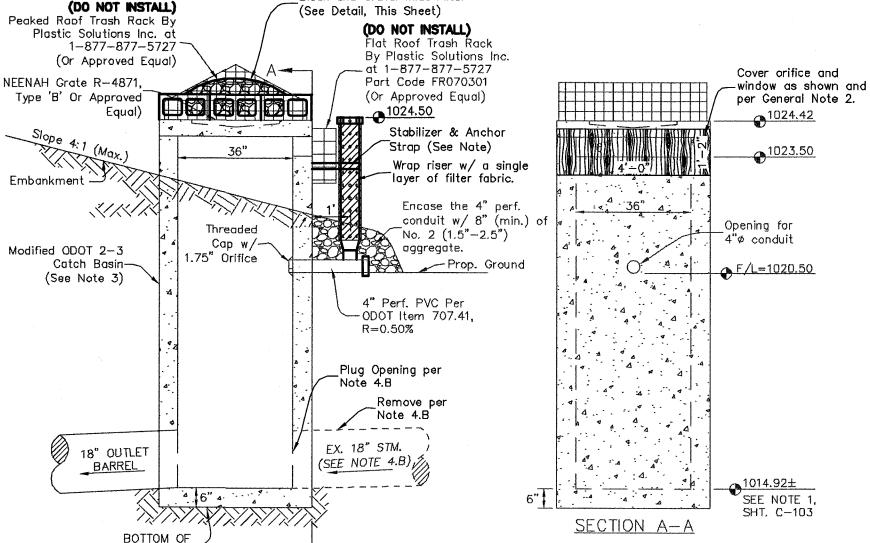


1.) PLACE 8"x8"x16" CONCRETE BLOCKS LENGTHWISE ON THEIR SIDES IN A SINGLE ROW AROUND THE PERIMETER OF THE INTLET, THE THE ENDS OF ADJACENT BLOCKS ABUTTING.

SECTION A-A

- 2.) WIRE MESH COVERED WITH A LAYER OF FILTER FABRIC SHALL BE PLACED OVER THE TOP GRATE, UNDER THE CONCRETE BLOCK, WRAP AROUND THE OUTSIDE FACE OF BLOCK AND END HALF WAY DOWN THE INSIDE FACE OF BLOCK. HARDWARE CLOTH OR COMPARABLE WIRE MESH WITH 1/2 INCH OPENINGS SHOULD BE USED.
- 3.) THE WIRE MESH AND FILTER FABRIC SHALL BE COVERED WITH TWO INCH STONE AS SHOWN ABOVE.
- 4.) IF THE STONE FILTER BECOMES CLOGGED WITH SEDIMENT SO THAT IT NO LONGER ADEQUATELY PERFORMS ITS FUNCTION, REMOVE THE CONCRETE BLOCK AND STONE, CLEAN AND REPLACE.

SWM CONTROL STRUCTURE BLOCK AND GRAVEL INLET FILTER DETAIL



Block and Gravel Inlet Filter

#### STRUCTURE **GENERAL NOTES:**

REPRESENTED ABOVE.

- 1.) FOLLOWING ARE MODIFICATIONS THAT ARE REQUIRED TO THE SWM BASIN'S CONTROL STRUCTURE IN ORDER TO CONVERT THE BASIN INTO A SEDIMENT BASIN.
- A.) NON-INSTALL THE TOP AND FRONT TRASH RACKS.
- B.) INSTALL THE BLOCK AND GRAVEL INLET FILTER.
- C.) PLUG THE FRONT WINDOW AS REPRESENTED ABOVE AND PER THE FOLLOWING D.) NON-INSTALL THE 4" PVC CONDUIT AND INSTALL THE RISER PIPE AS
- 2.) COVER THE WINDOW AS SHOWN WITH EXTERIOR GRADE 3/4" PLYWOOD. PLYWOOD SHALL BE STRAPPED TO THE CATCH BASIN WITH SCREWS HOLDING THE STRAP TO THE PLYWOOD. OTHER MEANS OF SECURING THE PLYWOOD SHALL BE APPROVED BY THE PROJECT ENGINEER.
- 3.) DO NOT CONSTRUCT THE MICROPOOL WHILE THE BASIN IS BEING USED AS A SEDIMENT BASIN.
- 4.) ONCE THE SEDIMENT BASIN IS NO LONGER NEEDED AND APPROVAL FROM STARK COUNTY'S SOIL AND WATER CONSERVATION DISTRICT TO REMOVE THE SEDIMENT BASIN IS ACQUIRED, THE CONTRACTOR SHALL THEN BE RESPONSIBLE IN REMOVING THE ACCUMULATED SEDIMENT AND CONVERTING THE BASIN INTO THE PERMANENT SWM BASIN. IN DOING SO, THE FOLLOWING ARE ITEMS THAT SHALL BE PERFORMED: SHALL BE ROT RESISTANT.
- A.) DEWATER THE BASIN BY A METHOD APPROVED BY STARK COUNTY'S SOIL AND WATER CONSERVATION DISTRICT.
- B.) REMOVE SEDIMENT, CONSTRUCT THE MICROPOOL AND GRADE THE BASIN TO THE ELEVATIONS REPRESENTED ON THE SWM BASIN & DETAILS PLAN. - WHEN CONSTRUCTING THE MICROPOOL, THE EXISTING 18" STORM SEWER WILL BE EXPOSED. REMOVE THE 18" STORM SEWER THAT IS IN CONFLICT WITH THE MICROPOOL, PLUG OR SEAL THE END OF THE 18" STORM THAT IS BEING ABANDONED AND PLUG OR SEAL THE 18" OPENING IN THE CONTROL STRUCTURE. PERFORM PLUGGING BY USING ODOT APPROVED PRECAST STOPPERS. PERFORM SEALING BY USING MASONRY BULKHEADS
- C.) REMOVE THE RISER PIPE AND THE PLUGS OVER THE PROPOSED INLETS. D.) EXTEND THE 4" PVC CONDUIT AS REPRESENTED ON THE IMPROVEMENT
- E.) INSTALL THE TOP AND FRONT TRASH RACKS.

—Cap with a 2.0"ø hole drilled in the top. 3" (Min.) 1" inlet holes shall be equally — spaced around the circumference of the conduit with 6 holes per 6" Schedule 40 PVC Conduit PERFORATED RISER Not to Scale

# STABILIZER AND ANCHOR STRAP:

SECURELY FASTEN THE RISER PIPE TO THE BASIN IN THE VERTICAL POSITION USING A STABILIZER AND ANCHOR STRAP THAT CONSISTS OF A UNIVERSAL CLAMP OR A STRAP AND A BLOCK. ALL METAL COMPONENTS SHALL BE GALVANIZED OR STAINLESS STEEL. ALL OTHER MATERIALS

SEDIMENT BASIN DESIGN DATA				
SEDIMENT STORAGE				
DISTURBED AREA DRAINING INTO TRAP	6.9 Ac.			
SEDIMENT VOLUME REQUIRED	6,900 C.F.			
SEDIMENT VOLUME PROVIDED	7,928 C.F.			
SEDIMENT CLEANOUT ELEVATION	1022.00			
DEWATERING ZONE				
CONTRIBUTING DRAINAGE AREA INTO TRAP	9.0 Ac.			
DEWATERING ZONE VOLUME REQ.	16,281 C.F.			
DEWATERING ZONE VOLUME PROV.	36,550 C.F.			
SEDIMENT TRAPPING EFFICIENCY	81%			

SWM CONTROL STRUCTURE DETAIL - "DO"
TEMPORARY MODIFICATIONS