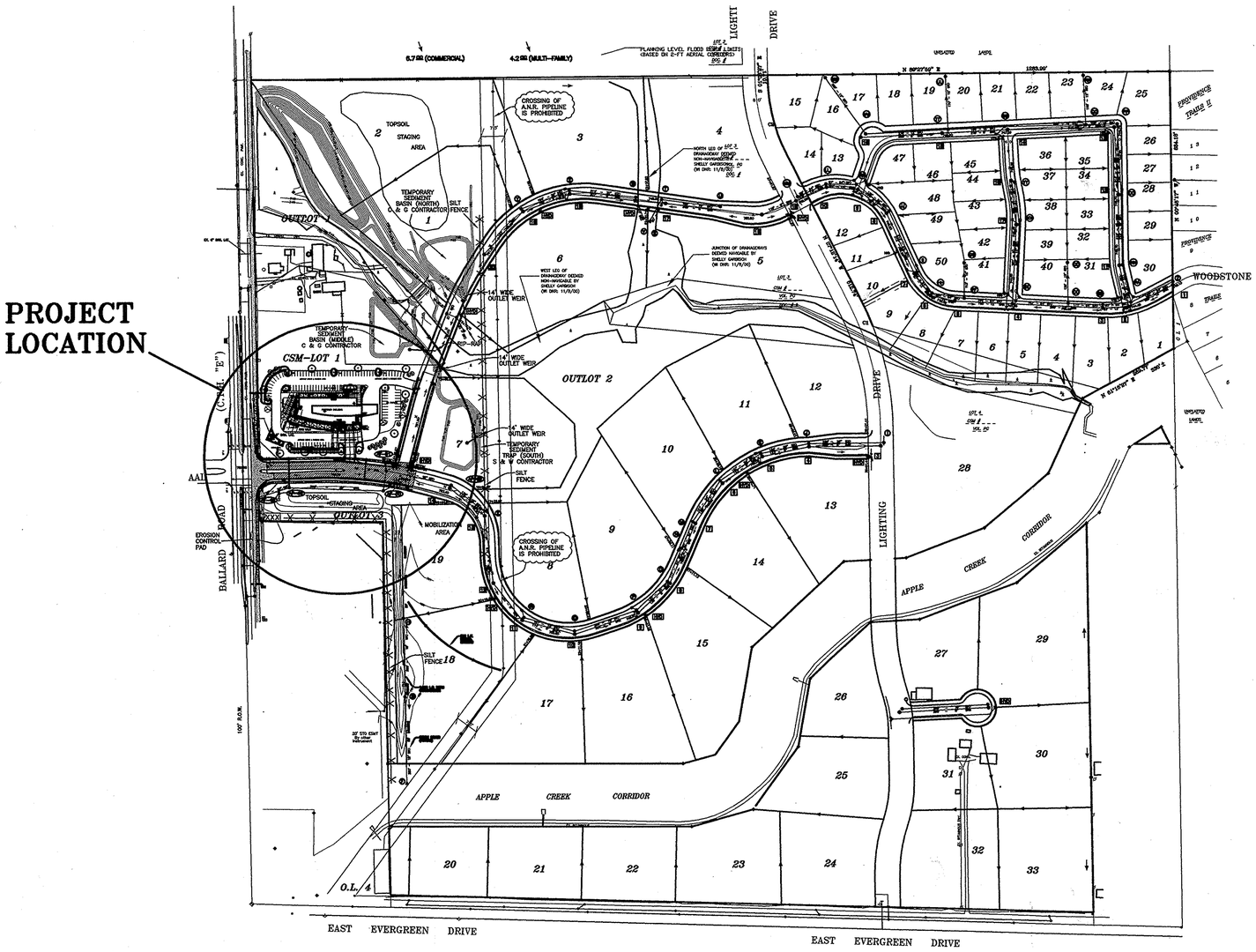
AAL BUSINESS PARK



BENCHMARKS:

CHISELED X ON EAST SIDE OF BALLARD ROAD, 2.5' EAST OF WEST EDGE OF CONC. SIDEWALK, 37' NORTH OF P.P. AND 150' NORTH OF A.A.L.'S BALLARD ROAD ENTRANCE.....753.42 USGS

CHISELED "X" ON THE EAST SIDE OF BALLARD ROAD, 3' EAST OF WEST EDGE OF CONC. SIDEWALK, AND 89' SOUTH OF P.P.....754.69 USGS

TOP OF HYDRANT BELOW NUT @ NW CORNER LOT 5, 720' SOUTH OF CENTER OF SECTION 7.....757.52 USGS

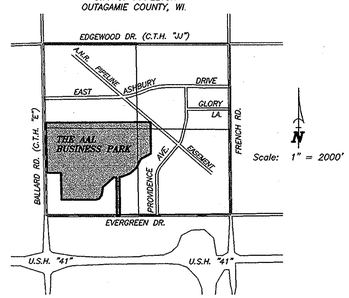
TOP OF HYDRANT @ NW CORNER INT, 300' EAST & 70' NORTH OF CENTER OF SECTION 7.....759.51 USGS

GENERAL NOTES

1. THE WATER MAIN SHALL BE CONSTRUCTED IN ACCORDANCE WITH THE CITY OF APPLETON'S STANDARD SPECIFICATIONS FOR SEWER CONSTRUCTION. D.N.R. APPROVAL NO. 99-0034.
2. THE LOCATION OF EXISTING UTILITIES FACILITIES AS SHOWN ON THE PLAN ARE APPROXIMATE. THERE MAY BE OTHER UTILITIES WITHIN THE PROJECT AREA THAT ARE NOT SHOWN. THE CONTRACTOR SHALL HAVE ALL FACILITIES LOCATED PRIOR TO CONSTRUCTION. THE CONTRACTOR SHALL NOTIFY THE ENGINEER IMMEDIATELY IF A CONFLICT WITH THE WORK IS DISCOVERED.

LOCATION MAP

SECTION 7, T 21 N, R 18 E
CITY OF APPLETON
OUTAGAMIE COUNTY, WI.



INDEX OF SHEETS

Martenson & Eisele, Inc.
Engineering - Surveying - Planning - Architecture
1919 American Court
Neenah, WI 54956
(920) 731-0381
FAX (920) 733-8578
E-MAIL mail@martenson-eisele.com

NO.	DATE	REVISION	CHECKED	APPROVED

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AAL BUSINESS PARK
PROJECT COVER SHEET
CITY OF APPLETON, OUTAGAMIE COUNTY, WISCONSIN

FIELD BK | PAGE
SCALE | DATE 3/21/01
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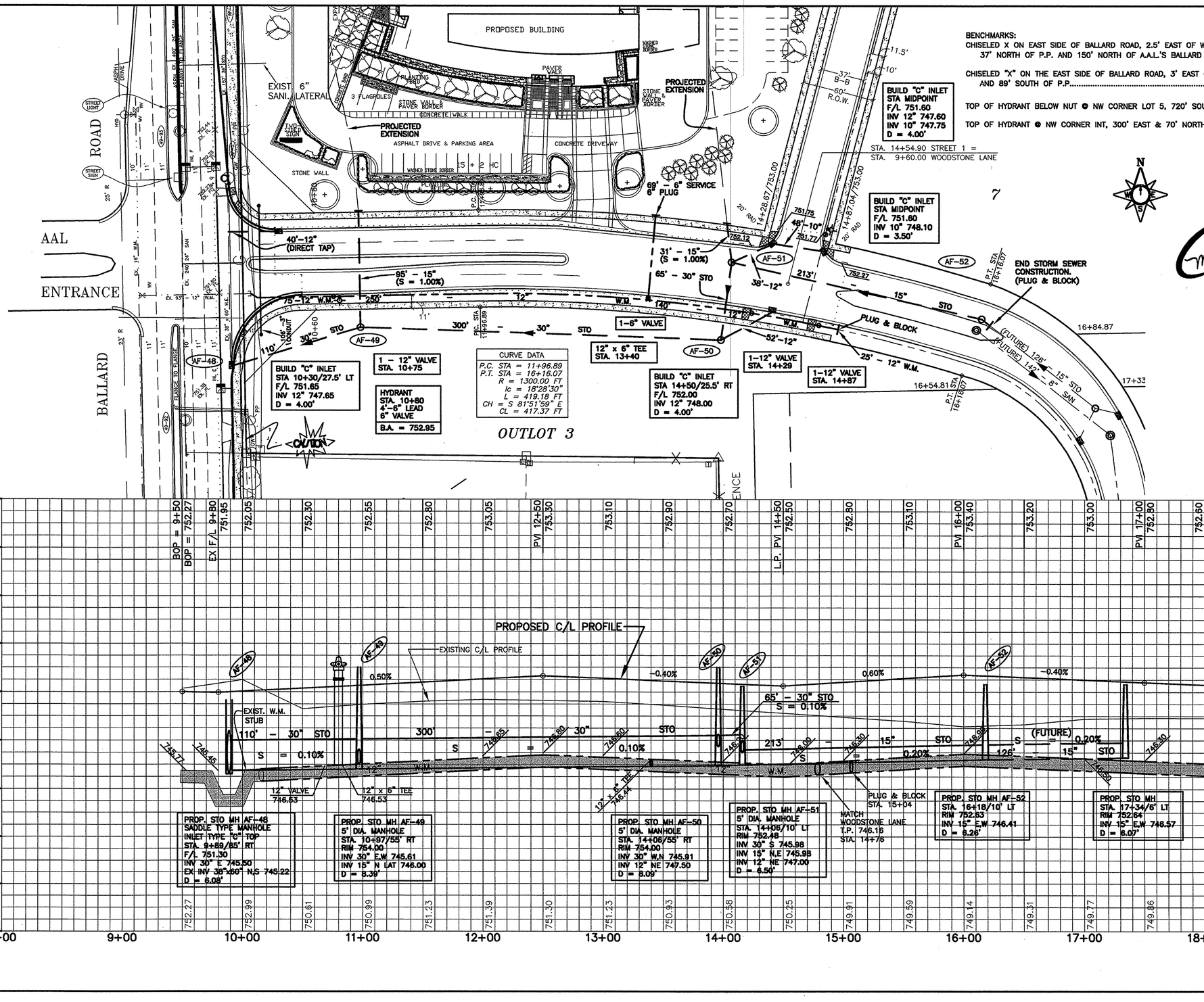

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T.C. = TOP OF COPPER
C.B. = FINISH CURB BOX ELEVATION
B.A. = HYDRANT BREAK AWAY ELEVATION

NOTE:
1. USE MEGA-LUG FITTINGS FOR ALL MECHANICAL WATERMAIN JOINTS.

BEFORE CONSTRUCTION THE CONTRACTOR SHALL HAVE THE UTILITIES AND LATERALS LOCATED BY THE UTILITY COMPANIES.

HORIZONTAL SCALE 40 20 0 40 80
VERTICAL SCALE 4 2 0 4 8

ESTIMATE OF QUANTITIES

STORM SEWER
1. 478 L.F. 30" RCP STORM MAIN
2. 217 L.F. 15" PVC STORM MAIN
3. 6.08 V.F. BOX MANHOLE W/INLET TOP (1)
4. 22.98 V.F. 5' DIA. MANHOLE (3)
5. 6.26 V.F. STANDARD MANHOLE (1)
6. 164 L.F. 15" PVC SERVICE LAT (2)
7. 4 EA. TYPE "C" INLET W/CASTING
8. 130 L.F. 12" INLET LEAD
9. 48 L.F. 10" INLET LEAD

WATER MAIN
1. 490 L.F. 12" PVC WATER MAIN
2. 1 EA. SUPPLY & INSTALL HYDRANT
3. 3 EA. 12" VALVE W/ BOX
4. 1 EA. 6" VALVE W/BOX
5. 69 L.F. 6" SERVICE

SANITARY	LATERALS	GAS	TELEPHONE
STORM	WATER	ELECTRIC	REVISIONS --/--/--

CITY OF APPLETON, WIS.
ENGINEERING DIVISION

SEWER & WATER IN MILESTONE DRIVE

BALLARD ROAD TO STA. 15+00

CRC CKD: JWS
DATE: 03/21/01 APP'D:
SCALE: 1"=40' HOR. 1"=4' VERT.

DRG. NO. 1/4 SEC. V45 605-000

PAGE NO. 2

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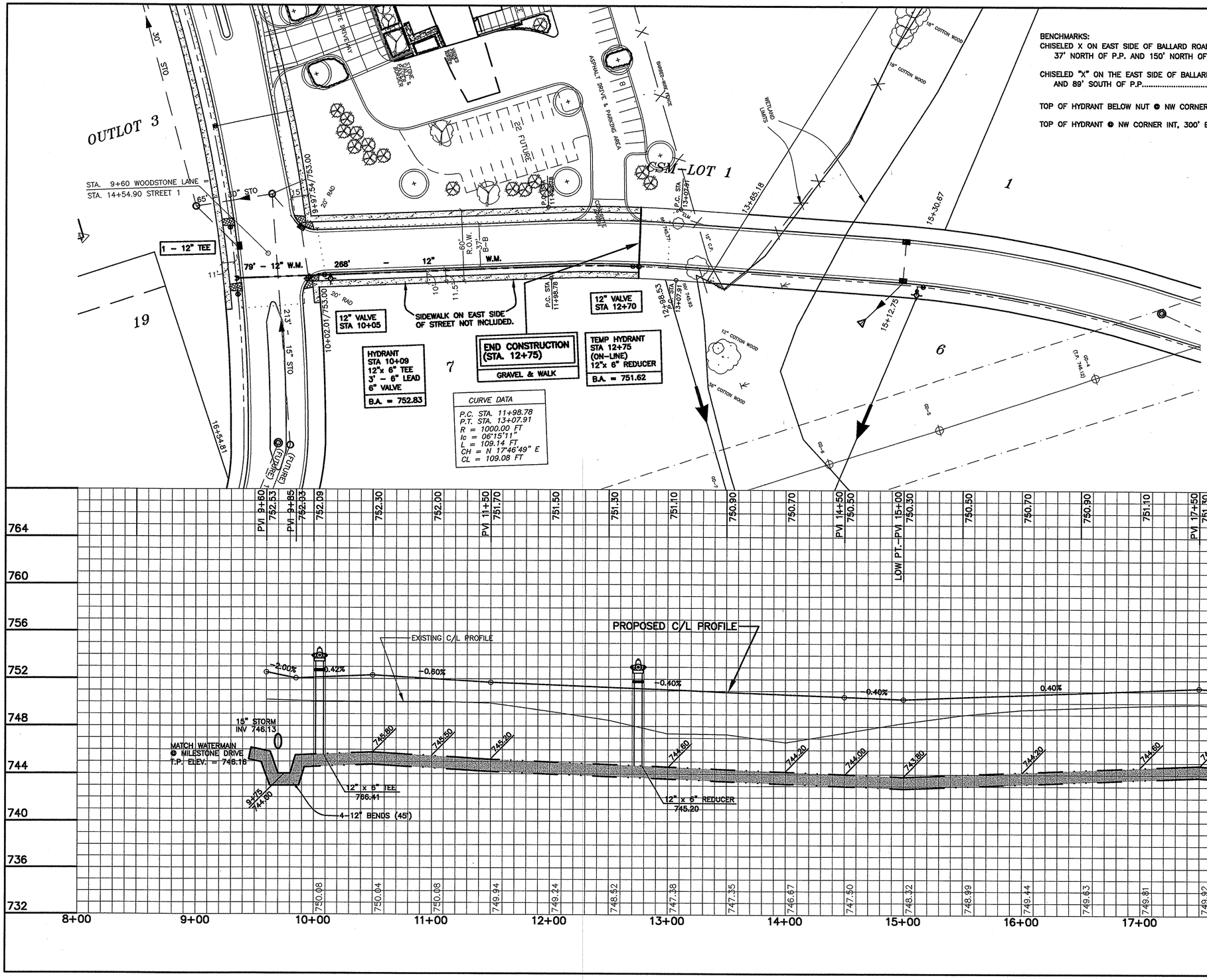

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SCALES:
1" = 40' HOR
1" = 4' VER

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NOTE:
1. USE MEGA-LUG FITTINGS FOR ALL MECHANICAL WATERMAIN JOINTS.

BEFORE CONSTRUCTION THE CONTRACTOR SHALL HAVE THE UTILITIES AND LATERALS LOCATED BY THE UTILITY COMPANIES.

HORIZONTAL SCALE
40 20 0 40 80
VERTICAL SCALE
4 2 0 4 8

ESTIMATE OF QUANTITIES

WATER MAIN
1. 347 L.F. 12" PVC WATER MAIN
2. 2 EA. INSTALL HYDRANT
3. 2 EA. 12" VALVE W/ BOX

SANITARY	LATERALS	GAS	TELEPHONE
STORM	WATER	ELECTRIC	REVISIONS --/--/--

CITY OF APPLETON, WIS.
ENGINEERING DIVISION

SEWER & WATER IN WOODSTONE LANE

MILESTONE DRIVE TO STA. 14+00

DWN: CRC CKD: JWS
DATE: 03/13/01 APP'D:
SCALE: 1"=40' HOR. 1"=4' VERT.

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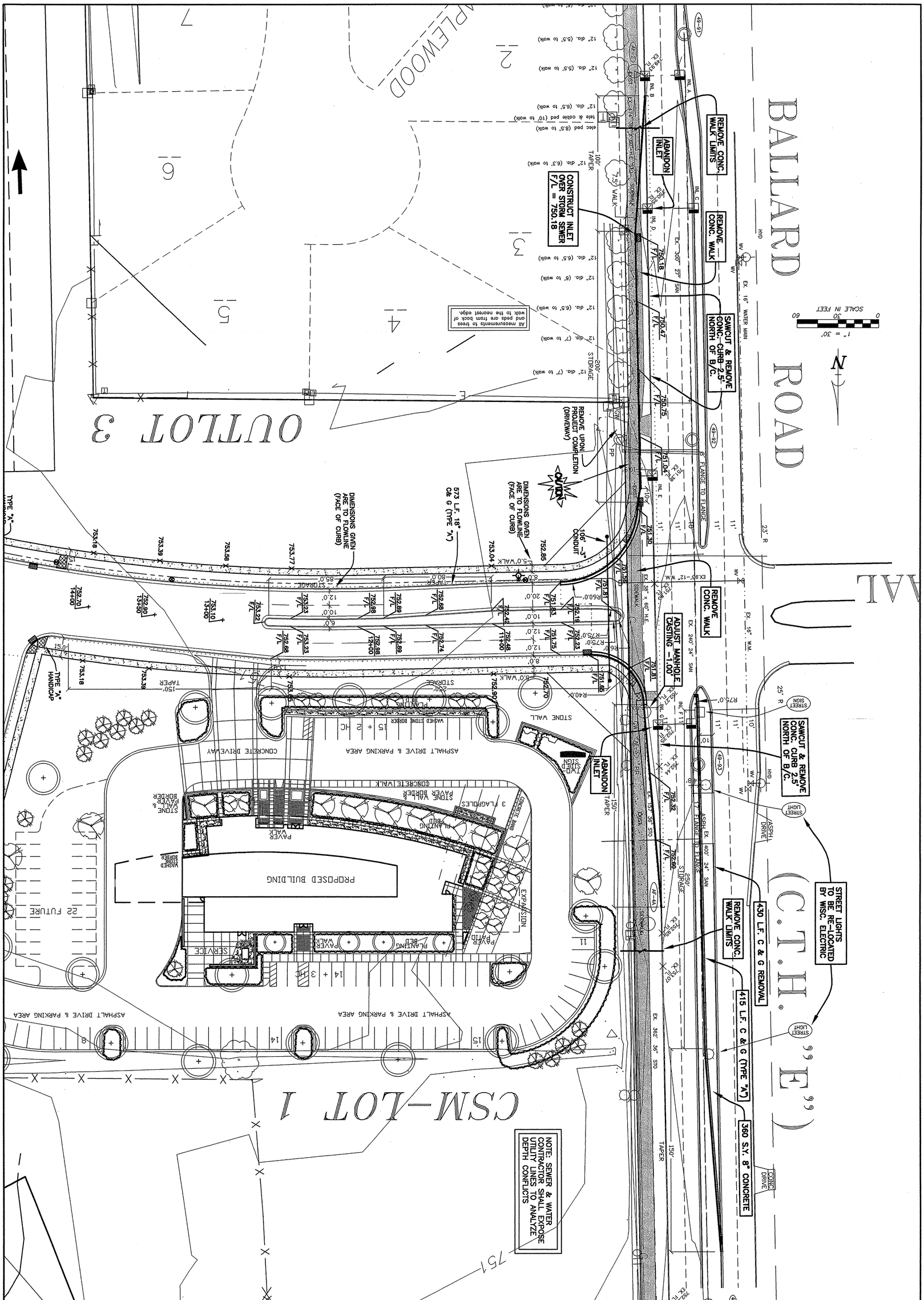

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AAL BUSINESS PARK

BALLARD ROAD: RE-CONFIGURATION

CITY OF APPLETON, OUTAGAMIE COUNTY, WISCONSIN

DRAWN BY	CHECKED	APPROVED
CRC		

NO.	DATE	REVISION
1	4/05/01	SIDEWALK & CONDUIT

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CRC		

NO.	DATE	REVISION

AAL BUSINESS PARK

ENTRANCE & BUFFER BERM PLAN

CITY OF APPLETON, OUTAGAMIE COUNTY, WISCONSIN

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1" = 50'	03/21/01

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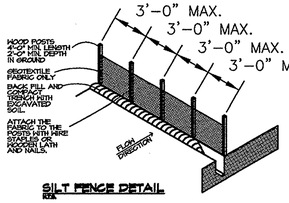
EROSION CONTROL PLAN



SILT FENCE DETAIL
NTS

NOTES:

TRENCH SHALL BE A MINIMUM OF 4" WIDE AND 6" DEEP TO BURY AND ANCHOR THE GEOTEXTILE FABRIC. FOLD MATERIAL TO FIT TRENCH AND BACK FILL & COMPACT TRENCH WITH EXCAVATED SOIL.

WOOD POSTS SHALL BE A MINIMUM SIZE OF 1 1/8" X 1 1/8" OAK OR HICKORY.

AAL BUSINESS PARK - SEDIMENT TRAP SUMMARY

South Sediment Trap - S & W Contractor

Outlet elevation = 748.0
Top of berm elevation = 750.0
Bottom elevation of permanent wet pool = 746.0. Minimum water surface area shall be 3750 ft²
Top of rock elevation at outlet = 749.0 (elev. to be adjusted to 749.5 by G&G Contractor)
Length of rock weir outlet = 14 feet
Top width of berm = 4 feet
Berm side slope = 2:1
* Temporary berm to be constructed connecting to elevation 749.2 as shown on plan.
* Approx. 140 yds³ excavation in permanent wet pool needed for 450 feet of berm. Size permanent wet pool as needed to attain needed fill for berm construction.

Middle Sediment Trap - G & G Contractor

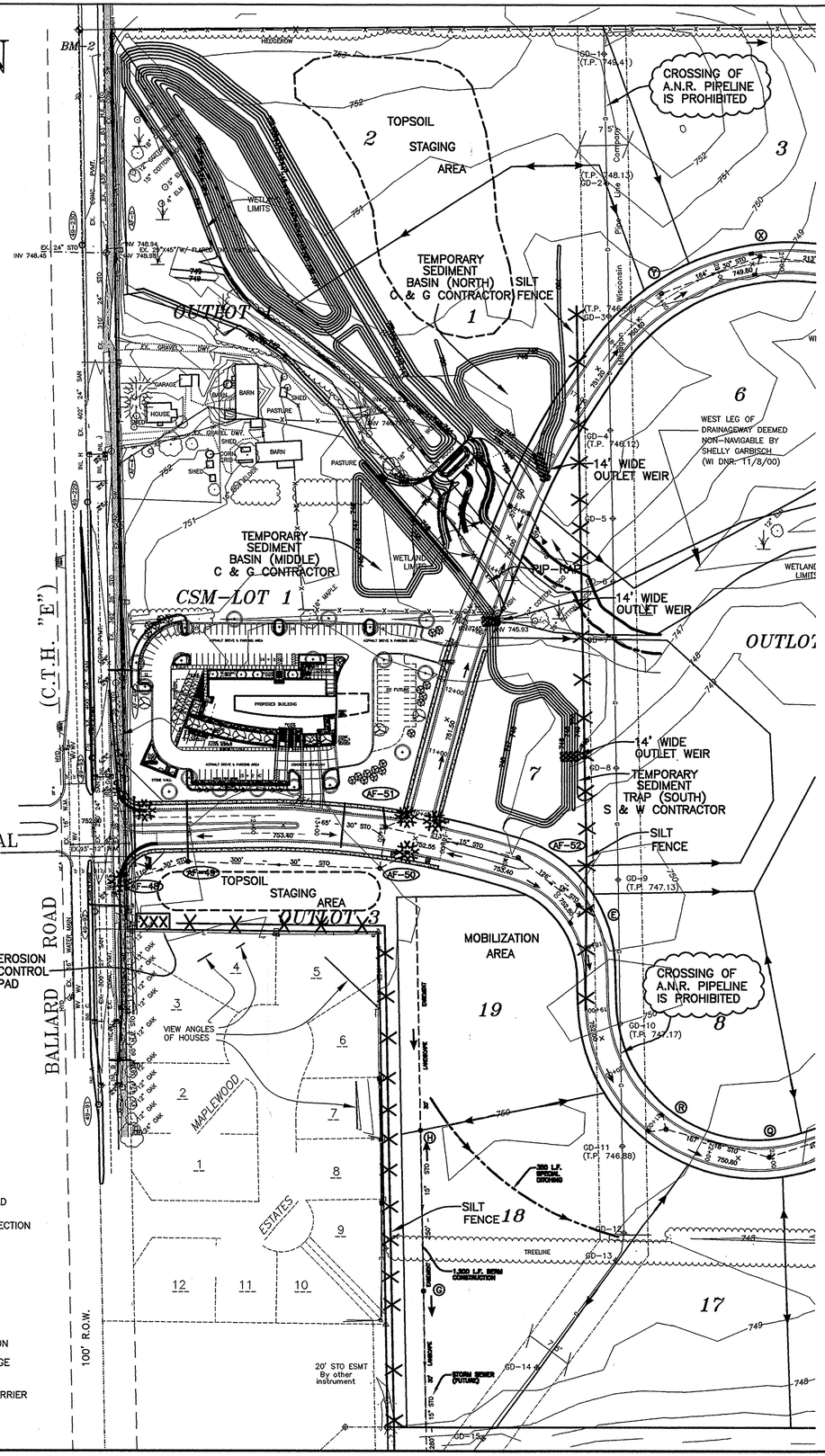
Outlet elevation = 747.0
Top of berm elevation = 750.0
Bottom elevation of permanent wet pool = 745.0. Minimum water surface area shall be 3750 ft²
Top of rock elevation at outlet = 749.5
Length of rock weir outlet = 14 feet
Top width of berm = 4 feet
Berm side slope = 2:1
* Approx. 300 yds³ excavation in permanent wet pool needed for 600 feet of berm. Size permanent wet pool as needed to attain needed fill for berm construction.

North Sediment Trap - G & G Contractor

Outlet elevation = 748.0
Top of berm elevation = 750.0
Bottom elevation of permanent wet pool = 746.0. Minimum water surface area shall be 5000 ft²
Top of rock elevation at outlet = 749.5
Length of rock weir outlet = 14 feet
Top width of berm = 4 feet
Berm side slope = 2:1
* Approx. 300 yds³ excavation in permanent wet pool needed for 930 feet of berm. Size permanent wet pool as needed to attain needed fill for berm construction.

General Notes For Sediment Trap Construction

* Strip topsoil from under the planned berm.
* Immediately topsoil, seed, and mulch the sediment trap berm and other areas outside the permanent wet pool that were disturbed during sediment trap construction.
* Weir outlets shall consist of 9 inch average stone with a maximum stone size of 14 inches. The upstream side shall be covered with 1 foot of 1 to 2 inch clean crushed stone. The stone shall be placed over geotextile filter fabric to prevent undercutting below the stone. Place stone so that the center of the weir is 6 inches lower than the edges.
* Stabilize the channel on the downstream side of the weir outlet with 9 inch average stone for a minimum of 5 feet to prevent scour. The permanent wet pool shall have a minimum length to width ratio of 2:1 with a minimum side slope of 2:1.



LEGEND

- SILT FENCE
- EROSION CONTROL PAD
- INLET: EROSION PROTECTION
- STORM CATCH BASIN
- STORM MANHOLE
- INLET OR YARD DRAIN
- PROPOSED ELEVATION
- EXISTING ELEVATION
- F.F.=784.5 FIRST FLOOR ELEVATION
- DIRECTION OF DRAINAGE
- EXISTING CONTOUR
- EROSION CONTROL BARRIER

TOPOGRAPHIC LEGEND

- 1" x 24" IRON PIPE SET
- 1-1/4" x 30" REBAR SET
- CHISELED "X" SET
- 3/4" REBAR FOUND
- 1" IRON PIPE FOUND
- 1-1/4" REBAR FOUND
- 2" IRON PIPE FOUND
- CHISELED "X" FOUND
- GOVERNMENT CORNER
- CONTOUR W/ ELEVATION
- SOIL BORING
- CONIFEROUS TREE
- DECIDUOUS TREE
- EXIST. WOODS LINE
- WETLANDS
- OVERHEAD POWER LINES
- UNDERGROUND ELECTRIC
- UNDERGROUND TELEPHONE
- UNDERGROUND GAS
- UNDERGROUND CABLE TV
- EXIST. FENCE LINE
- EXIST. HYDRANT
- POWER POLE
- GUY
- LIGHT POLE
- TELEPHONE PEDESTAL
- ELECTRIC PEDESTAL
- GAS VALVE
- WATER VALVE
- WATER STOP BOX
- EXIST STORM MANHOLE
- STORM INLET
- YARD DRAIN
- EXIST SANITARY MANHOLE
- EXIST. SAN. SEWER
- EXIST. STO. SEWER
- EXIST. WATER MAIN
- EXIST. SPOT ELEVATION
- FIRST FLOOR = 800.00
- TOPSOIL DEPTH

EROSION CONTROL NOTES

1. THE CONTRACTOR SHALL INSTALL SILT FENCE OR HAY BALE EROSION BARRIERS AROUND THE PERIMETER OF THE PROJECT AS SHOWN ON THIS PLAN PRIOR TO ANY CONSTRUCTION INCLUDING STRIPPING TOPSOIL.
2. ALL EROSION CONTROL DEVICES SHALL BE MAINTAINED BY THE CONTRACTOR UNTIL THE COMPLETION OF HIS CONTRACT.
3. THE CONTRACTOR SHALL MAINTAIN SAID EROSION CONTROL DEVICES UNTIL THE COMPLETION OF HIS CONTRACT AND SHALL NOT REMOVE THE EROSION CONTROL DEVICES UNTIL VEGETATION IS ESTABLISHED.
4. THE GRADING CONTRACTOR SHALL SEED AND MULCH ALL DISTURBED AREAS IMMEDIATELY WHEN FINAL GRADE IS ESTABLISHED. SEED MIXTURE SHALL BE ACCORDING TO THE SPECIFICATIONS.
5. THE CONTRACTORS SHALL PREVENT TRACKING ON EXISTING STREETS. ANY SEDIMENT TRACKED ONTO EXISTING STREETS SHALL BE CLEANED UP DAILY.
6. INSTALLATION AND MAINTENANCE OF EROSION CONTROL SHALL BE DONE IN ACCORDANCE WITH THE SPECIFICATIONS.
7. FILTER BAGS FILLED WITH 1 INCH CRUSHED STONE MAY ALSO BE USED IN PLACE OF GEOTEXTILE FABRIC. APPROPRIATE TRAFFIC BARRICADES SHALL BE USED FOR VEHICLE SAFETY AND TO MAINTAIN THE INTEGRITY OF EROSION CONTROL MEASURES.
8. STREET TERRACE SHALL BE SEEDED/MULCHED WITHIN 10 DAYS OF COMPLETION.
9. SILT FENCES DAMAGED DURING LATERAL CONSTRUCTION SHALL BE REPAIRED AS SOON AS WORK IS COMPLETE IN THAT AREA.

N

1" = 100'
0 100 200
SCALE IN FEET

GENERAL NOTES:

1. SITE DEWATERING. WATER PUMPED FROM THE SITE SHALL BE TREATED BY TEMPORARY SEDIMENTATION BASINS OR OTHER APPROPRIATE CONTROLS DESIGNED FOR THE HIGHEST DEWATERING PUMPING RATE. WATER MAY NOT BE DISCHARGED IN A MANNER THAT CAUSES EROSION OF THE SITE OR RECEIVING CHANNELS. (NOT ANTICIPATED)
2. WASTE AND MATERIAL DISPOSAL. ALL WASTE AND UNUSED BUILDING MATERIALS (INCLUDING GARBAGE, DEBRIS, CLEANING WASTES, WASTEWATER, TOXIC MATERIALS OR HAZARDOUS MATERIALS) SHALL BE PROPERLY DISPOSED OF AND NOT ALLOWED TO BE CARRIED BY RUNOFF INTO A RECEIVING CHANNEL OR STORM SEWER SYSTEM.
3. TRACKING. THIS SITE SHALL STABILIZE THE EXISTING DRIVE WITH A MINIMUM 6 INCH DEPTH OF 2 TO 3 INCH AGGREGATE SUFFICIENT TO PREVENT SEDIMENT FROM BEING TRACKED ONTO PUBLIC OR PRIVATE ROAD WAYS AS APPROVED BY THE DIRECTOR. ANY SEDIMENT REACHING A PUBLIC OR PRIVATE ROAD SHALL BE REMOVED BEFORE THE END OF EACH WORK DAY. FLUSHING MAY NOT BE USED UNLESS THE SEDIMENT WILL BE CONTROLLED BY A FILTER FABRIC BARRIER, SEDIMENT BASIN OR EQUIVALENT.
4. DRAIN INLET PROTECTION. ALL ON-SITE STORM DRAIN INLETS AND THE IMPACTED DOWNSTREAM INLETS SHALL BE PROTECTED WITH THE DANDY BAG CONFIGURATION.
5. SEDIMENT CLEANUP. ALL OFF-SITE SEDIMENT DEPOSITS OCCURRING AS A RESULT OF A STORM EVENT SHALL BE CLEANED UP BY THE END OF THE NEXT WORK DAY. ALL OTHER OFF-SITE SEDIMENT DEPOSITS OCCURRING AS A RESULT OF LAND DISTURBING ACTIVITIES SHALL BE CLEANED UP BY THE END OF THE WORK DAY.
6. DISTURBANCE TIMING. ALL ACTIVITIES ON THE SITE SHALL BE CONDUCTED IN A LOGICAL SEQUENCE TO MINIMIZE THE AREA OF BARE SOIL EXPOSED AT ANY ONE TIME. EXISTING VEGETATION SHALL BE MAINTAINED AS LONG AS POSSIBLE.

CONTRACTOR RESPONSIBILITIES:

1. NOTIFY THE DIRECTOR WITHIN 48 HOURS OF COMMENCING ANY LAND DISTURBING OR LAND DEVELOPMENT ACTIVITY;
2. NOTIFY THE DIRECTOR OF COMPLETION OF ANY EROSION CONTROL MEASURES WITHIN 3 DAYS AFTER COMPLETION;
3. OBTAIN PERMISSION IN WRITING FROM THE DIRECTOR PRIOR TO MODIFYING THE EROSION CONTROL PLAN.
4. INSTALL ALL EROSION CONTROL MEASURES AS IDENTIFIED IN THE APPROVED EROSION CONTROL PLAN;
5. REPAIR ANY SILTATION OR EROSION DAMAGE TO ADJOINING SURFACES AND DRAINAGE WAYS RESULTING FROM LAND DEVELOPING OR DISTURBING ACTIVITIES;
6. MAINTAIN ALL ON- AND OFF- SITE STORM WATER DRAINAGE SYSTEMS AS IDENTIFIED ON THE EROSION CONTROL PLAN.
7. REPAIR ANY EROSION CONTROL SYSTEM INSTALLED IN ACCORDANCE TO THE EROSION CONTROL PLAN.
8. INSPECT THE CONSTRUCTED EROSION CONTROL MEASURES AFTER EACH RAIN OF 0.5 INCHES OR MORE AND AT LEAST ONCE EACH WEEK AND MAKE NEEDED REPAIRS.
9. ALLOW THE DIRECTOR TO ENTER THE SITE FOR THE PURPOSE OF INSPECTING COMPLIANCE WITH THE EROSION CONTROL PLAN OR FOR PERFORMING ANY WORK NECESSARY TO BRING THE SITE INTO COMPLIANCE WITH THE EROSION CONTROL PLAN.
10. KEEP A COPY OF THE APPROVED EROSION CONTROL PLAN ON THE SITE.
11. SEED/FERT/MULCH SHALL BE PERFORMED PER CITY OF APPLETON REQUIREMENT.
12. GRADING CONTRACTOR SHALL MAINTAIN EROSION CONTROL UNTIL TERMINATION NOTICE IS ISSUED. THE CITY MAY WITHHOLD AUTHORIZATION OF PAYMENT FOR UP TO 20% OF EROSION CONTROL PRACTICES UNTIL OCTOBER 1, 2000.
13. ALL DISTURBED AREAS SHALL BE RESTORED WITHIN 10 DAYS OF COMPLETION OF WORK WITHIN THESE AREAS. THIS INCLUDES SOIL STOCKPILES, WHICH SHALL BE STABILIZED BY MULCHING, TEMPORARY SEEDING, SODDING OR COVERING W/ TARPS.
14. GRADE & GRAVEL CONTRACTOR IS RESPONSIBLE FOR REMOVING ALL DEVICES AFTER SITE STABILIZATION

CONSTRUCTION SEQUENCE

1. INSTALLATION OF SILT FENCE.
2. STRIPPING OF TOPSOIL (ROAD RIGHT-OF-WAYS).
3. SEWER & WATER CONSTRUCTION.
4. CONSTRUCTION OF TEMPORARY STORM WATER DIVERSION DITCH.
5. TOPSOIL STRIPPING FOR THE POND.
6. EXCAVATION OF THE POND.
A. DELIVERY OF CLAY TO BANK FACILITY.
B. DELIVERY OF CLAY TO MILESTONE DRIVE AND WOODSTONE LANE.
C. DELIVERY OF CLAY TO LIGHTNING DRIVE.
7. FINE GRADING & RESTORATION OF POND.
8. CONSTRUCTION OF MILESTONE DRIVE AND WOODSTONE LANE.
9. CONSTRUCTION OF BALLARD RE-CONFIGURATION.
10. UTILITY INSTALLATION.
11. STABILIZATION OF ALL DISTURBED AREAS.

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NO.	DATE	REVISION	CHECKED	APPROVED
1	4/06/01	SEDIMENT TRAPS & POND		

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AAL BUSINESS PARK

EROSION CONTROL PLAN

CITY OF APPLETON, OUTAGAMIE COUNTY, WISCONSIN

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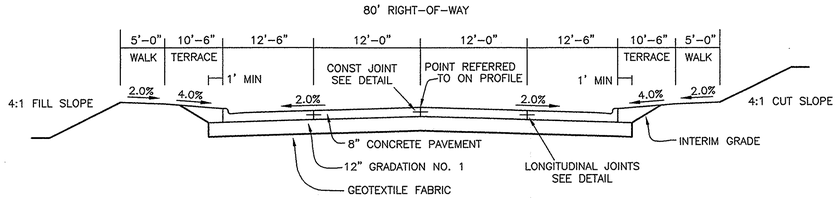
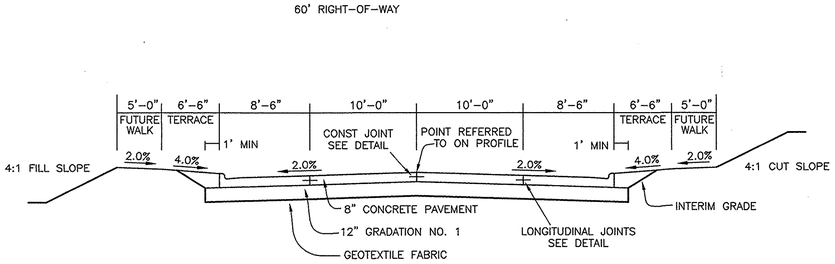


NOTE:
ALL PAVEMENT SHALL BE INTEGRAL CURB UNLESS OTHERWISE NOTED.

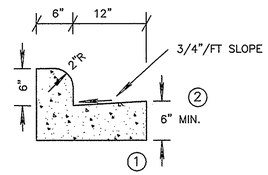
TYPICAL STREET CROSS SECTION
MILESTONE DRIVE

(NOT 49' B/B HOWEVER)



NOTE:
ALL PAVEMENT SHALL BE INTEGRAL CURB UNLESS OTHERWISE NOTED.

TYPICAL STREET CROSS SECTION
WOODSTONE LANE



TYPE A

CONCRETE CURB & GUTTER 18"

(18" ISLAND DETAIL)

N.T.S.

GENERAL NOTES

DETAILS OF CONSTRUCTION, MATERIALS AND WORKMANSHIP NOT SHOWN ON THIS DRAWING SHALL CONFORM TO THE PERTINENT REQUIREMENTS OF THE CONTRACT.

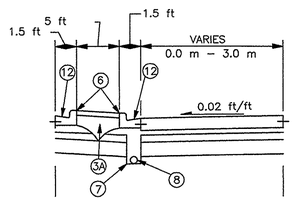
PAVEMENT TIES AND TIE BARS SHALL BE EPOXY COATED IN CONFORMANCE WITH SUBSECTION 505.2.6.2 OF THE STANDARD SPECIFICATIONS.

INTEGRAL CURB & GUTTER SHALL CONFORM TO THE DETAILS SHOWN FOR CONCRETE CURB & GUTTER INCLUDING THE TRANSVERSE GUTTER SLOPE. A LONGITUDINAL CONSTRUCTION JOINT IS NOT REQUIRED WITH INTEGRAL CURB & GUTTER.

WHERE THE TRANSVERSE JOINTS IN THE PAVEMENT ARE REQUIRED TO BE SEALED, THE JOINTS IN THE INTEGRAL CURB & GUTTER SHALL BE SEALED TO THE FACE OF CURB WITH THE SAME TYPE OF SEALANT. THE COST OF FURNISHING AND INSTALLING THIS SEALANT SHALL BE INCIDENTAL TO THE ITEM CONCRETE CURB & GUTTER.

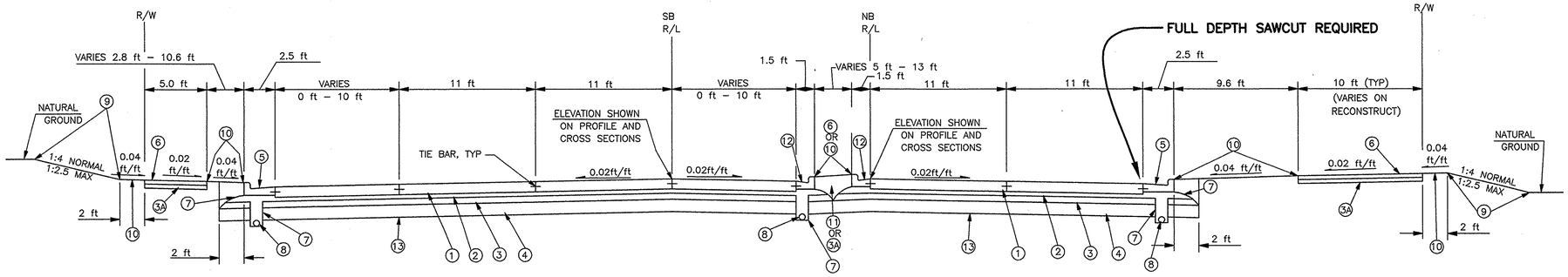
UNLESS OTHERWISE SHOWN ON THE TYPICAL CROSS SECTIONS, THE BASE COURSE AND UNCLASSIFIED EXCAVATION LIMITS ARE 2'-0" BEHIND THE BACK OF CURBS.

1. TIE BARS ARE REQUIRED FOR CURB AND GUTTER TYPES A, G AND K.
2. THE BOTTOM OF CURB AND GUTTER MAY BE CONSTRUCTED EITHER LEVEL OR PARALLEL TO THE SLOPE OF THE SUBGRADE OR BASE COURSE PROVIDED A 6" MINIMUM GUTTER THICKNESS IS MAINTAINED.



LEGEND

1. DOWELED NON-REINFORCED CONCRETE PAVEMENT. (8-1/2-inches)
2. CRUSHED AGGREGATE BASE COURSE, OPEN GRADED, NO. 2, (4-inches)
3. CRUSHED AGGREGATE BASE COURSE, (6-inches)
3A. CRUSHED AGGREGATE BASE COURSE, (4-inches) (TO BE USED UNDER CONCRETE SIDEWALK)
4. BREAKER RUN, (12-inches) (OR AS DIRECTED BY THE ENGINEER)
5. CONCRETE CURB AND GUTTER, 750 mm (30-INCH), TYPE A
6. CONCRETE SIDEWALK, (4-inches)
7. GEOTEXTILE FABRIC, TYPE DF, SCHEDULE A
8. PIPE UNDERDRAIN, (6-inches)
9. TOPSOIL, FERTILIZE, SEED AND MULCH
10. TOPSOIL, FERTILIZE, AND SOD
11. BACKFILL WITH UNCLASSIFIED
12. CONCRETE CURB AND GUTTER, 450 mm (18-INCH), TYPE A
13. GEOTEXTILE FABRIC, TYPE SAS



TYPICAL FINISHED SECTION FOR CTH E (N. BALLARD RD)

Martenson & Eisele, Inc.
Engineering - Surveying - Planning - Architecture
1919 American Court
Neenah, WI 54956
(920) 731-0381
FAX (920) 733-8678
E-MAIL mail@martenson-eisele.com

NO.	DATE	REVISION	CHECKED JWS	APPROVED

DRAWN BY CRC

AAL BUSINESS PARK

STANDARD DETAIL SHEET

CITY OF APPLETON, OUTAGAMIE COUNTY, WISCONSIN

FIELD BK	PAGE
SCALE NONE	DATE 3/21/01
COMPUTER FILE 605000details.dwg	

DRAWING NO.
605-000-7

	ID	Northing	Easting	ELEV
G	1	177690.48	2425466.76	751.00
G	2	177676.88	2425481.66	747.00
G	3	177668.25	2425491.10	746.00
G	4	177620.95	2425542.99	737.00
G	5	177279.07	2425784.29	737.00
G	6	177257.45	2425802.44	744.00
G	7	177251.32	2425807.63	744.00
G	8	177245.20	2425812.82	742.00
G	9	177076.90	2425957.19	742.00
G	10	177065.26	2425968.18	746.00
G	11	177056.30	2425977.13	746.00
G	12	177052.06	2425981.37	744.00
G	13	177043.05	2425990.38	746.00
G	14	177037.74	2425995.69	747.00
G	15	177035.95	2425997.48	747.33
G	16	177163.14	2425955.42	751.00
G	17	177149.03	2425941.24	747.00
G	18	177141.98	2425934.15	746.00
G	19	177130.69	2425922.81	742.00
G	20	177120.17	2425910.97	742.00
G	21	177110.71	2425898.06	746.00
G	22	177104.80	2425890.00	747.00
G	23	177069.32	2425851.36	748.00
G	24	177059.18	2425840.32	751.00
G	25	177246.90	2425893.07	751.00

	ID	Northing	Easting	ELEV
G	26	177236.56	2425875.95	747.00
G	27	177231.40	2425867.39	746.00
G	28	177222.64	2425852.88	742.00
G	29	177204.58	2425829.85	742.00
G	30	177192.95	2425818.85	746.00
G	31	177182.88	2425809.12	748.00
G	32	177155.57	2425781.30	749.00
G	33	177148.56	2425774.16	751.00
G	34	177331.42	2425842.07	751.00
G	35	177321.08	2425824.94	747.00
G	36	177315.92	2425816.38	746.00
G	37	177297.23	2425785.41	737.00
G	38	177282.37	2425768.00	737.00
G	39	177253.41	2425745.51	746.00
G	40	177245.51	2425739.38	747.00
G	41	177242.35	2425736.92	748.00
G	42	177222.13	2425717.36	749.00
G	43	177215.04	2425710.31	751.00
G	44	177405.41	2425797.41	751.00
G	45	177395.08	2425780.29	747.00
G	46	177389.91	2425771.73	746.00
G	47	177371.30	2425740.89	737.00
G	48	177332.76	2425697.11	737.00
G	49	177306.94	2425672.02	746.00
G	50	177299.77	2425665.05	747.00

	ID	Northing	Easting	ELEV
G	51	177296.91	2425662.26	748.00
G	52	177262.71	2425647.83	750.00
G	53	177258.02	2425646.09	751.00
G	54	177490.18	2425749.07	751.00
G	55	177480.33	2425731.67	747.00
G	56	177475.56	2425723.25	746.00
G	57	177457.96	2425692.15	737.00
G	58	177435.14	2425640.99	737.00
G	59	177422.56	2425607.27	746.00
G	60	177419.06	2425597.90	747.00
G	61	177416.27	2425590.40	749.00
G	62	177577.13	2425699.84	751.00
G	63	177567.28	2425682.44	747.00
G	64	177562.71	2425674.36	746.00
G	65	177545.26	2425643.56	737.00
G	66	177523.67	2425604.02	737.00
G	67	177507.15	2425572.04	746.00
G	68	177502.56	2425563.16	747.00
G	69	177498.88	2425556.05	749.00
G	70	177670.78	2425601.87	752.00
G	71	177650.76	2425586.87	747.00
G	72	177642.75	2425580.87	746.00
G	73	177613.61	2425559.65	737.00
G	74	177606.54	2425551.65	737.00
G	75	177586.82	2425521.53	746.00

	ID	Northing	Easting	ELEV
G	76	177581.35	2425513.17	747.00
G	77	177574.78	2425503.13	750.00
G	78	177087.98	2426021.52	751.00
G	79	177078.15	2426011.68	747.33
G	80	177076.50	2426010.03	747.00
G	81	177071.09	2426004.62	746.00
G	82	177066.41	2425999.94	744.00
G	83	177033.38	2425966.88	744.00
G	84	177028.83	2425962.33	746.00
G	85	177023.49	2425956.99	747.00
G	86	177021.92	2425955.42	747.33
G	87	177014.29	2425947.78	751.00
C	89	177086.36	2426003.64	747.60
C	90	177085.65	2426004.35	747.60
C	91	177029.79	2425947.07	747.60
C	92	177029.08	2425947.78	747.60
W	94	177182.08	2425808.30	748.22
W	95	177240.20	2425735.31	748.70
W	96	177294.04	2425659.47	748.73
W	97	177343.35	2425616.59	749.08
W	98	177376.75	2425600.87	749.18
W	99	177414.87	2425586.65	749.39
W	100	177497.05	2425552.50	749.63

	ID	Northing	Easting	ELEV
W	101	177574.56	2425502.79	750.06
W	102	177319.09	2425485.11	750.00
W	103	177267.11	2425649.47	749.06
W	104	177223.13	2425718.35	748.72
W	105	177155.69	2425781.43	748.90
W	106	177112.06	2425815.93	749.00
W	107	177085.44	2425838.25	748.00
W	108	177069.53	2425851.59	747.94
W	109	177033.67	2425881.67	748.00
G	110	177028.88	2426004.56	747.23
G	111	177019.47	2426007.31	747.17
G	112	177000.33	2426002.18	747.06
G	113	176985.96	2425997.95	747.02
G	114	176971.32	2425995.15	746.94
G	115	176951.58	2425997.77	746.82
G	116	176941.51	2426000.52	746.77

REVISIONS

NO			DRN	CHK	DATE

MILWAUKEE, WI
1020 NORTH BROADWAY
414-225-5100

DRN	NLG	04-13-200
DES	RJK	04-13-200
CHK	MJD	
APP	MJD	

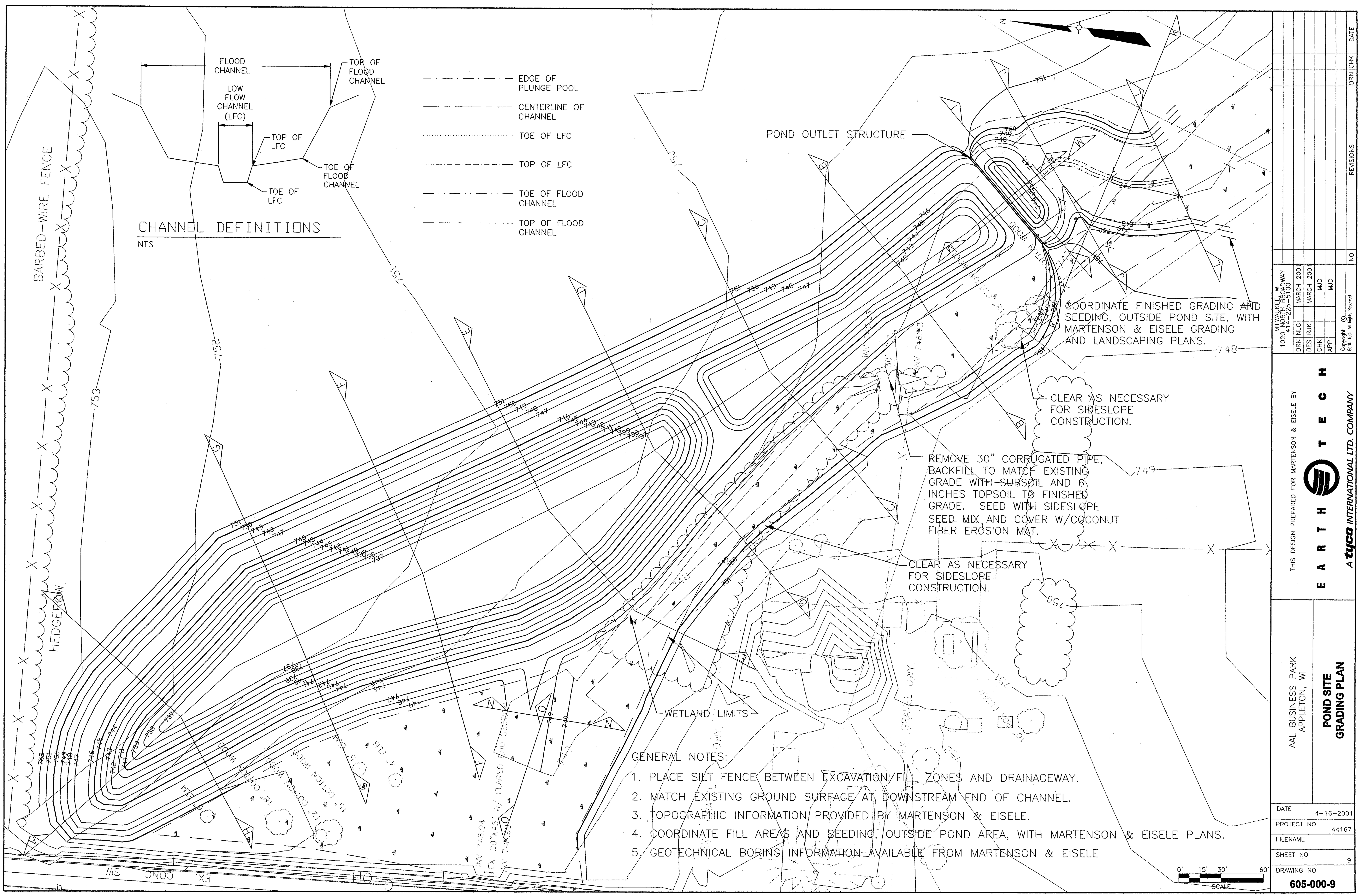
THIS DESIGN PREPARED FOR MARTENSON & EISELE BY

EARTH TECH

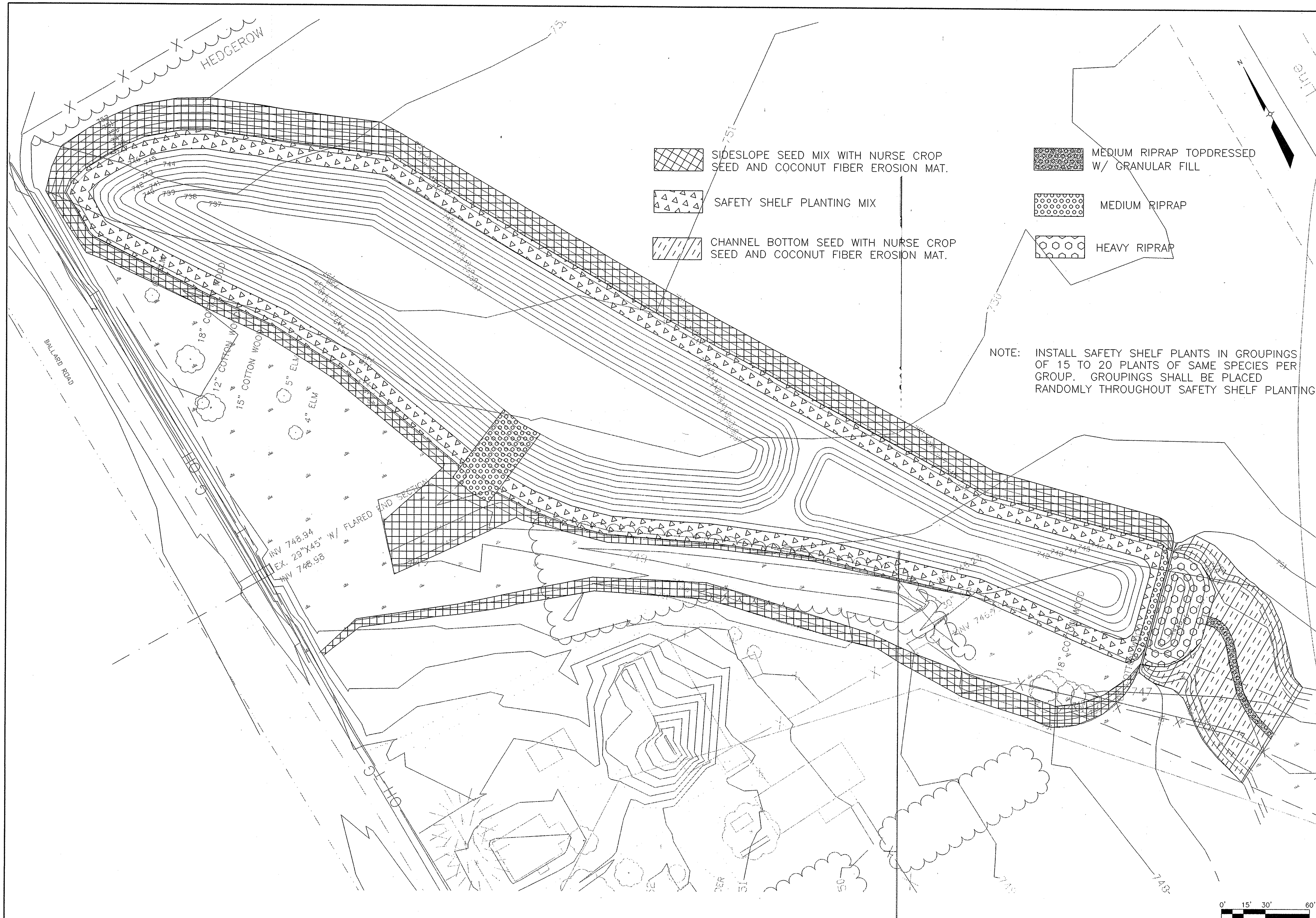
AAL BUSINESS PARK
APPLETON, WI

POND SITE
GRADING SURVEY CONTROL POINTS

DATE 04-16-2001
PROJECT NO 44167
FILENAME CONTROL01.DWG
SHEET NO 8
DRAWING NO **605-000-8**



CHANNEL DEFINITIONS
NTS
FLOOD CHANNEL
TOP OF FLOOD CHANNEL
LOW FLOW CHANNEL (LFC)
TOP OF LFC
TOE OF FLOOD CHANNEL
TOE OF LFC
EDGE OF PLUNGE POOL
CENTERLINE OF CHANNEL
TOE OF LFC
TOP OF LFC
TOE OF FLOOD CHANNEL
TOP OF FLOOD CHANNEL
BARBED-WIRE FENCE
HEDGEROW
POND OUTLET STRUCTURE
COORDINATE FINISHED GRADING AND SEEDING, OUTSIDE POND SITE, WITH MARTENSON & EISELE GRADING AND LANDSCAPING PLANS.
CLEAR AS NECESSARY FOR SIDESLOPE CONSTRUCTION.
REMOVE 30" CORRUGATED PIPE, BACKFILL TO MATCH EXISTING GRADE WITH SUBSOIL AND 6 INCHES TOPSOIL TO FINISHED GRADE. SEED WITH SIDESLOPE SEED MIX AND COVER W/COCONUT FIBER EROSION MAT.
CLEAR AS NECESSARY FOR SIDESLOPE CONSTRUCTION.
WETLAND LIMITS
GENERAL NOTES:
1. PLACE SILT FENCE BETWEEN EXCAVATION/FILL ZONES AND DRAINAGEWAY.
2. MATCH EXISTING GROUND SURFACE AT DOWNSTREAM END OF CHANNEL.
3. TOPOGRAPHIC INFORMATION PROVIDED BY MARTENSON & EISELE.
4. COORDINATE FILL AREAS AND SEEDING, OUTSIDE POND AREA, WITH MARTENSON & EISELE PLANS.
5. GEOTECHNICAL BORING INFORMATION AVAILABLE FROM MARTENSON & EISELE
EX. CONC SW
0' 15' 30' 60'
SCALE
MILWAUKEE, WI
1020 NORTH BROADWAY
414-225-5100
DRN NLG MARCH 2001
DES RJK MARCH 2001
CHK MJD
APP MJD
Copyright © Earth Tech All Rights Reserved
NO REVISIONS DRN CHK DATE
THIS DESIGN PREPARED FOR MARTENSON & EISELE BY
EARTH TECH
A tyco INTERNATIONAL LTD. COMPANY
AAL BUSINESS PARK
APPLETON, WI
POND SITE
GRADING PLAN
DATE 4-16-2001
PROJECT NO 44167
FILENAME
SHEET NO 9
DRAWING NO 605-000-9


SIDESLOPE SEED MIX WITH NURSE CROP SEED AND COCONUT FIBER EROSION MAT.
SAFETY SHELF PLANTING MIX
CHANNEL BOTTOM SEED WITH NURSE CROP SEED AND COCONUT FIBER EROSION MAT.
MEDIUM RIPRAP TOPDRESSED W/ GRANULAR FILL
MEDIUM RIPRAP
HEAVY RIPRAP
NOTE: INSTALL SAFETY SHELF PLANTS IN GROUPINGS OF 15 TO 20 PLANTS OF SAME SPECIES PER GROUP. GROUPINGS SHALL BE PLACED RANDOMLY THROUGHOUT SAFETY SHELF PLANTING
HEDGEROW
BALLARD ROAD
18" COTTON WOOD
12" COTTON WOOD
15" COTTON WOOD
5" ELM
4" ELM
INV 748.94
EX. 23"X45" W/ FLARED END SECTION
INV 748.98
Line
0' 15' 30' 60'
SCALE

THIS DESIGN PREPARED FOR MARTENSON & EISELE BY

EARTH TECH

1020 NORTH BROADWAY
MILWAUKEE, WI
414-225-5100

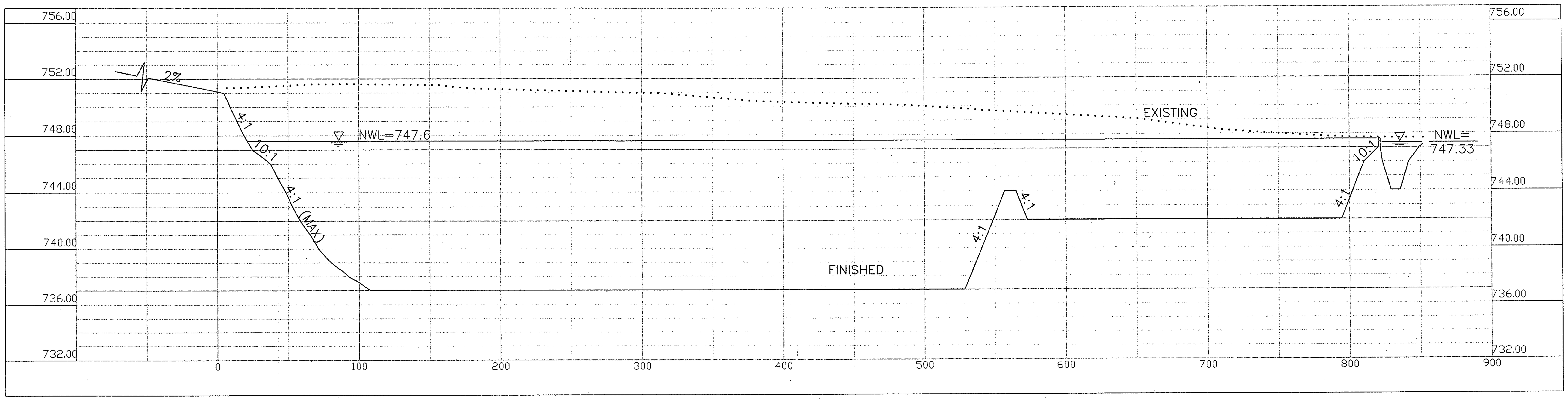
DRN	NLG	MARCH 2001	
DES	RJK	MARCH 2001	
CHK		MJD	
APP		MJD	

NO	REVISIONS	DRN	CHK	DATE

AAL BUSINESS PARK
APPLETON, WI

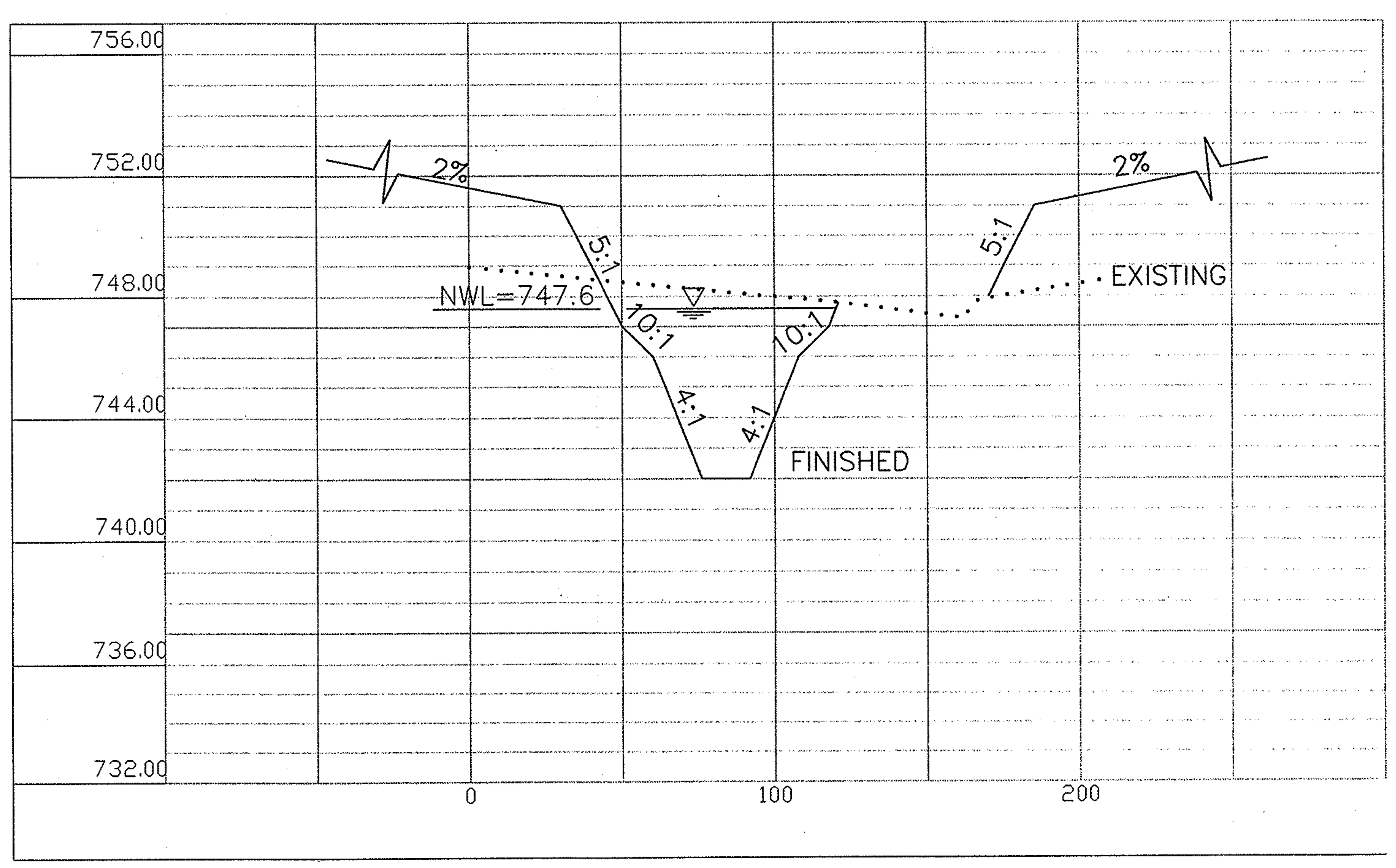
POND SITE LANDSCAPING PLAN

DATE	04-16-2001
PROJECT NO	44167
FILENAME	LAND01.DWG
SHEET NO	10
DRAWING NO	605-000-10

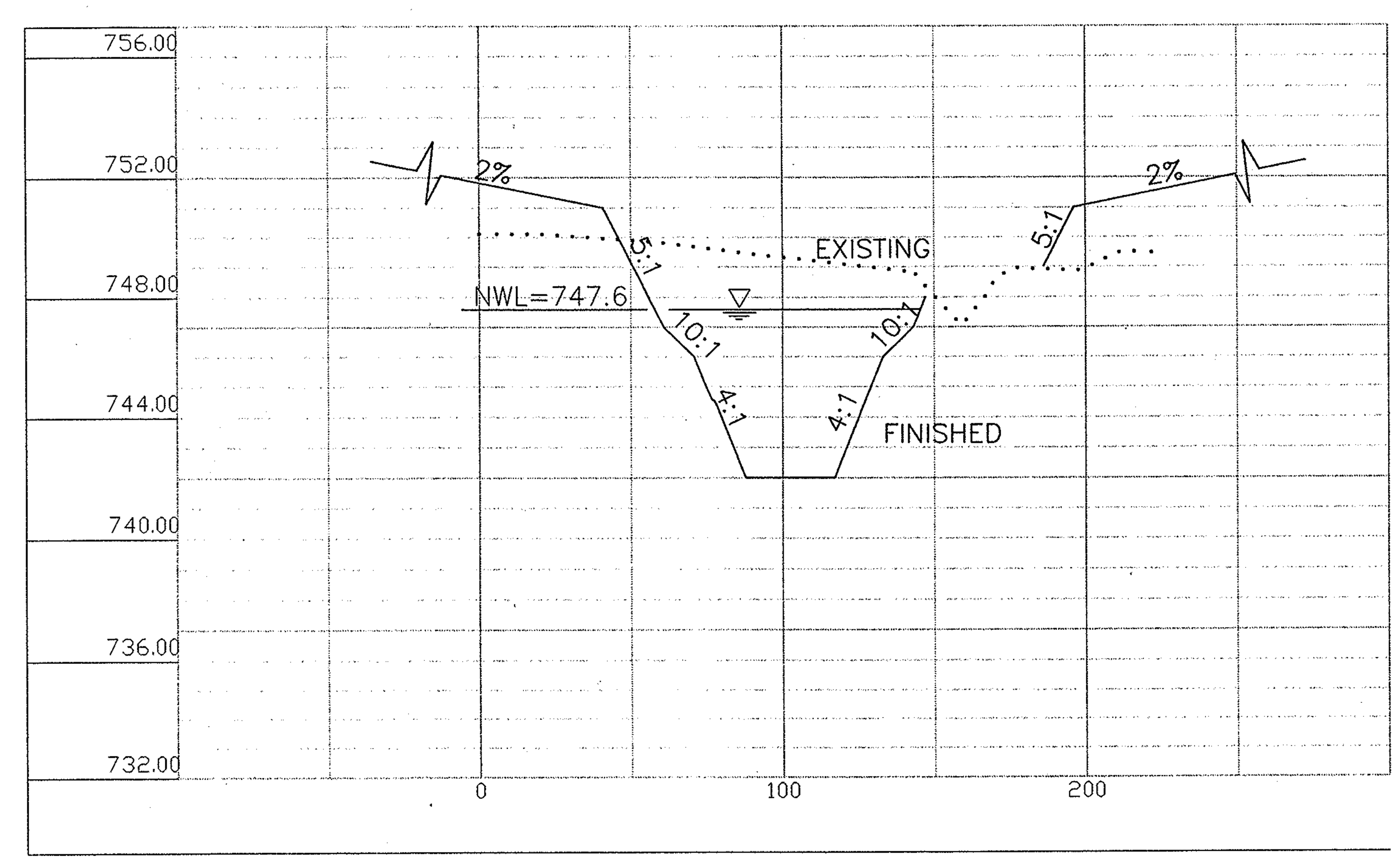


SECTION A–A

NOTE:
NWL = NORMAL WATER LEVEL



SECTION B–B



SECTION C–C

NO	REVISIONS	DATE	CHK	DRN

MILWAUKEE, WI
1020 NORTH BROADWAY
414–225–5100

DRN	NLG	APRIL 2001
DES	RJK	APRIL 2001
CHK	MJD	
APP	MJD	

THIS DESIGN PREPARED FOR MARTENSON & EISELE BY

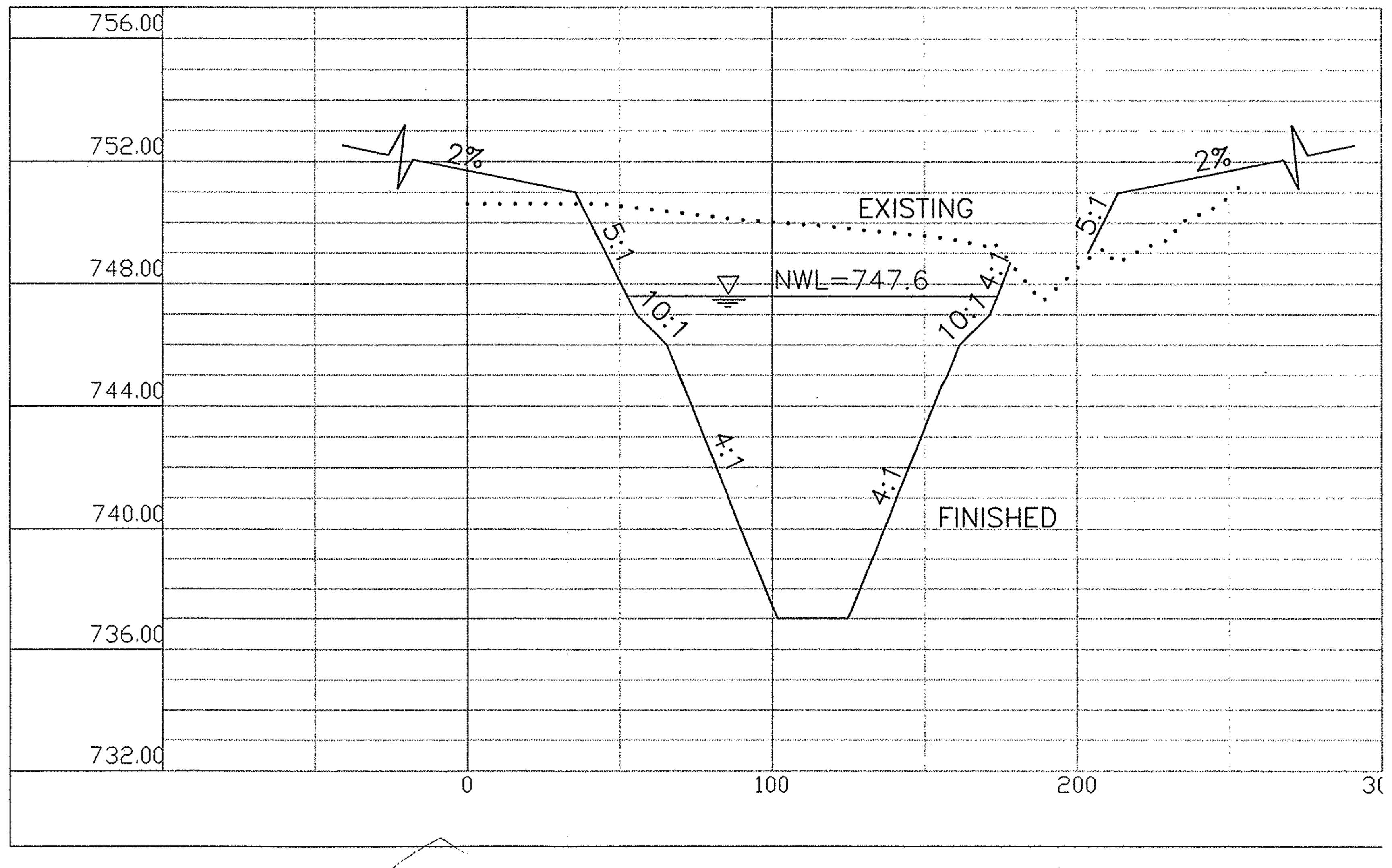
E A R T H T E C H

A tyco INTERNATIONAL LTD. COMPANY

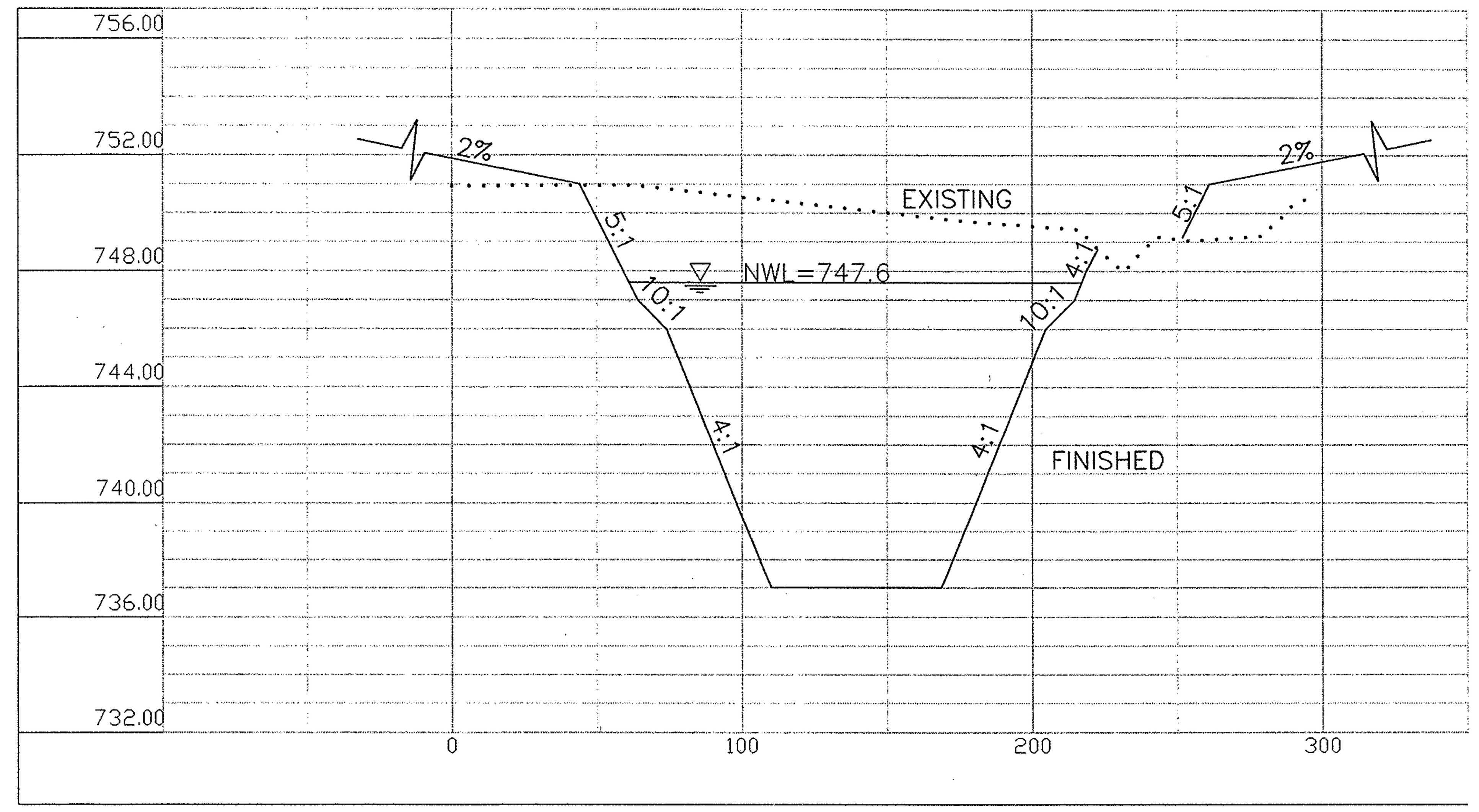
AAL BUSINESS PARK
APPLETON, WI

POND SITE
CROSS SECTIONS

DATE	04–16–2001
PROJECT NO	44167
FILENAME	PROPOSED.DWG
SHEET NO	11
DRAWING NO	**605-000-11**

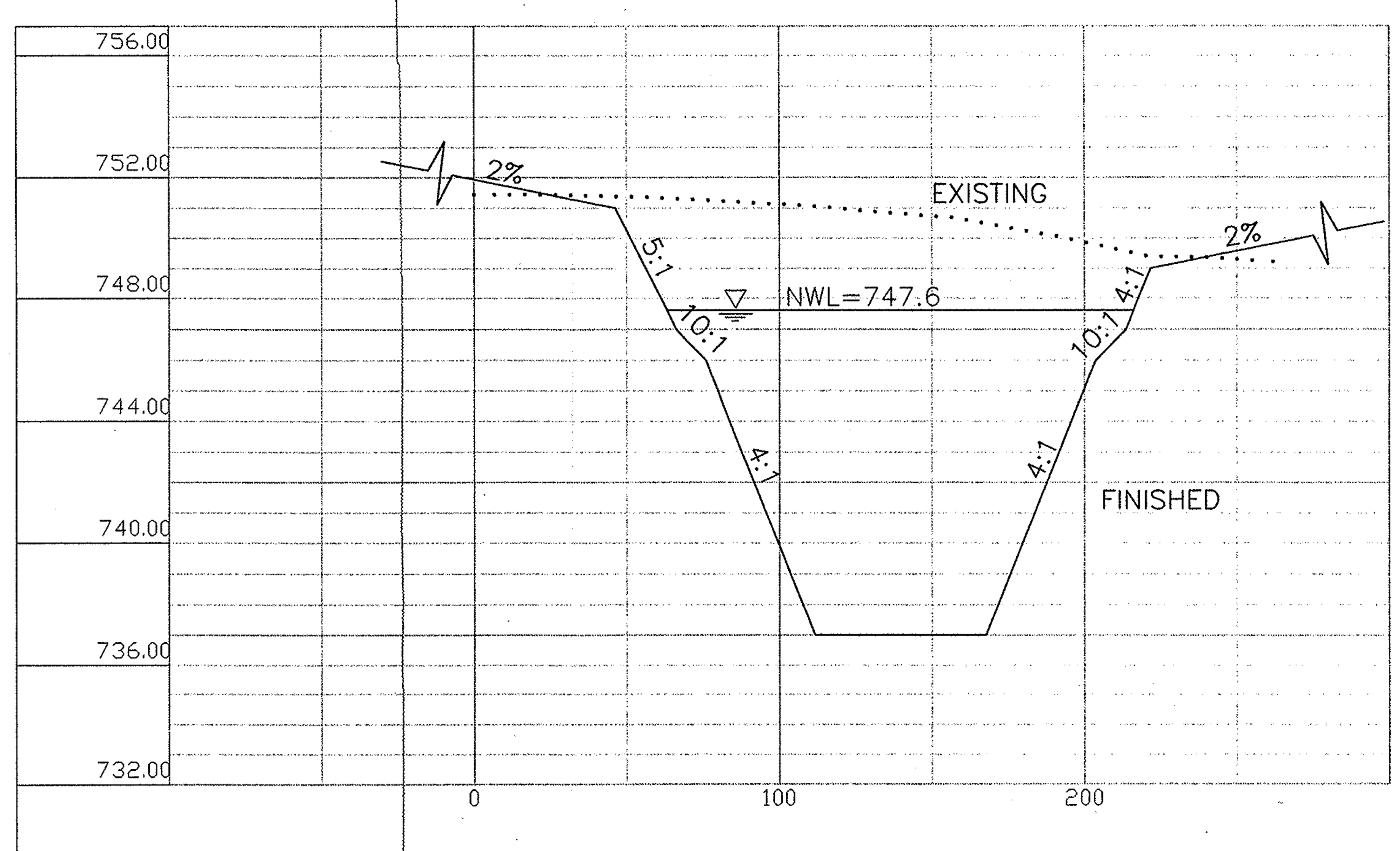


SECTION D–D

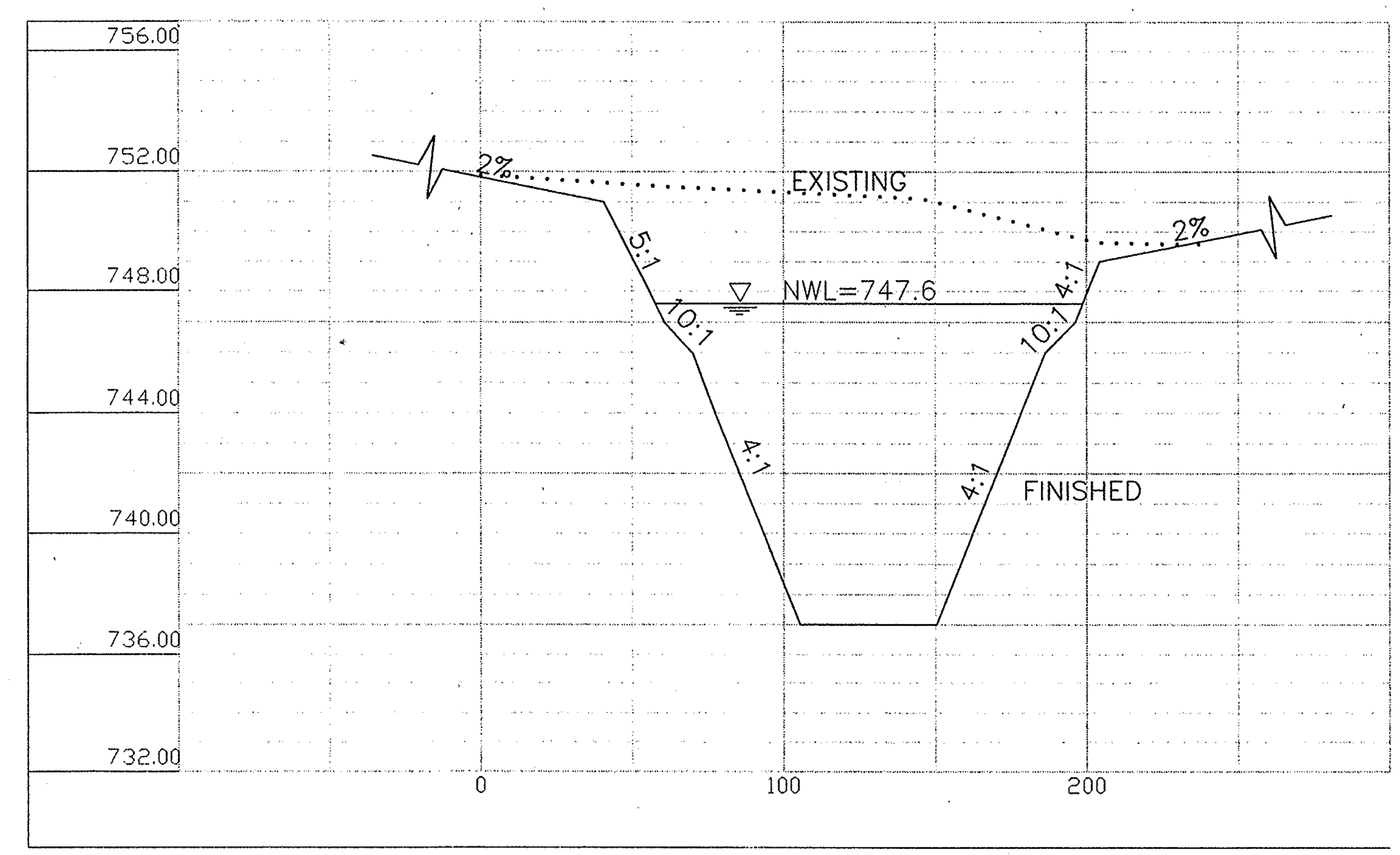


SECTION E–E

NOTE:
NWL = NORMAL WATER LEVEL



SECTION F–F



SECTION G–G

NO	REVISIONS	DRN	CHK	DATE

MILWAUKEE, WI
1020 NORTH BROADWAY
414-225-5100

DRN	NLG	APRIL 2001
DES	RJK	APRIL 2001
CHK	MJD	
APP	MJD	

THIS DESIGN PREPARED FOR MARTENSON & EISELE BY

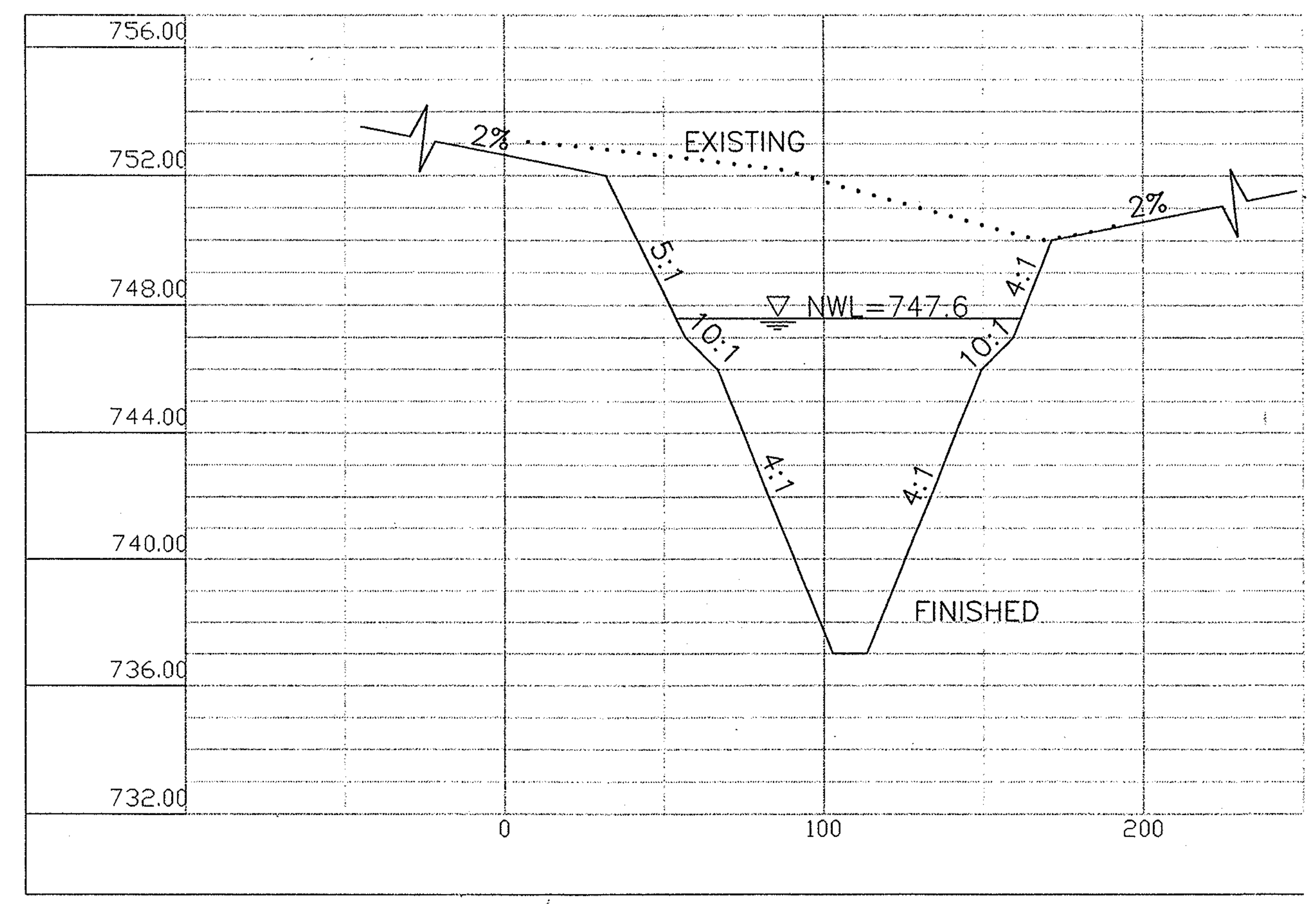
E A R T H T E C H

A tyco INTERNATIONAL LTD. COMPANY

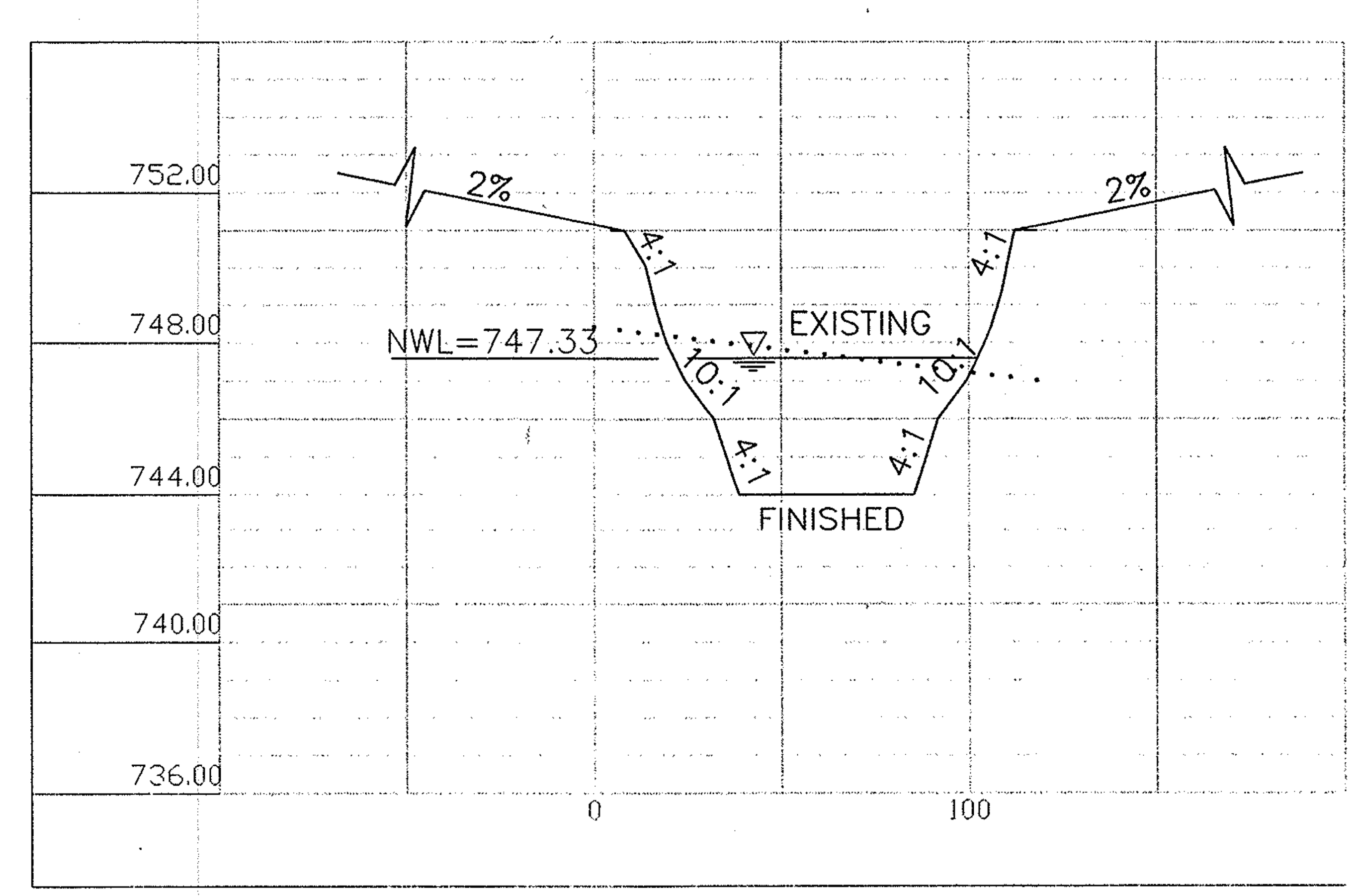
AAL BUSINESS PARK
APPLETON, WI

POND SITE
CROSS SECTIONS

DATE	04–16–2001
PROJECT NO	44167
FILENAME	PROPOSED.DWG
SHEET NO	12
DRAWING NO	**605-000-12**



SECTION H–H



SECTION I–I

NOTE:
NWL = NORMAL WATER LEVEL

NO	REVISIONS	DRN	CHK	DATE

MILWAUKEE, WI
1020 NORTH BROADWAY
414-225-5100

DRN	NLG	APRIL 2001
DES	RJK	APRIL 2001
CHK	MJD	
APP	MJD	

THIS DESIGN PREPARED FOR MARTENSON & EISELE BY

EARTH TECH

A tyco INTERNATIONAL LTD. COMPANY

AAL BUSINESS PARK
APPLETON, WI

POND SITE
CROSS SECTIONS

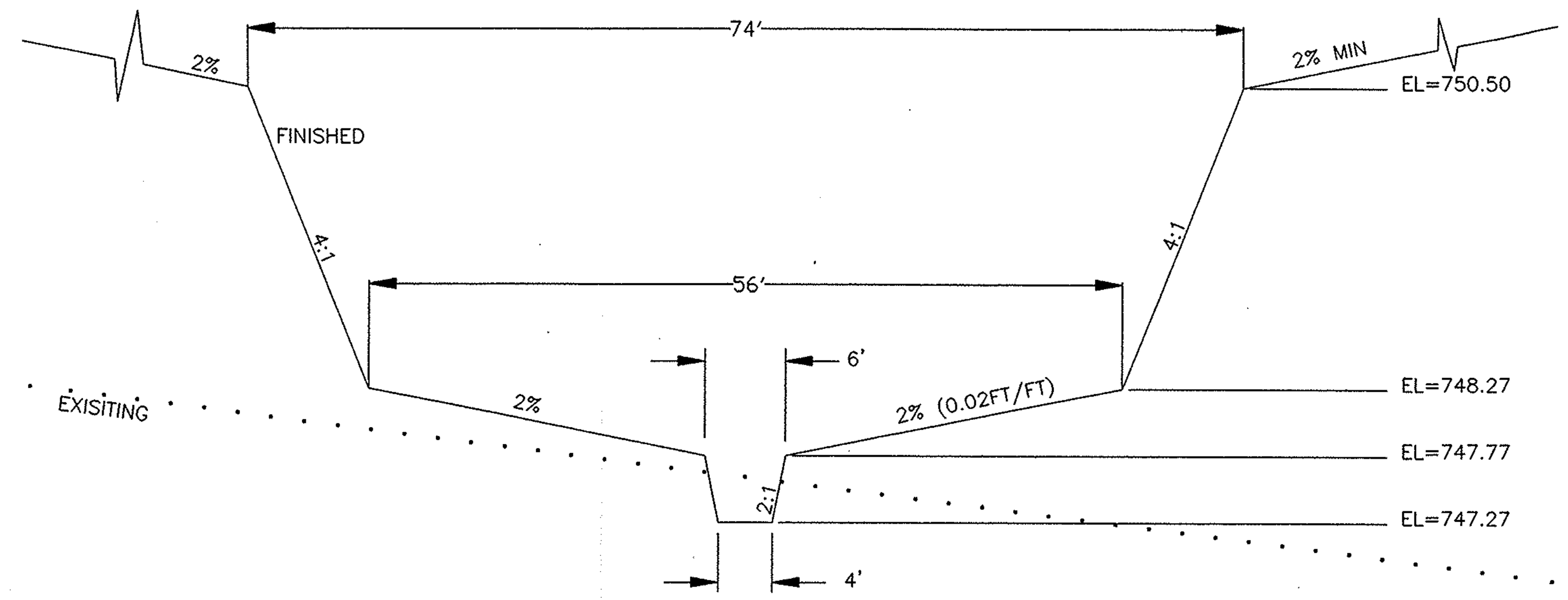
DATE 03-29-2001

PROJECT NO 44167

FILENAME PROPOSED.DWG

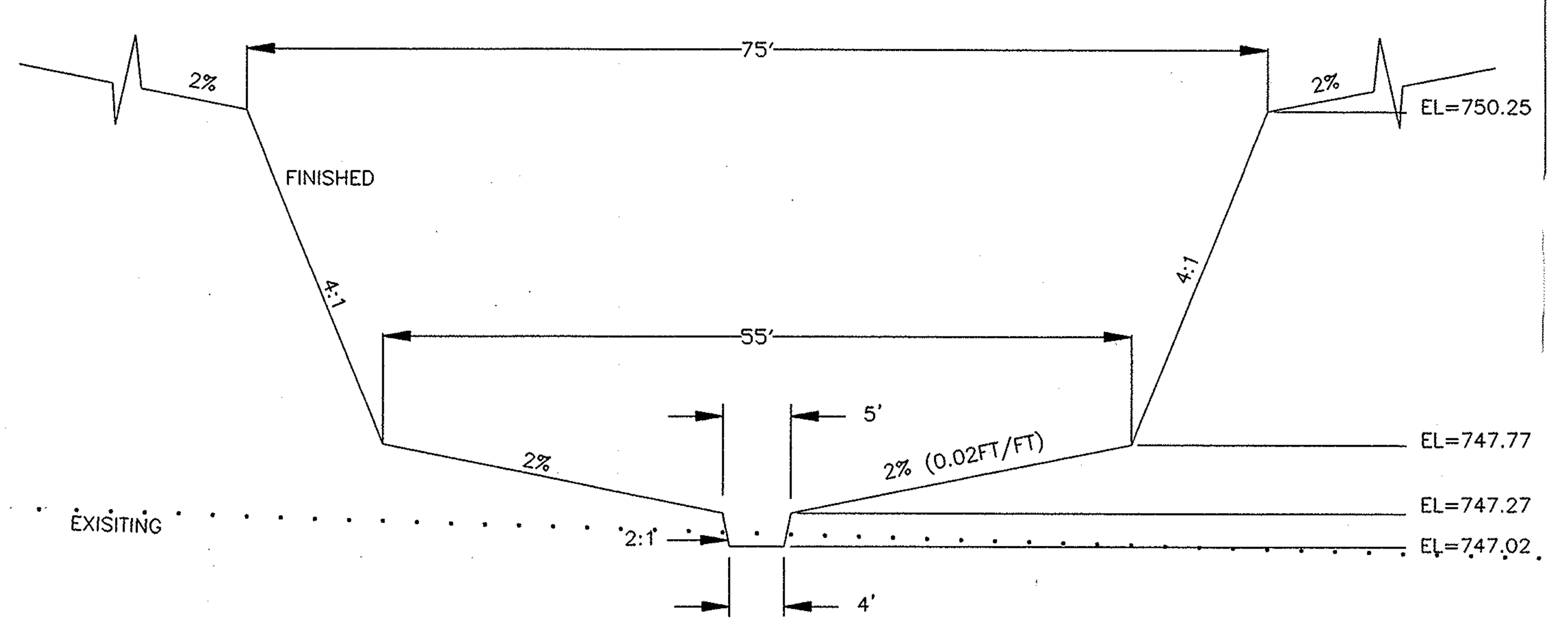
SHEET NO 13

DRAWING NO **605-000-13**



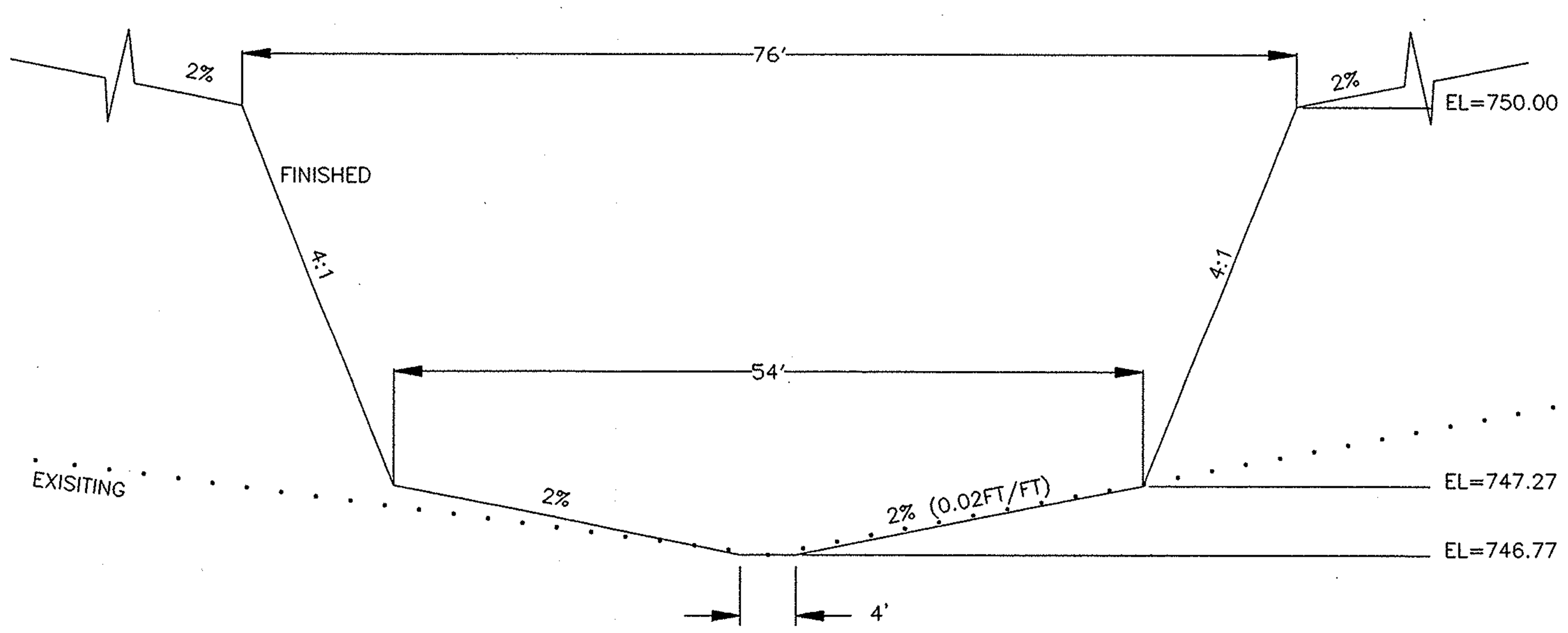
CROSS SECTION J-J

NTS



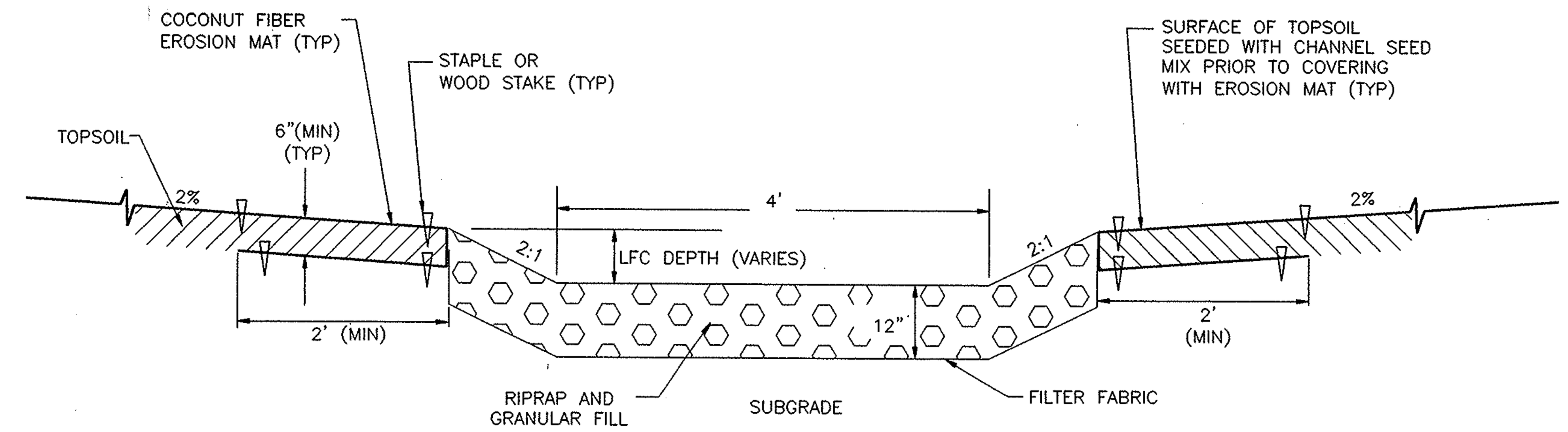
CROSS SECTION K-K

NTS



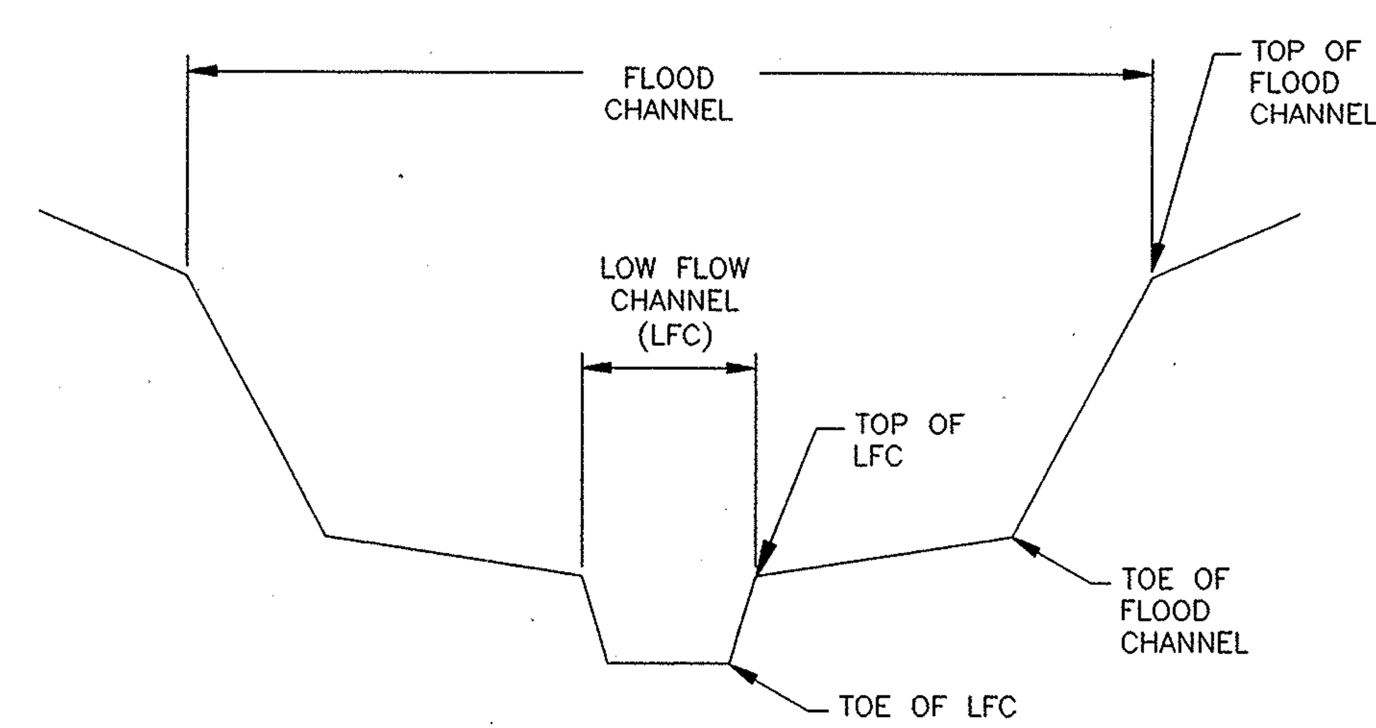
CROSS SECTION L-L

NTS



LOW FLOW CHANNEL (LFC) SECTION

NTS



CHANNEL DEFINITIONS

NTS

NO	REVISIONS	DRN	CHK	DATE

THIS DESIGN PREPARED FOR MARTENSON & EISELE BY

EARTH TECH

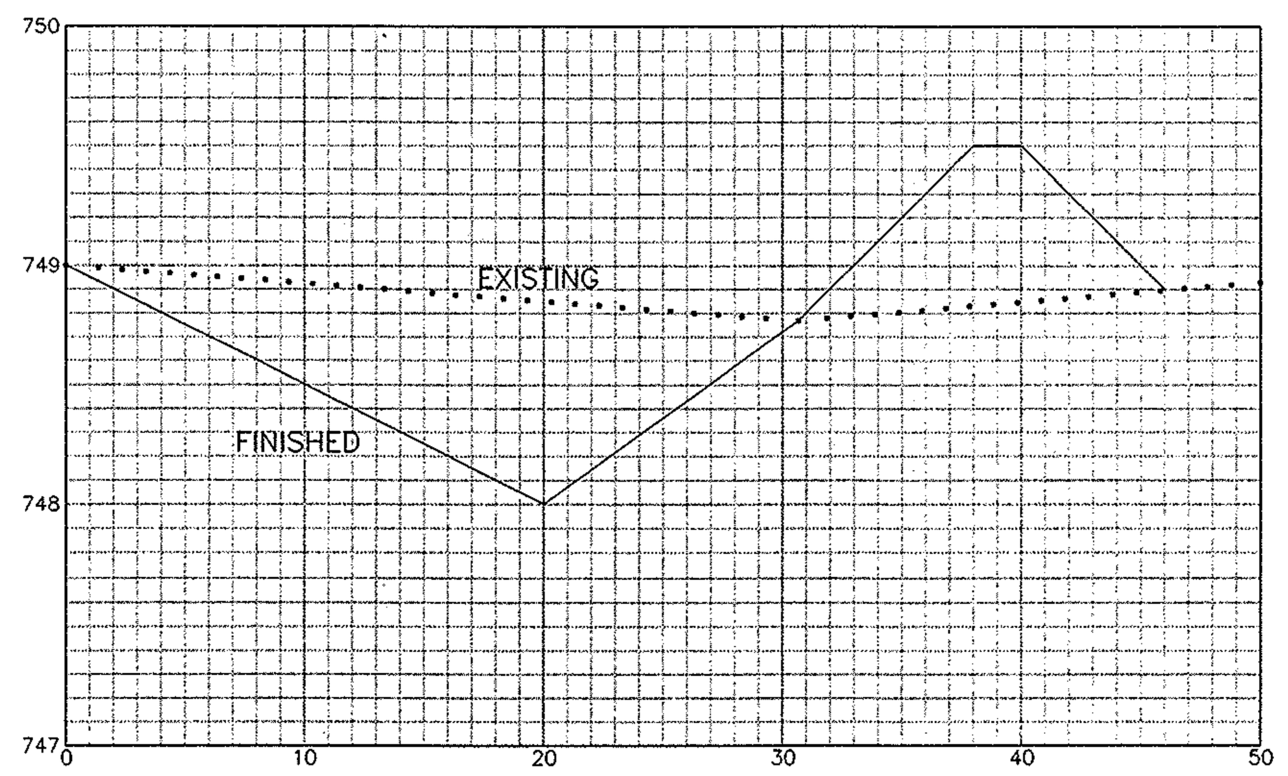
MILWAUKEE, WI
1020 NORTH BROADWAY
414-225-5100

DRN	NLG	04-12-200
DES	RJK	04-12-200
CHK	MJD	
APP	MJD	

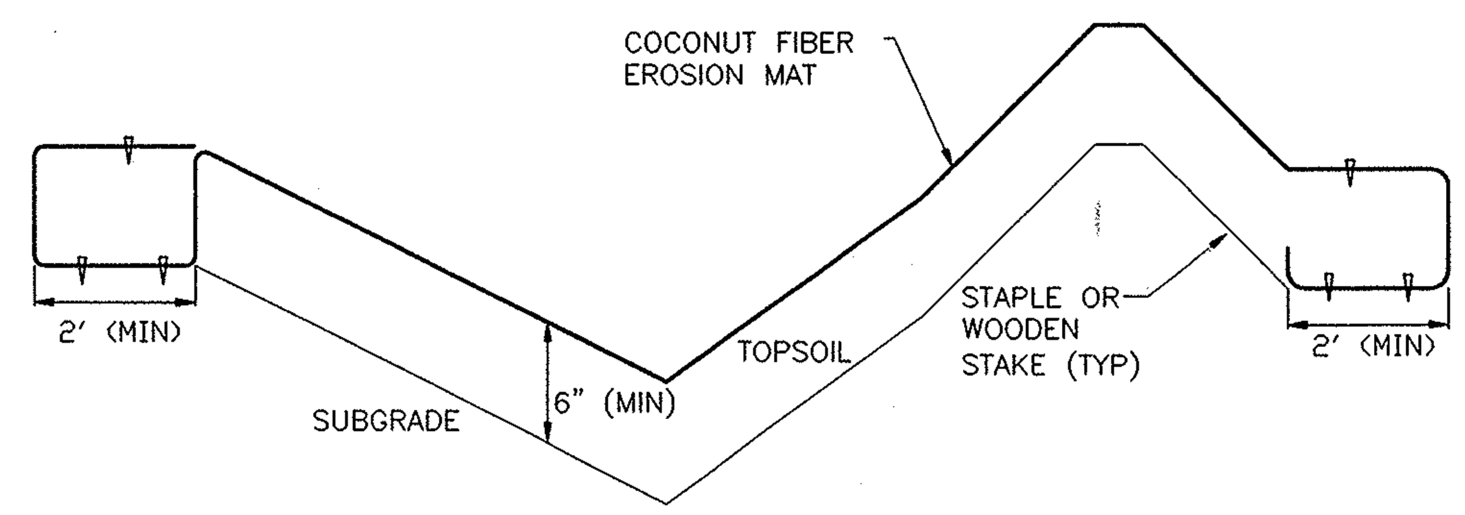
AAL BUSINESS PARK
APPLETON, WI

POND SITE
CROSS SECTIONS AND DETAILS

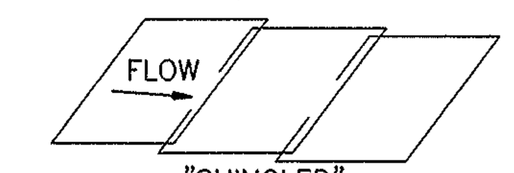
DATE	04-16-2001
PROJECT NO	44167
FILENAME	DETAIL01.DWG
SHEET NO	14
DRAWING NO	**605-000-14**



INLET SWALE CROSS SECTION N-N
NTS

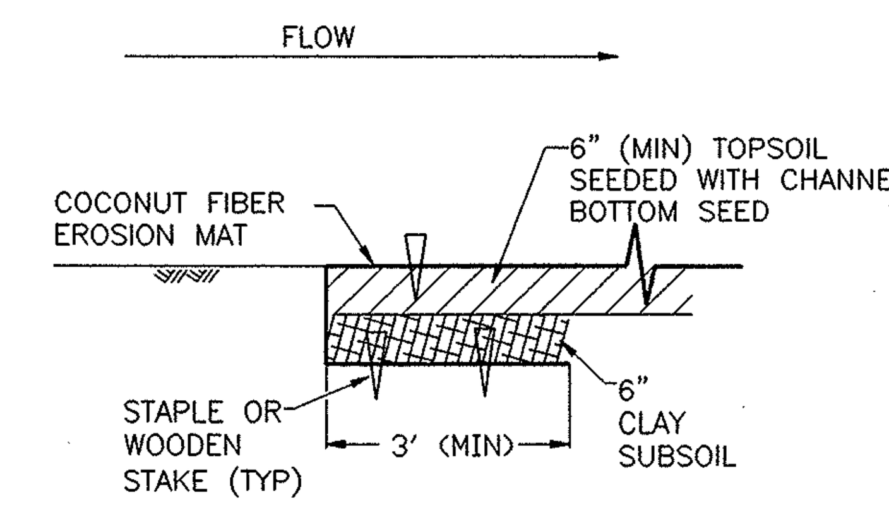


NOTE:
1) SEED SURFACE OF TOPSOIL LAYER WITH SIDESLOPE MIX PRIOR TO COVERING WITH COCONUT FIBER MAT.
2) COCONUT FIBER EROSION MAT SHALL BE LAID SO AS TO "SHINGLE" THE OVERLAPPING PORTIONS, SUCH THAT THE LEADING EDGE OF A PANEL IS NOT EXPOSED DIRECTLY TO WATER FLOW.



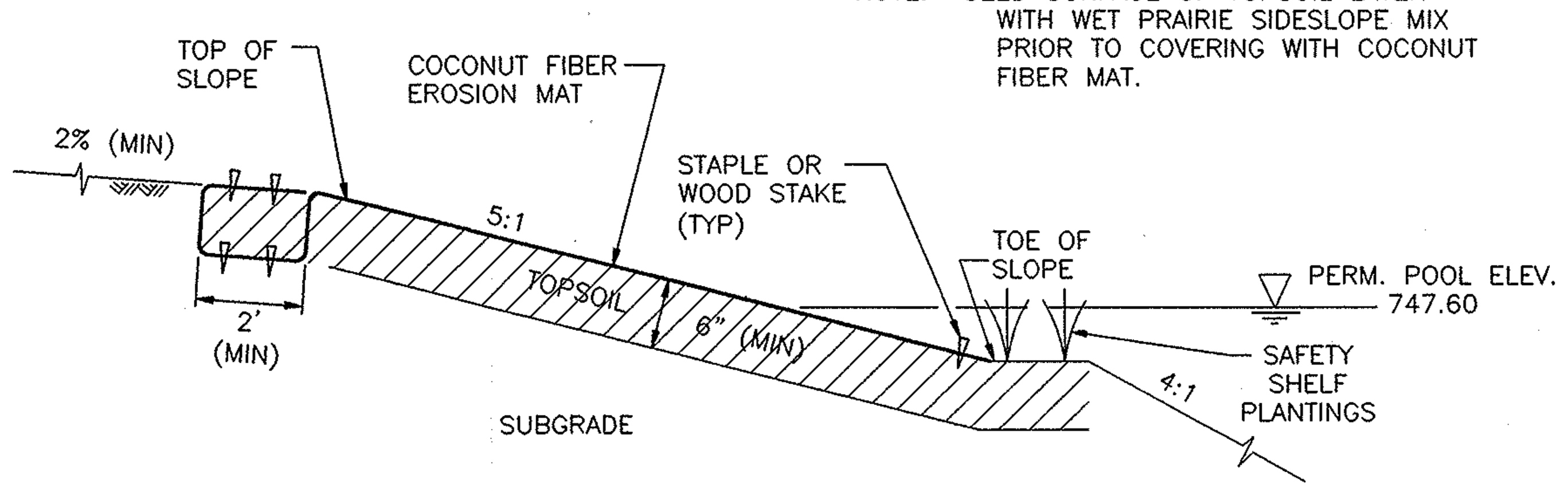
"SHINGLED" PLACEMENT OF EROSION MAT

INLET SWALE CROSS SECTION N-N DETAIL
NTS



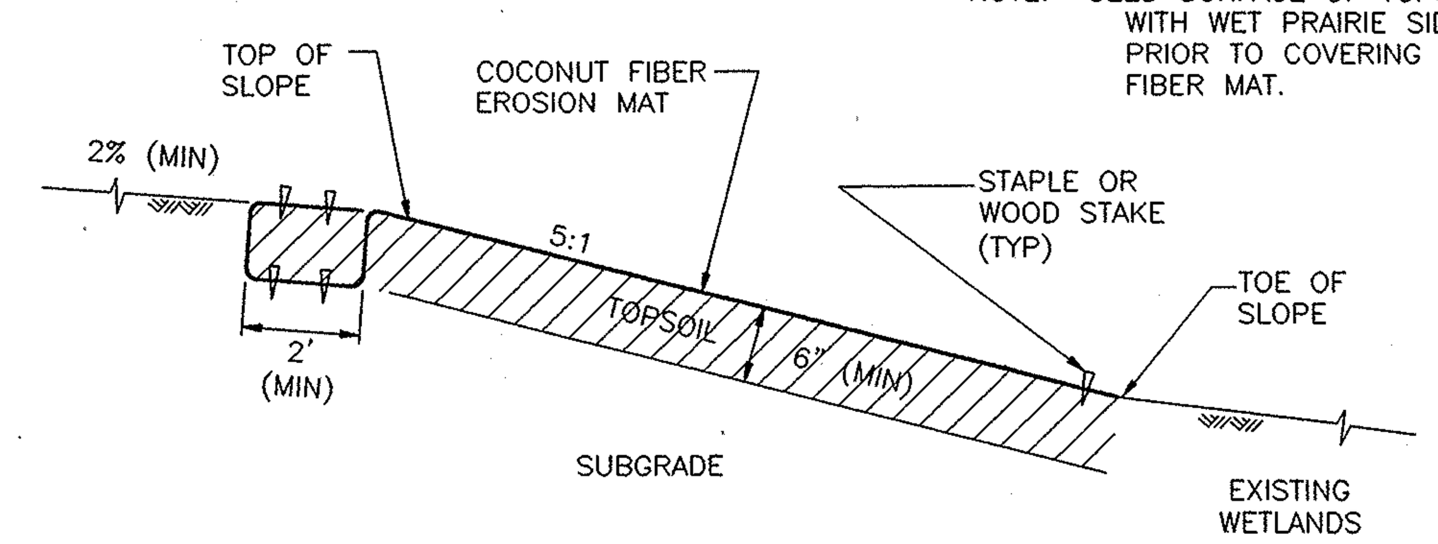
UPSTREAM END OF INLET SWALE CROSS SECTION O-O
NTS

NOTE: SEED SURFACE OF TOPSOIL LAYER WITH WET PRAIRIE SIDESLOPE MIX PRIOR TO COVERING WITH COCONUT FIBER MAT.



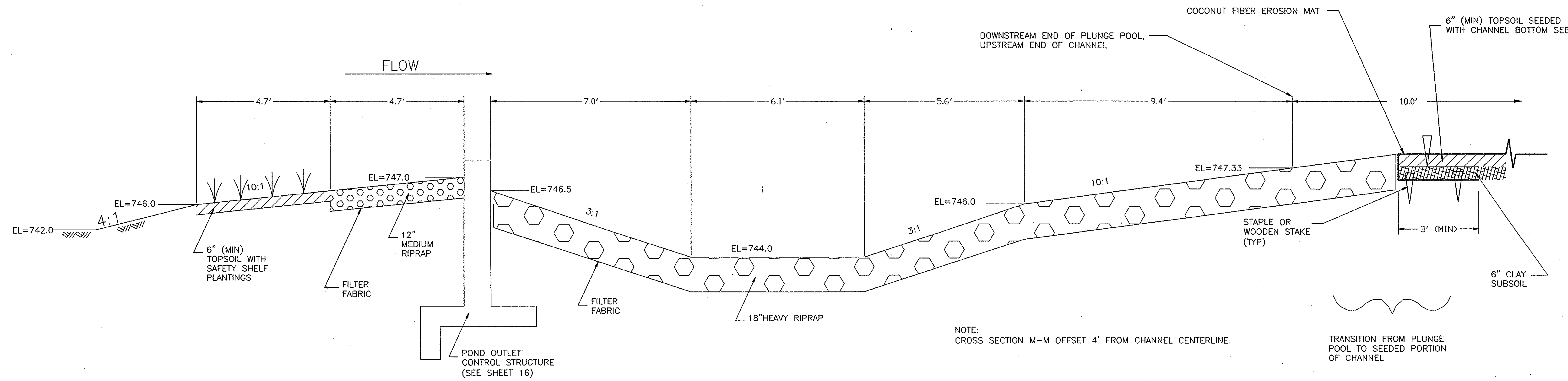
SIDESLOPE ADJACENT TO PERMANENT POOL

NOTE: SEED SURFACE OF TOPSOIL LAYER WITH WET PRAIRIE SIDESLOPE MIX PRIOR TO COVERING WITH COCONUT FIBER MAT.



SIDESLOPE ADJACENT TO EXISTING WETLANDS

TYPICAL SIDESLOPE EROSION PROTECTION DETAIL
NTS



NOTE:
CROSS SECTION M-M OFFSET 4' FROM CHANNEL CENTERLINE.

POND OUTLET CROSS SECTION M-M
NTS

NO	REVISIONS	DRN	CHK	DATE

THIS DESIGN PREPARED FOR MARTENSON & EISELE BY

EARTH TECH

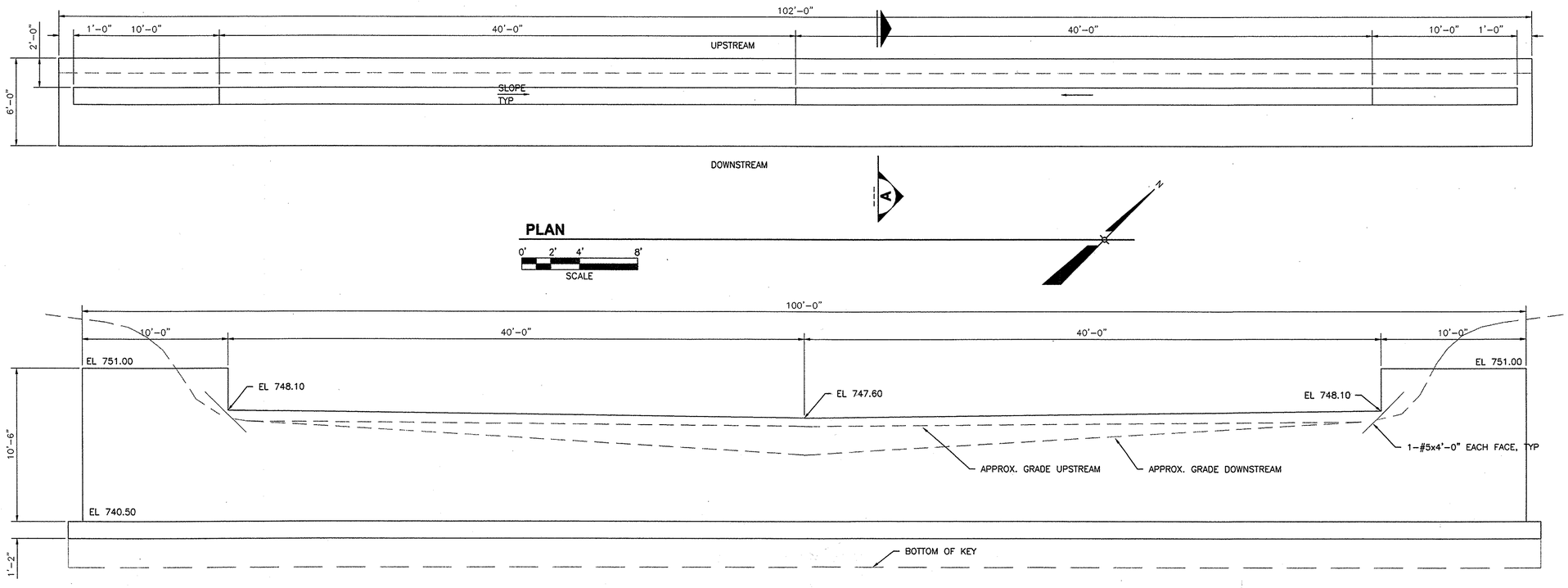
1020 NORTH BROADWAY
MILWAUKEE, WI
414-225-5100

DRN	NLC	04-11-01
DES	RJK	4-12-01
CHK	MJD	
APP	MJD	

AAL BUSINESS PARK
APPLETON, WI

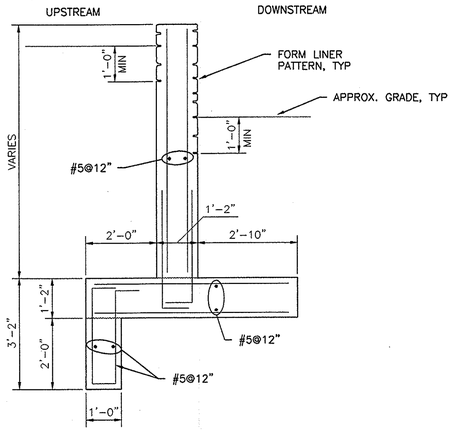
POND SITE
CROSS SECTIONS AND DETAILS

DATE 04-12-2001
PROJECT NO 44167
FILENAME DETAIL01.DWG
SHEET NO 15
DRAWING NO
605-000-15



ELEVATION

0' 2' 4' 8'
SCALE



NOTE: REINF SHOWN #6@12" UNLESS NOTED OTHERWISE.

SECTION A

0' 2' 4'
SCALE

GENERAL STRUCTURAL NOTES

DESIGN CRITERIA

1. DESIGN AND CONSTRUCT IN CONFORMANCE WITH THE WISCONSIN ADMINISTRATIVE CODE, SECTION ILHR, 53

FOUNDATIONS

1. NET SOIL BEARING CAPACITIES: 2000 PSF (ASSUMED)
2. PLACE FOOTINGS ON NATURAL UNDISTURBED EARTH OR STRUCTURAL FILL.
3. PLACE FILL SIMULTANEOUSLY ON BOTH SIDES OF FREE-STANDING STRUCTURES.
4. TO MINIMIZE LATERAL FORCES AGAINST THE STRUCTURE DUE TO WEDGING ACTION OF THE SOIL, BEGIN COMPACTION OF EACH LAYER AT THE STRUCTURE WALL.

CONCRETE

1. REINFORCING STEEL:
   DEFORMED BARS ASTM A615-GRADE 60
2. UNLESS OTHERWISE SHOWN PROVIDE COVER FOR REINFORCEMENT AS FOLLOWS:
   A. CAST AGAINST
      1. EARTH 3 INCHES
      2. MUD SLAB 2 INCHES
   B. EXPOSED TO EARTH, WEATHER OR WATER:
      1. SLABS:
         A. #5 BARS AND SMALLER 1 1/2 INCHES
         B. #6 THRU #11 BARS 2 INCHES
      2. WALLS: 2 INCHES
3. PLACE DOWELS BEFORE PLACING CONCRETE.
4. DO NOT WELD OR FIELD BEND REINFORCING BARS.
5. CONCRETE:
   ALL LOCATIONS: CLASS A F'c=4000 PSI
6. UNLESS OTHERWISE NOTED, CONSTRUCTION JOINTS SHOWN ARE OPTIONAL. CONSTRUCTION JOINTS NOT SHOWN ON THE DRAWINGS SHALL BE APPROVED BY ENGINEER.
7. LIMIT SIZE OF CONCRETE POURS. MAXIMUM LENGTH OF WALL AND SLAB POURS SHALL NOT EXCEED 60 FT.
8. BEFORE CONCRETE IS PLACED, CONSTRUCTION JOINTS SHALL BE CLEANED AND LAITANCE REMOVED AND SURFACE WETTED. STANDING WATER SHALL BE REMOVED.
9. CONSTRUCTION JOINTS SHALL HAVE KEYS OR ROUGHENED SURFACES. WHERE ROUGHENED SURFACE IS USED, THE SURFACE SHALL HAVE AN AMPLITUDE OF 1/4" MIN.
10. CHAMFER EXPOSED EDGES OF CONCRETE 3/4" UNLESS OTHERWISE NOTED.

MINIMUM REINFORCEMENT BAR SPLICE AND ANCHORAGE LENGTH (INCHES)

BAR SIZE IN-POUND	BAR SIZE METRIC mm	LAPPED SPLICE LENGTH		EMBEDMENT LENGTH		COMPRESSION LAP LENGTH
		TOP BARS	OTHERS	TOP BARS	OTHERS	
3	10	21	16	16	12	12
4	13	21	16	16	12	15
5	16	24	19	19	15	19
6	19	29	23	23	18	23
7	22	43	33	33	25	26
8	25	49	37	37	29	30
9	29	60	46	46	36	34
10	32	72	56	56	43	38
11	36	85	66	66	51	42

NOTES:
1. TOP BARS ARE HORIZONTAL BARS SO PLACED THAT MORE THAN 12" OF CONCRETE IS CAST IN THE MEMBER BELOW THE BAR.
2. FOR BARS SPACED LESS THAN 6 BAR DIAMETERS O.C. INCREASE LENGTH BY 25%.
3. WHEN LAPPING TWO DIFFERENT SIZE BARS USE THE LAP LENGTH OF THE SMALLER BAR UNLESS NOTED OTHERWISE.
4. EMBEDMENT LENGTH IS MINIMUM LENGTH OF EMBEDMENT FOR STRAIGHT DOWELS WHERE END HOOK IS NOT SHOWN, UNLESS OTHERWISE NOTED.
5. COMPRESSION LAP LENGTH FOR VERTICAL COLUMN BARS ONLY.
6. HOOKS SHALL BE ACI STANDARD UNLESS OTHERWISE NOTED.

NO	REVISIONS	DRN CHK	DATE

DRN	CLS	APRIL	2001
DES	CLS	APRIL	2001
CHK	WHM		
APP			

THIS DESIGN PREPARED FOR MARTENSON & EISELE BY

EARTH TECH

AAL BUSINESS PARK
APPLETON, WI

OUTLET WEIR PLAN, ELEVATION SECTION, NOTES & DETAILS

DATE	APRIL 2001
PROJECT NO	44167
FILE NO	Outlet Weir.dwg
SHEET NO	16
DRAWING NO	605-000-16