

JUNE 17, 2011 LETTING ITEM NO. 7A
 CONSTRUCTION PLANS

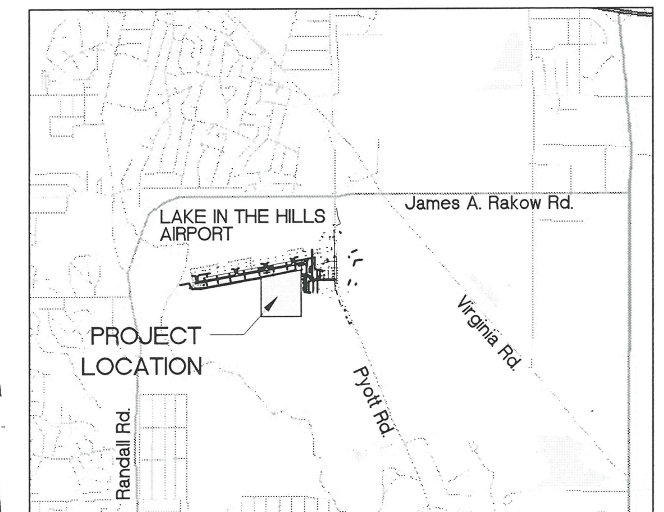
LK009
 TOTAL SHEETS = 32

REPLACE MAIN APRON, STAGE 1 GRADING AND DRAINAGE

LAKE IN THE HILLS AIRPORT (3CK)
 LAKE IN THE HILLS, McHENRY COUNTY, ILLINOIS


AIP PROJECT NO. 3-17-0112-B14
 IDA PROJECT NO. 3CK-4037

VICINITY MAP





I:\08\085\108841\08A014\1\DRAWINGS\SHEETS\01-COVER.DWG APR 06, 2011 1:50PM HAUSMAN0682

No.	Issue/Description	Sheets Changed	Date	By

Seal: 
 Date of Plans: EXP 11/30/11 — 4/22/11
 Lindsay D. Hausman, P.E.
 Project Engineer

 HANSON
 HANSON PROFESSIONAL SERVICES INC.
 815 Commerce Drive, Suite 200
 Oak Brook, Illinois 60523
 Telephone: 630.580.3800
 Fax: 630.990.3801

 Ronald M. Hudson, AICP
 Project Manager
 22 Apr 2011
 Date

 LAKE IN THE HILLS AIRPORT
 VILLAGE OF LAKE IN THE HILLS, ILLINOIS
 8407 Pyott Road
 Lake in the Hills, Illinois 60156
 Telephone: 847.960.7500

 Fred Mullard
 Director and Airport Manager
 4/22/11
 Date

INDEX OF SHEETS	
SHEET NO.	TITLE
1	COVER SHEET
2	SHEET INDEX AND SUMMARY OF QUANTITIES
3	SITE PLAN AND GENERAL NOTES
4	CONSTRUCTION SAFETY NOTES AND DETAILS
5	ALIGNMENT DATA
6	TYPICAL SECTIONS
7	CLEARING AND GRUBBING PLAN
8	FILL SAND PLACEMENT PLAN
9-10	GRADING PLAN
11	PLAN AND PROFILE
12-22	CROSS SECTIONS
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31	EROSION CONTROL DETAILS
32	LANDSCAPING PLAN

SUMMARY OF QUANTITIES				
ITEM NO.	DESCRIPTION	UNIT	AS BID	RECORD PAID
AR150510	ENGINEER'S FIELD OFFICE	LUMP SUM	1.0	
AR151450	CLEARING AND GRUBBING	ACRE	5.7	
AR152410	UNCLASSIFIED EXCAVATION	CUBIC YARD	785.0	
AR152442	OFFSITE BORROW EXCAVATION	CUBIC YARD	218,570.0	
AR156510	SILT FENCE	LINEAR FOOT	1,870.0	
AR156520	INLET PROTECTION	EACH	12.0	
AR156545	RIPRAP - GRADATION NO. 5	SQUARE YARD	57.0	
AR162508	CLASS E FENCE 8'	LINEAR FOOT	2,210.0	
AR162900	REMOVE CLASS E FENCE	LINEAR FOOT	570.0	
AR701512	12" RCP, CLASS IV	LINEAR FOOT	103.0	
AR701518	18" RCP, CLASS IV	LINEAR FOOT	534.0	
AR701524	24" RCP, CLASS IV	LINEAR FOOT	583.0	
AR701530	30" RCP, CLASS IV	LINEAR FOOT	235.0	
AR751411	INLET - TYPE A	EACH	1.0	
AR751540	MANHOLE 4'	EACH	4.0	
AR751550	MANHOLE 5'	EACH	6.0	
AR752424	PRECAST REINFORCED CONC. FES 24"	EACH	1.0	
AR752430	PRECAST REINFORCED CONC. FES 30"	EACH	1.0	
AR752524	GRATING FOR CONC. FES 24"	EACH	1.0	
AR752530	GRATING FOR CONC. FES 30"	EACH	1.0	
AR800909	RELOCATE CLASS E GATE - 20'	EACH	1.0	
AR800914	EROSION BLANKET	SQUARE YARD	24,380.0	
AR800937	CONSERVATION COVER	ACRE	6.7	
AR803016	FILL SAND	TON	136,300	
AR901510	SEEDING	ACRE	8.3	
AR905520	TOPSOILING (FROM OFF SITE)	CUBIC YARD	12,620.0	
AR908510	MULCHING	ACRE	9.9	

PAYMENT WILL BE MADE UNDER THE ITEM NUMBERS, DESCRIPTIONS AND UNITS NOTED IN THE ABOVE TABLE IN ACCORDANCE WITH THE BASIS OF PAYMENT FOR EACH RESPECTIVE WORK ITEM NOTED IN THE SPECIAL PROVISIONS, COMPLETED AND ACCEPTED BY THE ENGINEER.

REVISION	DATE

VILLAGE OF LAKE IN THE HILLS
 600 Harvest Gate
 Lake in the Hills, Illinois 60156 Telephone: 847.960.7410
 Fax: 847.960.7515



Hanson No. 09A0143	02-SUMMARY OF QUANTITIES.DWG	LAYOUT	LDH	3/16/11
Filename	None	DRAWN	LDH	3/16/11
Scale	APRIL 22, 2011	REVIEWED	RMH	4/13/11

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 815 Commerce Drive Suite 200
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SHEET INDEX AND SUMMARY OF QUANTITIES
 REPLACE MAIN APRON, STAGE 1
 GRADING AND DRAINAGE
 IDA No. 3CK-4037 AIP No. 3-17-0112-B14

REVISION	DATE

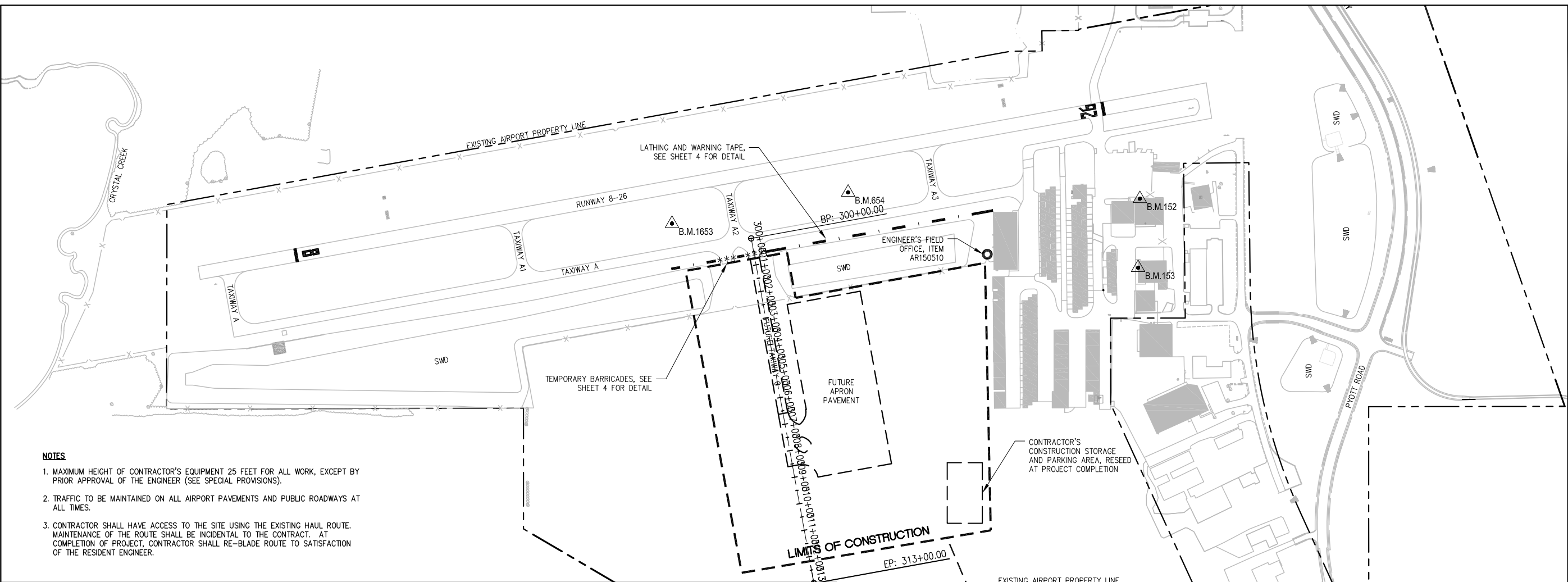
VILLAGE OF LAKE IN THE HILLS
 600 Harvest Gate
 Lake in the Hills, Illinois 60156 Telephone:
 847.960.7410
 Fax: 847.960.7515



Hanson No. 09A0143	LDH	3/04/10
Filename 03-SITE PLAN.DWG	SJM	3/04/10
Scale 1"=200'	RMH	4/13/11
Date APRIL 22, 2011		
LAYOUT		
DRAWN		
REVIEWED		

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SITE PLAN AND GENERAL NOTES
 REPLACE MAIN APRON, STAGE 1
 GRADING AND DRAINAGE
 IDA No. 3CK-4037 AIP No. 3-17-0112-B14



- NOTES**
- MAXIMUM HEIGHT OF CONTRACTOR'S EQUIPMENT 25 FEET FOR ALL WORK, EXCEPT BY PRIOR APPROVAL OF THE ENGINEER (SEE SPECIAL PROVISIONS).
 - TRAFFIC TO BE MAINTAINED ON ALL AIRPORT PAVEMENTS AND PUBLIC ROADWAYS AT ALL TIMES.
 - CONTRACTOR SHALL HAVE ACCESS TO THE SITE USING THE EXISTING HAUL ROUTE. MAINTENANCE OF THE ROUTE SHALL BE INCIDENTAL TO THE CONTRACT. AT COMPLETION OF PROJECT, CONTRACTOR SHALL RE-BLADE ROUTE TO SATISFACTION OF THE RESIDENT ENGINEER.

GENERAL NOTES

PROJECT DESCRIPTION
 THIS PROJECT IS TO COMPLETE GRADING AND DRAINAGE FOR THE NEW TAXIWAY C AND REPLACED APRON AT LAKE IN THE HILLS AIRPORT INCLUDING, AMONG OTHER INCIDENTAL WORK, THE FOLLOWING ITEMS:

- PLACEMENT OF TEMPORARY SOIL EROSION CONTROL MEASURES
- CLEARING AND GRUBBING
- EARTH EMBANKMENT, INCLUDING FURNISHED BORROW
- INSTALLATION OF A STORM SEWER SYSTEM
- INSTALLATION OF CHAIN LINK FENCING
- TOPSOILING, SEEDING AND MULCHING

PROTECTION OF EXISTING AIRPORT FACILITIES
 THE CONTRACTOR IS TO BE RESPONSIBLE FOR THE PROTECTION OF EXISTING UNDERGROUND AND OVERHEAD UTILITIES AND LIGHTING EQUIPMENT; DRIVEWAY AND ROAD PAVEMENT AND SHOULDERS; RUNWAY, TAXIWAY AND APRON PAVEMENTS AND SHOULDERS; RUNWAY, TAXIWAY AND AIRPORT LIGHTING EQUIPMENT; AND SEEDED AND TURFED AREAS THAT ARE UTILIZED IN OR AFFECTED BY THE CONTRACTOR'S ACTIVITIES. ITEMS DAMAGED BY THE CONTRACTOR ARE TO BE REPAIRED AT CONTRACTOR'S EXPENSE AND TO THE SATISFACTION OF AIRPORT MANAGER AND THE OWNER'S REPRESENTATIVE.

IN ADDITION, WHEN CONDITIONS DICTATE OR AS DETERMINED BY THE AIRPORT MANAGER OR THE OWNER'S REPRESENTATIVE, THE CONTRACTOR SHALL BE REQUIRED TO USE A PICK-UP TYPE SWEEPER FOR PAVEMENTS IN ALL ACTIVE CONSTRUCTION AREAS. THE CONTRACTOR WILL BE REQUIRED TO HAVE A SWEEPER AVAILABLE FOR USE AT ALL TIMES. THE COST OF SWEEPING SHALL BE CONSIDERED INCIDENTAL TO THE CONTRACT.

CONTRACTOR'S ACCESS AND TEMPORARY FACILITIES
 CONTRACTOR'S ACCESS TO THE PROJECT WHEN ON AIRPORT PROPERTY IS SHOWN ON THIS SHEET. CONTRACTOR'S ACCESS TO THE AIRPORT ITSELF IS TO BE PROVIDED BY PUBLIC RIGHTS-OF-WAY. THE CONTRACTOR IS TO SECURE ALL NECESSARY PERMITS FOR THE USE OF ANY PUBLIC RIGHTS-OF-WAY AND IS TO MAINTAIN TRAFFIC ON THESE PUBLIC ROADS AT ALL TIMES, WITH THE COSTS OF PERMITTING, CLEANING AND REPAIRING OF PAVEMENT DAMAGED BY CONTRACTOR'S ACTIVITIES INCIDENTAL TO THE CONTRACT. USE OF AND REPAIRS TO ANY PUBLIC FACILITIES ARE TO BE COMPLETED TO THE SATISFACTION OF THE FACILITY'S OWNER.

THE CONTRACTOR IS TO PROVIDE AN EQUIPMENT STORAGE AND PARKING AREA AT THE LOCATION SHOWN ON THIS SHEET. IT IS THE CONTRACTOR'S RESPONSIBILITY TO MAINTAIN HE STORAGE AREA DURING CONSTRUCTION AND TO RESTORE THE AREAS AT PROJECT COMPLETION TO CONDITIONS SUITABLE TO THE AIRPORT MANAGER AND THE OWNER'S REPRESENTATIVE. AT THE AIRPORT MANAGER'S DISCRETION, THE TEMPORARY FACILITIES MAY REMAIN, BUT THEY MUST BE LEFT IN CONDITIONS SUITABLE TO THE AIRPORT MANAGER. THE COST OF PROVIDING, MAINTAINING AND RESTORING THE TEMPORARY FACILITIES IS INCIDENTAL TO THE CONTRACT.

RESPONSIBILITY FOR EXISTING UTILITIES
 THE LOCATION, SIZE AND/OR TYPE OF MATERIAL OF EXISTING UNDERGROUND OR OVERHEAD UTILITIES AS MAY BE INDICATED ON THESE CONSTRUCTION PLANS IS NOT REPRESENTED AS BEING ACCURATE, SUFFICIENT OR COMPLETE. NEITHER THE OWNER NOR THE PROJECT ENGINEER HAVE INDEPENDENTLY VERIFIED THIS INFORMATION AND NEITHER ASSUMES ANY RESPONSIBILITY WHATSOEVER IN RESPECT TO THE ACCURACY, SUFFICIENCY OR COMPLETENESS OF THE INFORMATION AND GIVE NO EXPRESSED OR IMPLIED GUARANTEE THAT ANY CONDITIONS INDICATED ARE REPRESENTATIVE OF ACTUAL CONDITIONS TO BE ENCOUNTERED.

IT SHALL BE THE CONTRACTOR'S RESPONSIBILITY TO DETERMINE THE ACTUAL LOCATION OF ALL SUCH FACILITIES, INCLUDING SERVICE CONNECTIONS TO UNDERGROUND UTILITIES. PRIOR TO CONSTRUCTION, THE CONTRACTOR SHALL NOTIFY ALL UTILITY COMPANIES AND AGENCIES OF HIS CONSTRUCTION PLANS AND SHALL OBTAIN FROM EACH PARTY DETAILED INFORMATION AND ASSISTANCE RELATIVE TO THE LOCATION OF ALL UTILITIES AND THE WORKING SCHEDULE OF ANY REMOVALS OR ADJUSTMENTS REQUIRED OF THE UTILITY. THE CONTRACTOR SHALL CONTACT J.U.L.I.E. (PHONE 800-892-0123) TO ASSIST IN THE ABOVE.

THE CONTRACTOR SHALL PROTECT ANY FACILITIES TO THE SATISFACTION OF THE UTILITY OR OWNING-AGENCY WITH THE COST OF ANY REQUIRED PROTECTION TO BE INCIDENTAL TO THE CONTRACT. IN THE EVENT A UTILITY LINE OR SERVICE IS UNEXPECTEDLY ENCOUNTERED DURING CONSTRUCTION, THE CONTRACTOR SHALL IMMEDIATELY NOTIFY THE OWNER'S REPRESENTATIVE AND THE UTILITY COMPANY OR AGENCY OF JURISDICTION. ANY SUCH UTILITIES DISTURBED BY THE CONTRACTOR'S OPERATIONS SHALL BE RESTORED TO SERVICE AT ONCE.

EXISTING BENCHMARKS
PRIMARY PROJECT BENCHMARKS, TO BE RELOCATED IN 2011, ARE AS FOLLOWS:

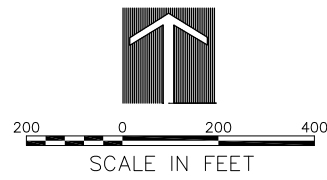
△ B.M.1653	NGS PID NUMBER 1653 N 2017797.29 E 986934.38 ELEV. 886.92	△ B.M.654	NGS PID NUMBER 654 N 2017913.28 E 987586.05 ELEV. 884.94
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SECONDARY PROJECT BENCHMARKS, IF PRIMARY BENCHMARKS HAVE NOT BEEN RELOCATED, ARE AS FOLLOWS:

△ B.M.152	NGS PID NUMBER NH0152 NAVD 88 (ADJUSTED 6/1991) ELEVATION 886.80
△ B.M.153	NGS PID NUMBER NH0153 NAVD 88 (ADJUSTED 6/1991) ELEVATION 886.58

LOCATION - SET VERTICALLY IN THE NORTH FACE OF THE NORTHWEST CORNER OF CONCRETE FOUNDATION OF THE NORTH ONE OF TWO LARGE CONCRETE BLOCK HANGARS, 1 1/2 FEET EAST OF THE NORTHWEST CORNER, 1 FOOT ABOVE THE LEVEL OF THE GROUND, AND ABOUT LEVEL WITH THE ENTRANCE DRIVE.

LOCATION - SET VERTICALLY IN THE WEST FACE OF THE NORTHWEST CORNER OF THE CONCRETE FOUNDATION OF THE SOUTH ONE OF TWO LARGE CONCRETE BLOCK HANGARS, 1 FOOT SOUTH OF THE NORTHWEST CORNER, AND 1/2 FOOT ABOVE THE LEVEL OF CONCRETE RAMP.



PROJECT IS LOCATED IN
 EAST ONE-HALF OF RANGE 8 EAST, TOWNSHIP 43 NORTH,
 ALGONQUIN TOWNSHIP, MCHENRY COUNTY

APR 28, 2011 3:52 PM HAUSM00682
 I:\09\JOBS\00841\09A0143\DRAWINGS\03-SITE PLAN.DWG



LAYOUT	LDH	3/05/10
DRAWN	SJM	3/05/10
REVIEWED	RMH	4/13/11



Hanson Professional Services Inc. 2011
Hanson Professional Services Inc.
815 Commerce Drive Suite 200
Oak Brook, Illinois 60523

CONSTRUCTION SAFETY NOTES AND DETAILS

REPLACE MAIN APRON, STAGE 1
GRADING AND DRAINAGE
IDA No. 3CK-4037 AIP No. 3-17-0112-B14

CONSTRUCTION AND SAFETY NOTES

SEQUENCE OF CONSTRUCTION

TO MINIMIZE DISRUPTIONS TO AIRPORT OPERATIONS, CONSTRUCTION OPERATIONS MUST BE CONTROLLED THROUGHOUT THE PROJECT'S DURATION AND WORK MUST BE COMPLETED EXPEDITIOUSLY. THE CONTRACTOR SHALL EXPEDITE WORK AT THOSE STAGES WHEN ACTIVE RUNWAYS, TAXIWAYS, APRONS, ROADWAYS OR PARKING LOTS MUST BE CLOSED TO MINIMIZE THE LENGTH OF TIME THAT AIRPORT OR ROADWAY OPERATIONS ARE RESTRICTED. THE CONTRACTOR SHALL FURNISH A CONSTRUCTION STAGING PLAN DETAILING THE SEQUENCING OF THE CONTRACTOR'S WORK THROUGHOUT THE PROJECT AT THE PRE-CONSTRUCTION MEETING FOR APPROVAL OF THE PROJECT ENGINEER AND THE AIRPORT OWNER. ANY AND ALL CHANGES TO THE CONSTRUCTION STAGING PLAN AFTER ITS APPROVAL THAT MAY BE REQUESTED BY THE CONTRACTOR MUST BE RE-APPROVED BY THE PROJECT ENGINEER AND AIRPORT OWNER. IT SHALL BE THE CONTRACTOR'S RESPONSIBILITY TO PROVIDE SUFFICIENT ADVANCE NOTICE OF ANY PROPOSED STAGING CHANGE TO PERMIT CONSIDERATION AND APPROVAL BY THE PROJECT ENGINEER AND AIRPORT OWNER. THE CONTRACTOR SHALL NOT BE ENTITLED TO ANY EXTRA COMPENSATION NOR EXTENSION TO THE CONTRACT TIME BECAUSE OF A STAGING REQUEST NOR FOR ANY TIME NECESSARY IN RECEIVING THE REQUIRED APPROVALS.

LATHING AND WARNING TAPE

THE PROJECT WILL REQUIRE THE PLACEMENT OF LATHING AND WARNING TAPE TO DELINEATE THE WORK AREA FROM ACTIVE AIRPORT OPERATIONS AREAS. IT SHALL BE THE CONTRACTOR'S RESPONSIBILITY TO PROVIDE, PLACE AND MAINTAIN LATHING AND WARNING TAPE SHOWN ON SHEET 3, AND IN DETAIL A, THIS SHEET, AND AS DIRECTED BY THE RESIDENT ENGINEER AND THE AIRPORT DIRECTOR. THE CONTRACTOR WILL FURNISH, PLACE, MAINTAIN AND RELOCATE THE LATHING AND WARNING TAPE AS REQUIRED. THE COST OF THESE ITEMS, AND THEIR MAINTENANCE, IS TO BE INCIDENTAL TO THE CONTRACT.

TEMPORARY BARRICADES ON AIRFIELD

THE PROJECT WILL REQUIRE THE PLACEMENT OF BARRICADES TO DELINEATE PORTIONS OF THE CONSTRUCTION AREA AND TO EFFECT TEMPORARY CLOSURES OF ACTIVE TAXIWAYS. IT WILL BE THE CONTRACTOR'S RESPONSIBILITY TO FURNISH, PLACE AND MAINTAIN BARRICADES AS SHOWN ON SHEET 3, AND IN DETAIL B, THIS SHEET, AND AS DIRECTED BY THE RESIDENT ENGINEER AND AIRPORT DIRECTOR. THE COST OF THESE ITEMS, AND THEIR MAINTENANCE, IS TO BE INCIDENTAL TO THE CONTRACT. ANY WORK THAT REQUIRES PORTIONS OF AN ACTIVE TAXIWAY OR APRON TO BE CLOSED MUST BE COMPLETED EXPEDITIOUSLY TO MINIMIZE DISRUPTION TO AIRCRAFT OPERATIONS.

MAINTENANCE OF RUNWAY AND TAXIWAY SAFETY AREAS

OPEN TRENCHES, EXCAVATIONS AND STOCKPILED MATERIAL AT THE CONSTRUCTION SITE SHALL BE DELINEATED WITH THE USE OF BARRICADES DURING HOURS OF RESTRICTED VISIBILITY AND/OR DARKNESS. NO OPEN TRENCHES SHALL BE ALLOWED WITHIN THE EXISTING RUNWAY SAFETY AREA (RSA) OR THE EXISTING TAXIWAY SAFETY AREA (TSA) WHEN THE RUNWAY OR TAXIWAY IS OPEN TO AIR TRAFFIC (INCLUDING OVERNIGHT). THE RSA IS DEFINED AS 75 FEET FROM THE RUNWAY CENTERLINE AND 300 FEET FROM THE END OF THE RUNWAY. THE TSA IS MEASURED AT 39.5 FEET FROM THE TAXIWAY CENTERLINE. NO VERTICAL DROP OF GREATER THAN 3-INCHES IN HEIGHT FROM PAVEMENT EDGE TO EARTH GRADE OR EARTH GRADE WITHIN THE RSA OR TSA WILL BE PERMITTED WHEN THE RUNWAY OR TAXIWAY IS OPEN TO AIR TRAFFIC. THE CONTRACTOR WILL HAVE STEEL PLATES ON-SITE TO ALLOW FOR THE RAPID COVERING OF TRENCHES OR EARTH DROPS IN THE EVENT OF UNEXPECTED WORK STOPPAGES FOR WEATHER OR AIRPORT EMERGENCIES.

RUNWAY CLOSURE

NO RUNWAY CLOSURES WILL BE ALLOWED AS PART OF THIS PROJECT.

HAUL ROUTE

THE CONTRACTOR SHALL MAINTAIN AN EXISTING HAUL ROUTE AS SHOWN IN THE SITE PLAN AND DETAIL C THIS SHEET. THE COST OF MAINTAINING AND RESTORING THE HAUL ROUTE AT PROJECT END SHALL BE INCIDENTAL TO THE CONTRACT. AT THE RESIDENT ENGINEER'S OPTION, THE HAUL ROUTE CAN REMAIN.

VEHICULAR TRAFFIC CONTROL

IT SHALL BE THE CONTRACTOR'S RESPONSIBILITY TO PROVIDE AND PLACE ROAD WARNING SIGNS AND BARRICADES ON THE CONSTRUCTION ENTRANCE PRIOR TO THE START OF CONSTRUCTION. THE CONTRACTOR SHALL MAINTAIN THE ITEMS AS REQUIRED, COST INCIDENTAL TO THE CONTRACT.

THE CONTRACTOR SHALL KEEP ALL OF HIS EQUIPMENT AND PERSONNEL AT LEAST 15 FEET FROM THE EDGE OF ANY ACTIVE ROADWAY OR AUTO PARKING PAVEMENT. WHEN HIS ACTIVITIES REQUIRE WORKING WITHIN 15 FEET OF THE ROAD/PAVEMENT EDGE, THE CONTRACTOR SHALL PROVIDE FOR TRAFFIC CONTROL IN ACCORDANCE WITH IDOT SPECIFICATIONS (HIGHWAY STANDARDS).

AIRFIELD OPERATIONAL SAFETY DURING CONSTRUCTION

THE CONTRACTOR SHALL REMAIN WITHIN THE CONSTRUCTION LIMITS LINE SHOWN IN THE PLANS. WHEN OUTSIDE THESE LIMITS, ALL CONTRACTOR ACTIVITIES SHALL REMAIN MORE THAN 250 FEET FROM THE RUNWAY CENTERLINE AND 700 FEET FROM THE RUNWAY END. FOR WORK NEAR TAXIWAYS AND APRONS, THE CONTRACTOR'S PERSONNEL AND EQUIPMENT MUST REMAIN AT LEAST 65.5 FEET FROM ACTIVE TAXIWAYS AND 44.5 FEET FROM ACTIVE T-HANGAR TAXILANES, AND TEN (10) FEET FROM ACTIVE APRONS. WHEN CONSTRUCTION OPERATIONS MUST BE CONDUCTED WITHIN THESE SEPARATIONS, THE PAVEMENT MUST BE CLOSED TO AIRCRAFT ACTIVITY BY THE CONTRACTOR BY PROVIDING TEMPORARY BARRICADES AS SHOWN IN THE PLANS, AND IN THE CASE OF RUNWAY PAVEMENTS, CLOSED RUNWAY MARKERS.

WHEN IT IS NECESSARY FOR CONSTRUCTION VEHICLES TO OPERATE ON OR WITHIN THESE LIMITS, THE RUNWAY, TAXIWAYS OR APRON MUST BE CLOSED. THE CONTRACTOR WILL PROVIDE POSITIVE CONTROL OF CONSTRUCTION VEHICLES USING RADIO-EQUIPPED FLAGGERS. ALL CONTRACTOR'S EQUIPMENT USED IN ACTIVE AIRPORT OPERATIONS AREAS SHALL BE EQUIPPED WITH A FAA-STANDARD FLAG, AS REFERENCED IN FAA AC 150/5370-2, CURRENT ISSUE. AIRCRAFT SHALL HAVE THE RIGHT-OF-WAY. CONSTRUCTION VEHICLES SHALL NOT CROSS AN ACTIVE RUNWAY. THE COST OF ALL TRAFFIC CONTROL, BOTH WITHIN AND OUTSIDE OF AIRPORT OPERATIONS AREAS, IS TO BE INCIDENTAL TO THE CONTRACT.

WHEN NOT IN USE AND DURING NONWORKING HOURS, CONTRACTOR'S EQUIPMENT SHALL BE PARKED WITHIN THE CONTRACTOR'S EQUIPMENT STORAGE AND PARKING AREAS. THE EQUIPMENT STORAGE AND PARKING AREAS ARE TO BE LOCATED AS SHOWN ON THE SITE PLAN, SHEET 3. THE CONTRACTOR WILL BE RESPONSIBLE FOR MAINTAINING THE CONSTRUCTION ENTRANCE IN GOOD CONDITION. THE COST OF MAINTAINING THE CONSTRUCTION ENTRANCE IS TO BE INCIDENTAL TO THE CONTRACT.

BEFORE REOPENING TEMPORARILY CLOSED RUNWAYS, TAXIWAYS OR ROADWAYS, THE CONTRACTOR SHALL INSPECT AND CLEAN, AS NECESSARY, THE PAVEMENT TO ASSURE THAT NO MATERIALS OR OBJECTS THAT MAY DAMAGE AIRCRAFT OR VEHICLES REMAIN. ANY REQUIRED CLEANING SHALL BE TO THE SATISFACTION OF THE RESIDENT ENGINEER AND AIRPORT OWNER AND IS INCIDENTAL TO THE CONTRACT.

ALL CONTRACTOR EQUIPMENT IS LIMITED TO A HEIGHT OF 25 FEET.

NOTIFICATIONS BY CONTRACTOR

THE CONTRACTOR SHALL NOTIFY THE RESIDENT ENGINEER AND AIRPORT OWNER 7 DAYS IN ADVANCE OF THE CONTRACTOR'S CLOSING OF ACTIVE TAXIWAYS. THE DATE, TIME AND SCHEDULED DURATION OF THE CLOSING MUST BE APPROVED BY THE RESIDENT ENGINEER AND THE AIRPORT OWNER. THE CONTRACTOR SHALL NOTIFY THE RESIDENT ENGINEER AND AIRPORT OWNER 72 HOURS IN ADVANCE OF THE CONTRACTOR'S CLOSING OF OTHER ACTIVE ROADWAYS, AIRFIELD OR ROADWAY LIGHTING CIRCUITS, OR OTHER AIRPORT FACILITIES.

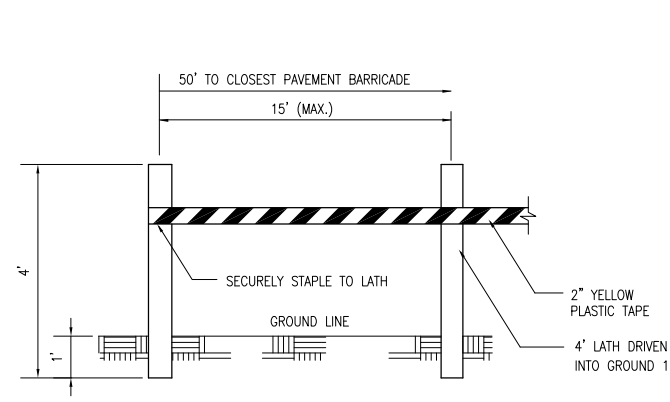
CONTRACTOR'S USE OF SITE

THE CONTRACTOR SHALL NOT OPERATE WITHIN, ENCROACH UPON OR OBSTRUCT AIRPORT OPERATIONAL AREAS, INCLUDING ACTIVE RUNWAY, TAXIWAYS AND APRON SAFETY AREAS, OBJECT AND OBSTACLE FREE ZONES, RUNWAY PROTECTION ZONES AND AIRPORT IMAGINARY SURFACES AS DEFINED IN FEDERAL AVIATION REGULATIONS (FAR) PART 77, "OBJECTS AFFECTING NAVIGABLE AIRSPACE".

THE CONTRACTOR IS RESPONSIBLE FOR RESTORATION OF THE WORK AREA PRIOR TO BEGINNING WORK AT A NEW LOCATION.

UTILITY OUTAGES AND SHUTDOWNS

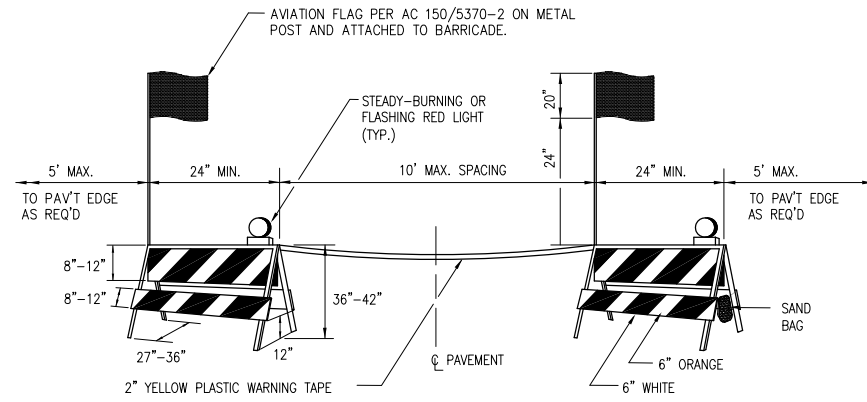
NO UTILITY SHUTDOWNS WILL BE REQUIRED AS PART OF THIS PROJECT.



MATERIALS ARE TO BE APPROVED BY ENGINEER PRIOR TO INSTALLATION. COST OF MATERIALS, INSTALLATION, RELOCATION AND MAINTENANCE OF LATHING AND WARNING TAPE IS TO BE INCIDENTAL TO THE CONTRACT.

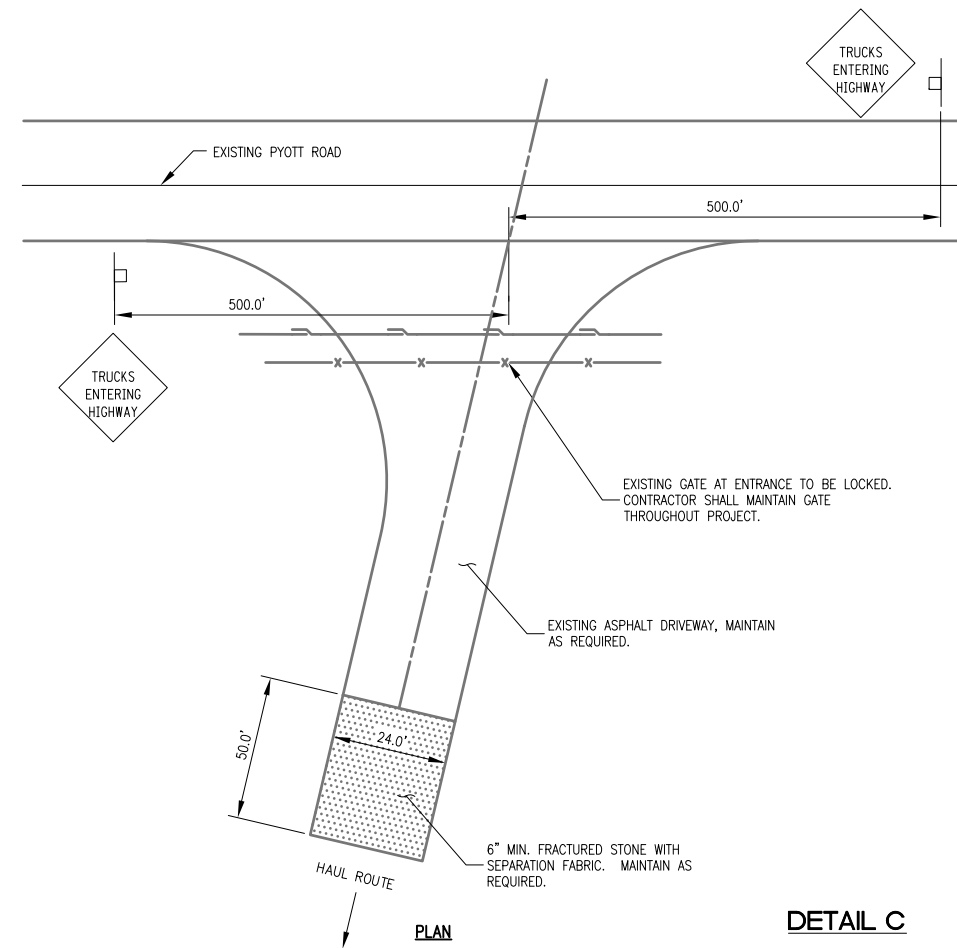
DETAIL A
LATHING AND WARNING TAPE

NTS



BARRICADES ARE TO BE OF IDOT TYPE I. A STEADY-BURNING OR FLASHING RED LIGHT FACING PASSING TRAFFIC IS TO BE MOUNTED ABOVE THE TOP OF EACH BARRICADE FRAME. THE BARRICADE IS TO BE STABILIZED FROM WIND BY SANDBAGS PLACED ON THE FRAME OR OTHER METHODS APPROVED BY THE RESIDENT ENGINEER. NO PART OF THE REFLECTORIZED PORTION OF THE BARRICADE IS TO BE OBSTRUCTED IN ANY MANNER. COST OF FURNISHING, INSTALLING, RELOCATING, MAINTAINING AND REMOVING BARRICADES IS TO BE INCIDENTAL TO THE CONTRACT.

DETAIL B
PAVEMENT BARRICADES



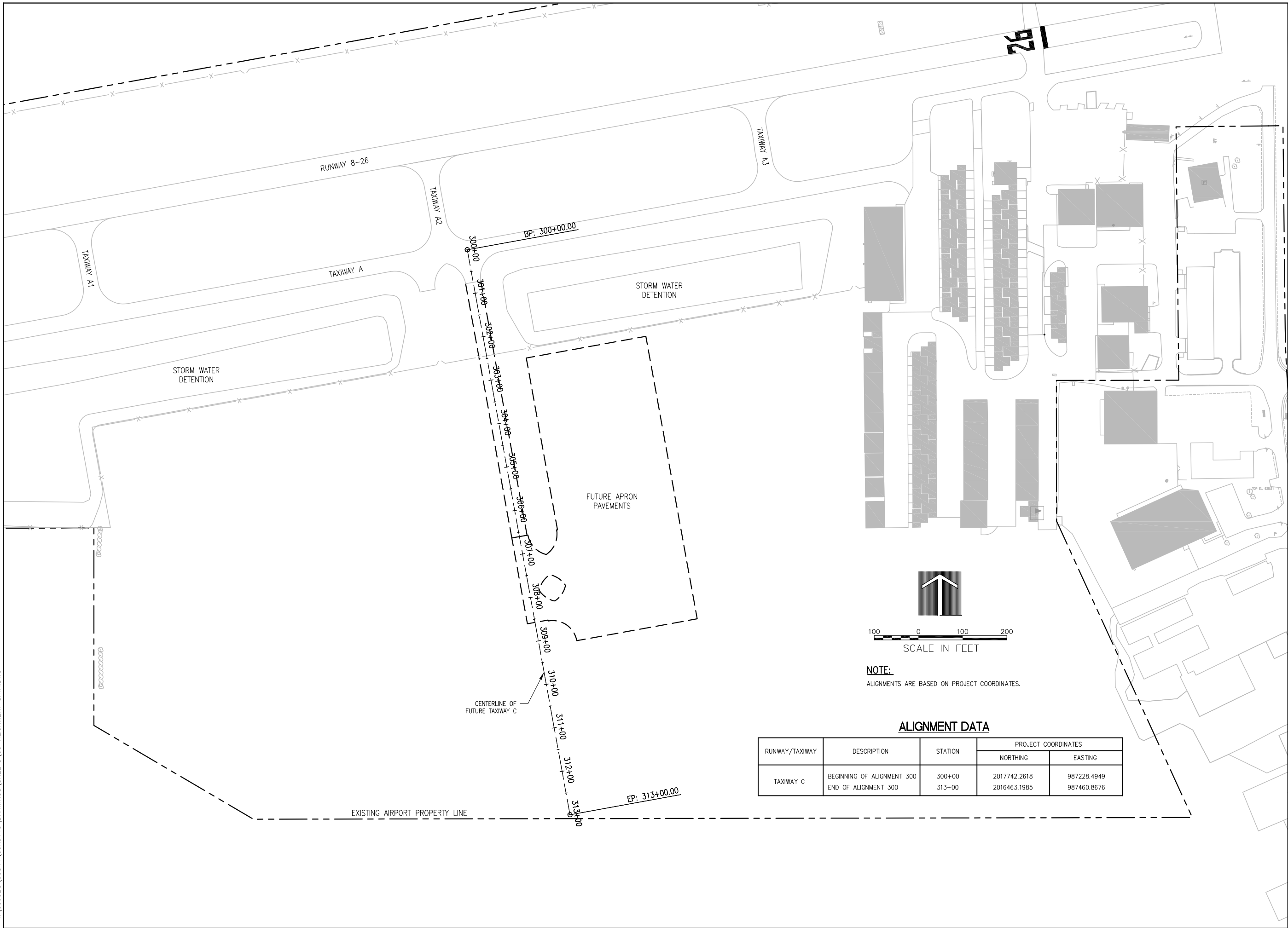
CONSTRUCTION ENTRANCE NOTES:

1. THE EXISTING ENTRANCE SHALL BE MAINTAINED IN A CONDITION WHICH WILL PREVENT TRACKING OR FLOWING OF SEDIMENT ONTO PUBLIC RIGHT-OF-WAYS. ALL SEDIMENT SPILLED, DROPPED, WASHED OR TRACKED ONTO PUBLIC RIGHT-OF-WAYS MUST BE REMOVED IMMEDIATELY.
2. CONTRACTOR SHALL FURNISH CONSTRUCTION SIGNS ON PYOTT ROAD AS SHOWN OR AS REQUIRED BY MCHENRY COUNTY DOT. COST OF SIGNS SHALL BE INCIDENTAL TO THE CONTRACT.
3. COST OF INSTALLING, MAINTAINING, REMOVING AND RESTORING ENTRANCE SHALL BE INCIDENTAL TO THE CONTRACT.

HAUL ROUTE NOTES:

1. EXISTING HAUL ROUTE TO BE MAINTAINED SO AS TO PROVIDE ACCESS TO THE SITE DURING WEATHER CONDITIONS AND AT THE LOCATION SHOWN IN THE SITE PLAN.
2. MAINTENANCE OF THE EXISTING HAUL ROUTE IS THE RESPONSIBILITY OF THE CONTRACTOR AND REQUIREMENTS FOR MAINTENANCE ARE AT THE DISCRETION OF THE RESIDENT ENGINEER.

DETAIL C
CONSTRUCTION ENTRANCE
AND HAUL ROUTE



NOTE:
 ALIGNMENTS ARE BASED ON PROJECT COORDINATES.

ALIGNMENT DATA

RUNWAY/TAXIWAY	DESCRIPTION	STATION	PROJECT COORDINATES	
			NORTHING	EASTING
TAXIWAY C	BEGINNING OF ALIGNMENT 300	300+00	2017742.2618	987228.4949
	END OF ALIGNMENT 300	313+00	2016463.1985	987460.8676

REVISION	DATE

VILLAGE OF LAKE IN THE HILLS
 600 Harvest Gate
 Lake in the Hills, Illinois 60156
 Telephone: 847.960.7410
 Fax: 847.960.7515

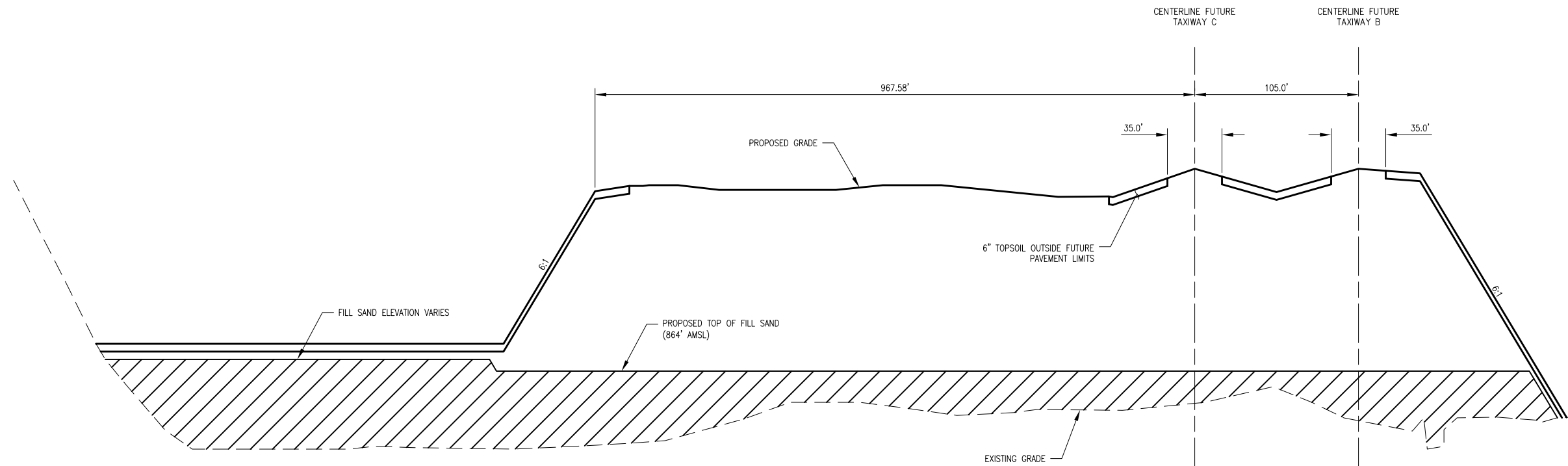


Hanson No.	09A0143
Filename	05-ALIGNMENT DATA.DWG
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Date	APRIL 22, 2011
LAYOUT	LDH 2/3/11
DRAWN	LDH 2/3/11
REVIEWED	RMH 4/13/11

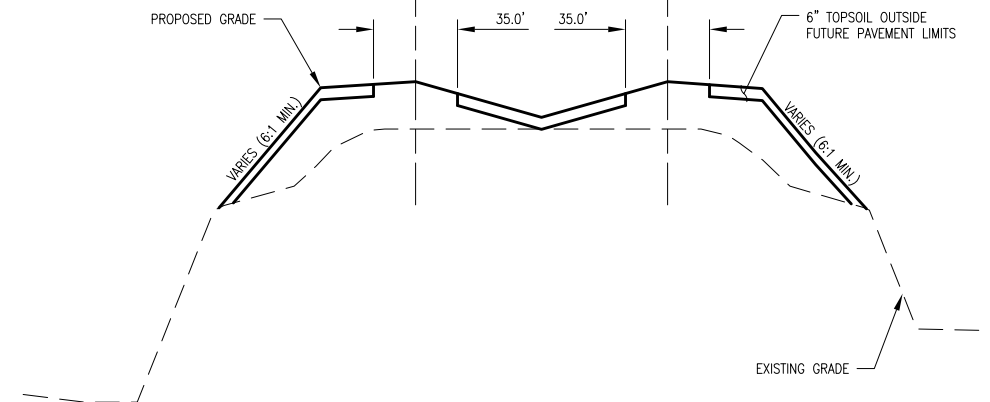
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Hanson Professional Services Inc.
 815 Commerce Drive Suite 200
 Oak Brook, Illinois 60523

ALIGNMENT DATA

**REPLACE MAIN APRON, STAGE 1
 GRADING AND DRAINAGE**
 IDA No. 3CK-4037 AIP No. 3-17-0112-B14



TYPICAL SECTION - FUTURE TAXIWAY B, C AND APRON
 (SECTION SHOWN LOOKING SOUTH)



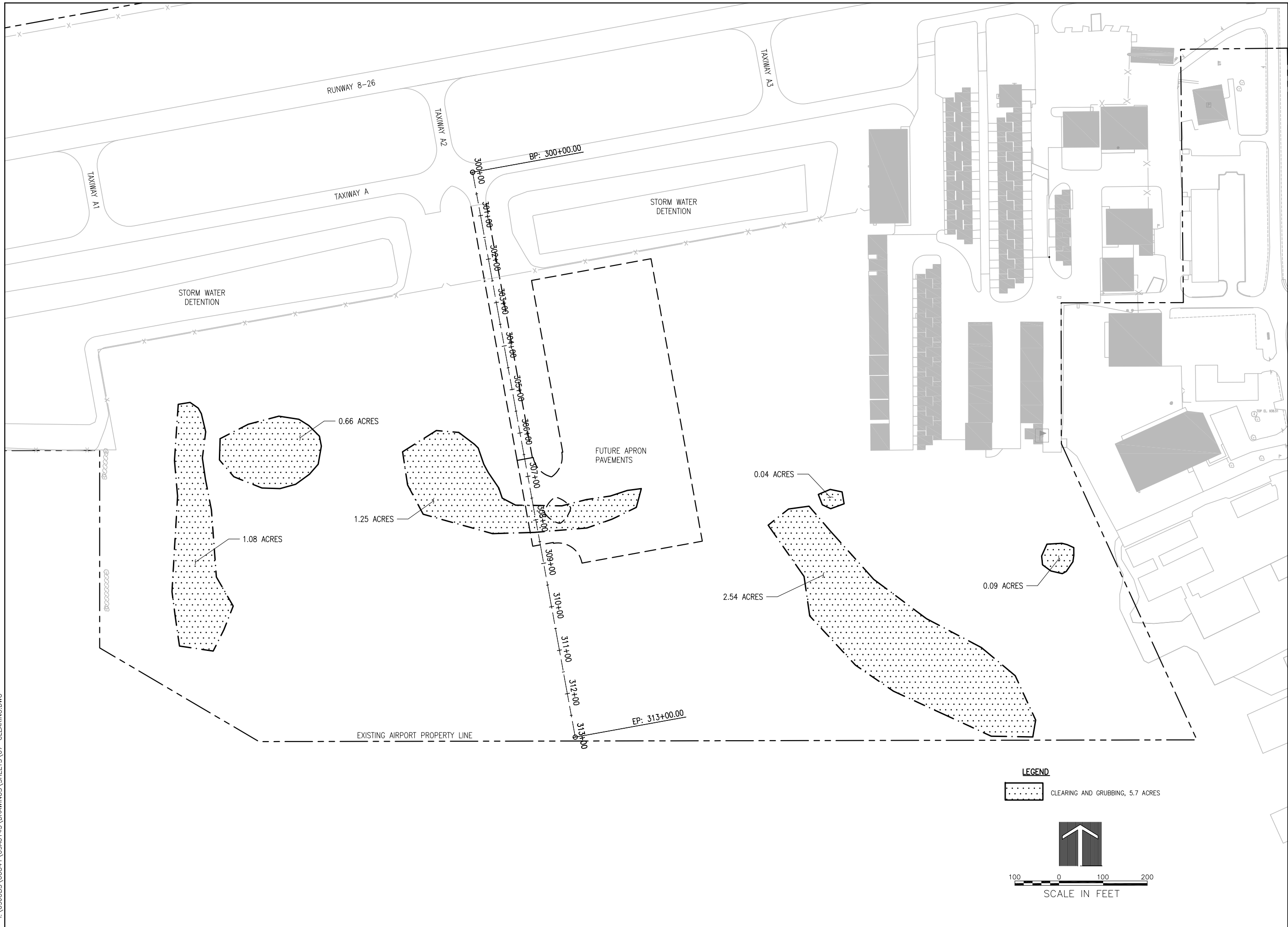
TYPICAL SECTION - FUTURE TAXIWAY B AND C
 (SECTION SHOWN LOOKING SOUTH)



LAYOUT	LDH	2/4/11
DRAWN	LDH	2/4/11
REVIEWED	RMH	4/13/11



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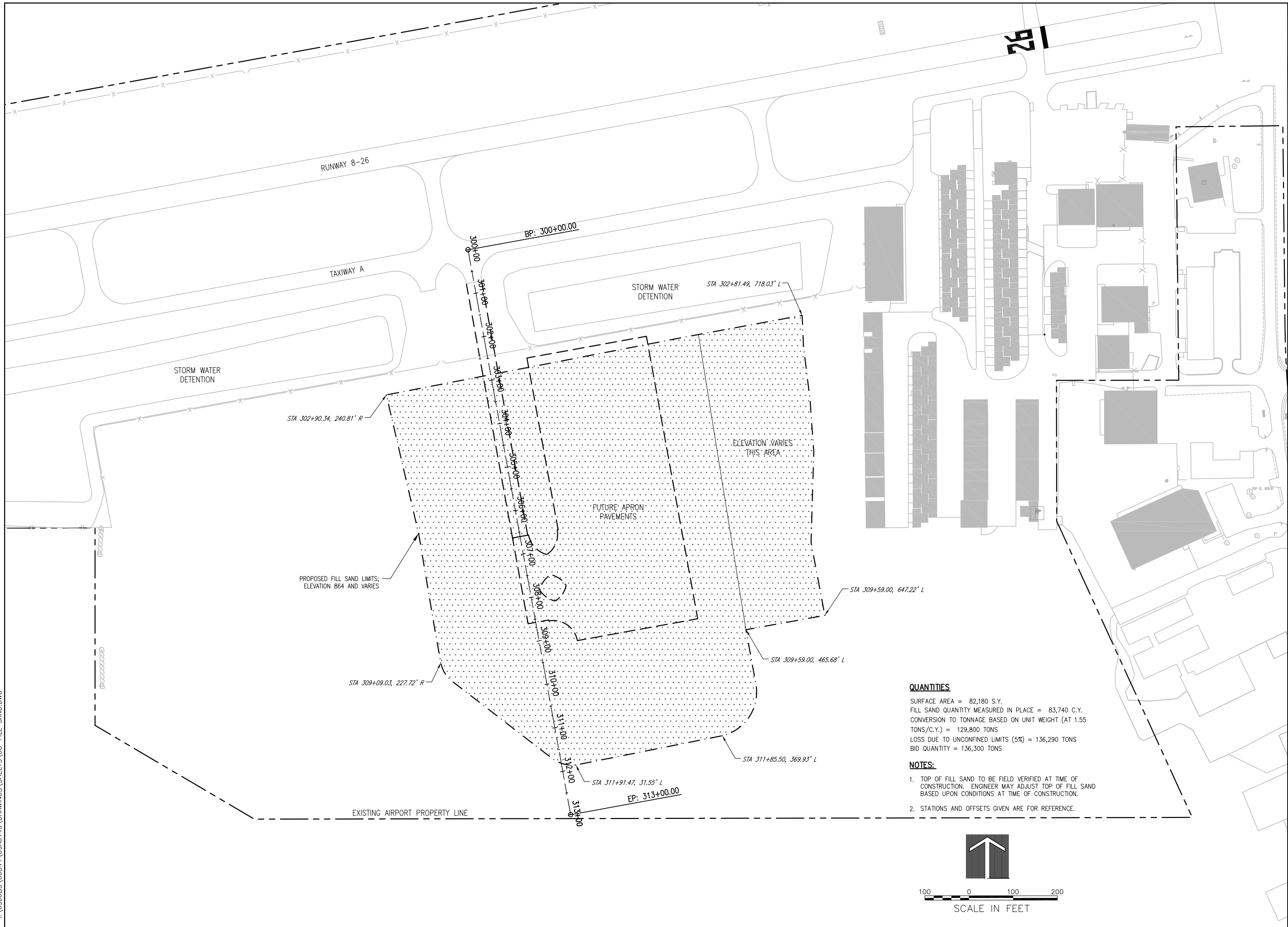
VILLAGE OF LAKE IN THE HILLS
 600 Harvest Gate
 Lake in the Hills, Illinois 60156 Telephone:
 847.960.7410
 Fax: 847.960.7515



Hanson No.	09A0143	LAYOUT	LDH	2/3/11
Filename	07-CLEARING.DWG	DRAWN	LDH	2/3/11
Scale	1"=100'	REVIEWED	RMH	4/13/11
Date	APRIL 22, 2011			

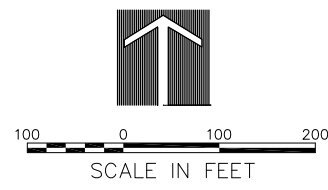
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CLEARING AND GRUBBING PLAN
 REPLACE MAIN APRON, STAGE 1
 GRADING AND DRAINAGE
 IDA No. 3CK-4037 AIP No. 3-17-0112-B14



QUANTITIES
 SURFACE AREA = 82,180 S.Y.
 FILL SAND QUANTITY MEASURED IN PLACE = 83,740 C.Y.
 CONVERSION TO TONNAGE BASED ON UNIT WEIGHT (AT 1.55 TONS/C.Y.) = 129,800 TONS
 LOSS DUE TO UNCONFINED LIMITS (5%) = 136,290 TONS
 BID QUANTITY = 136,300 TONS

NOTES:
 1. TOP OF FILL SAND TO BE FIELD VERIFIED AT TIME OF CONSTRUCTION. ENGINEER MAY ADJUST TOP OF FILL SAND BASED UPON CONDITIONS AT TIME OF CONSTRUCTION.
 2. STATIONS AND OFFSETS GIVEN ARE FOR REFERENCE.



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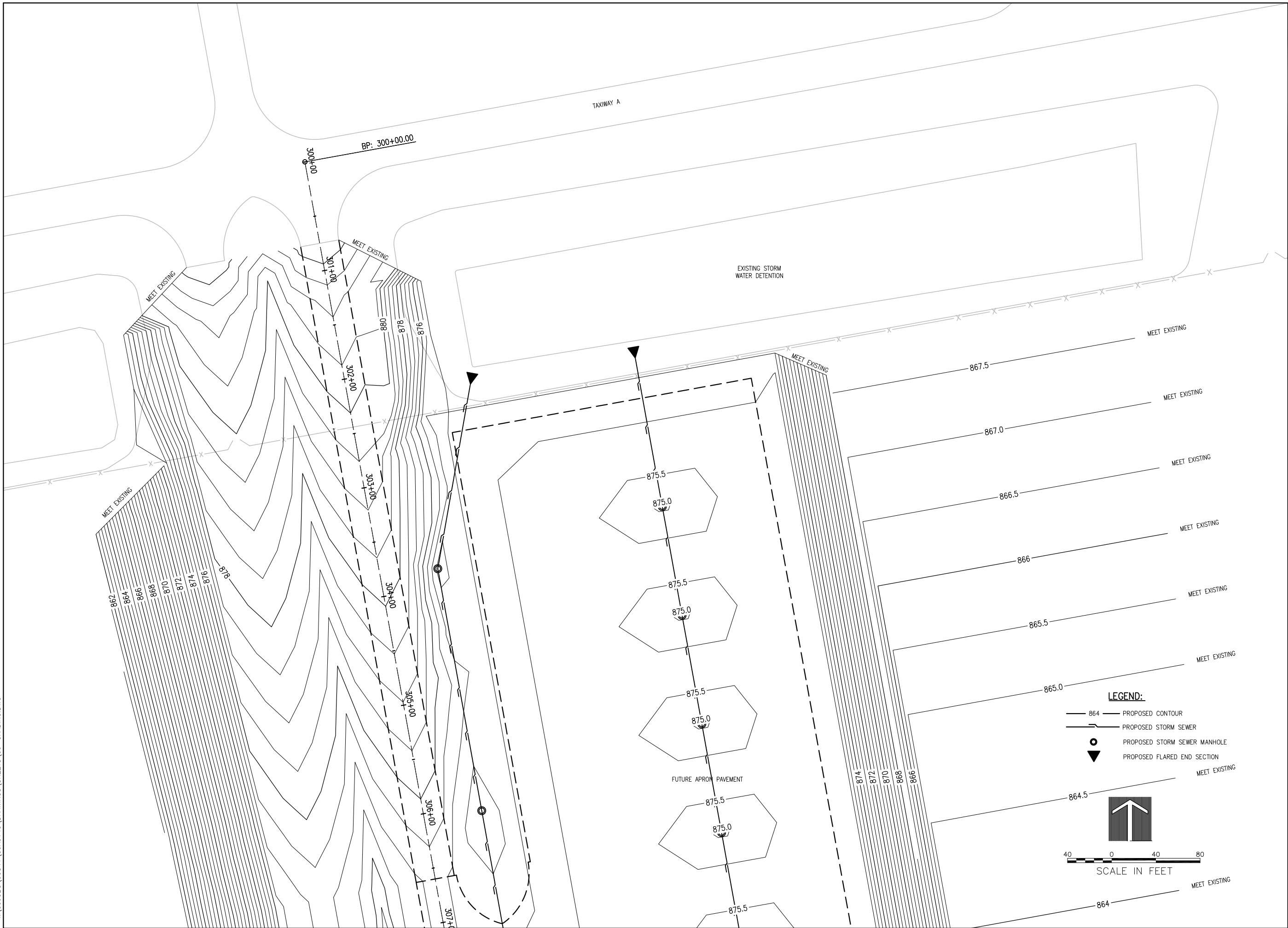


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Filename 08-FILL SAND.DWG	LDH	2/3/11
Scale 1"=100'	RMH	4/13/11
Date APRIL 22, 2011		
LAYOUT		
DRAWN		
REVIEWED		

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FILL SAND PLACEMENT PLAN
 REPLACE MAIN APRON, STAGE 1
 GRADING AND DRAINAGE
 IDA No. 3CK-4037 AIP No. 3-17-0112-B14

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LK009

DATE	REVISION

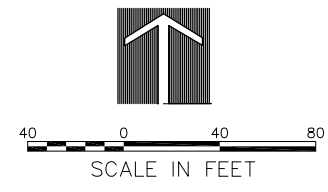
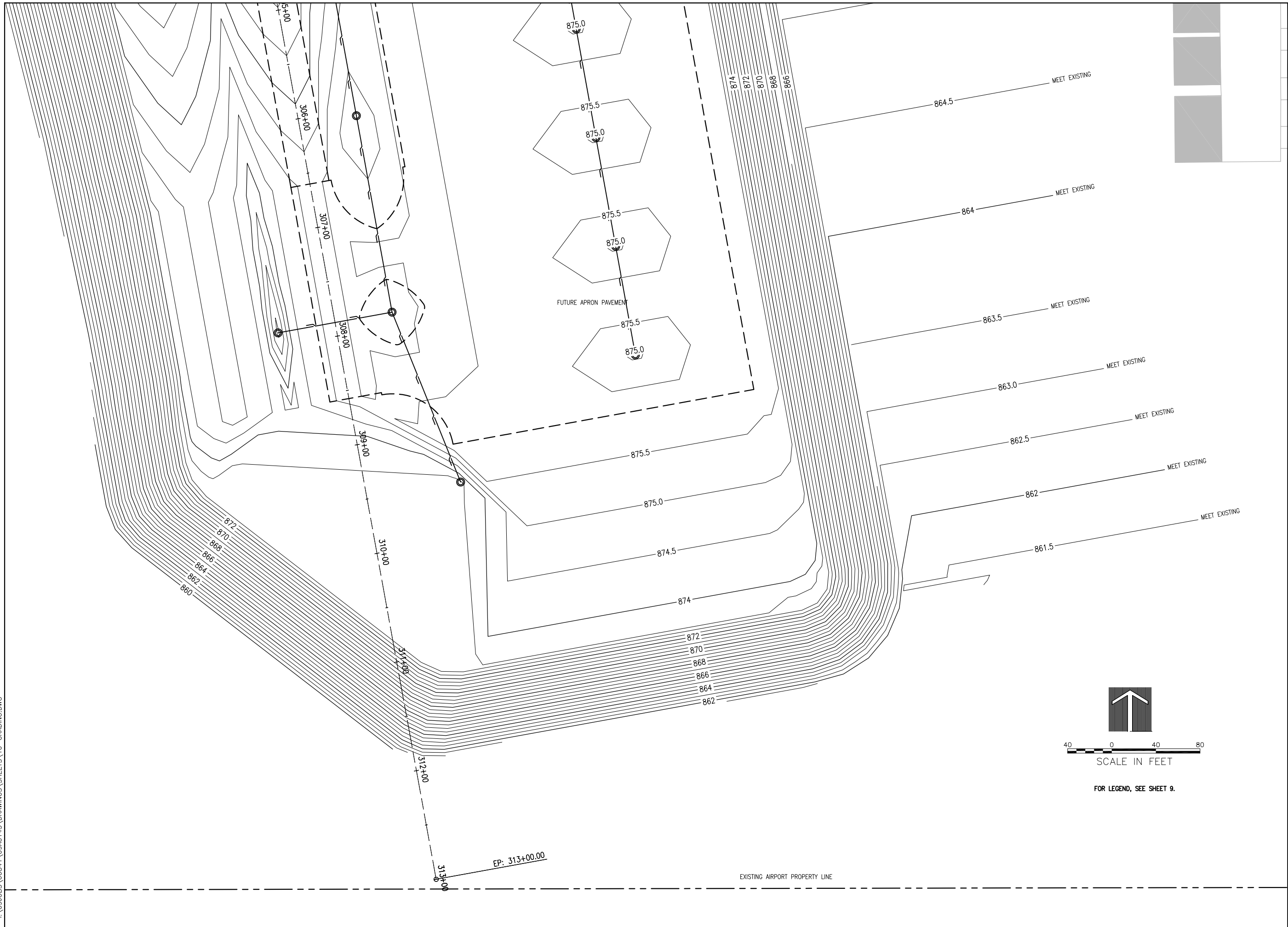
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Hanson No.	09A0143	LDH	2/4/11
Filename	09-GRADING.DWG	LDH	2/4/11
Scale	1"=40'	LDH	2/4/11
Date	APRIL 22, 2011	RMH	4/13/11
LAYOUT			
DRAWN			
REVIEWED			

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GRADING PLAN
 REPLACE MAIN APRON, STAGE 1
 GRADING AND DRAINAGE
 IDA No. 3CK-4037 AIP No. 3-17-0112-B/4



FOR LEGEND, SEE SHEET 9.

DATE	REVISION

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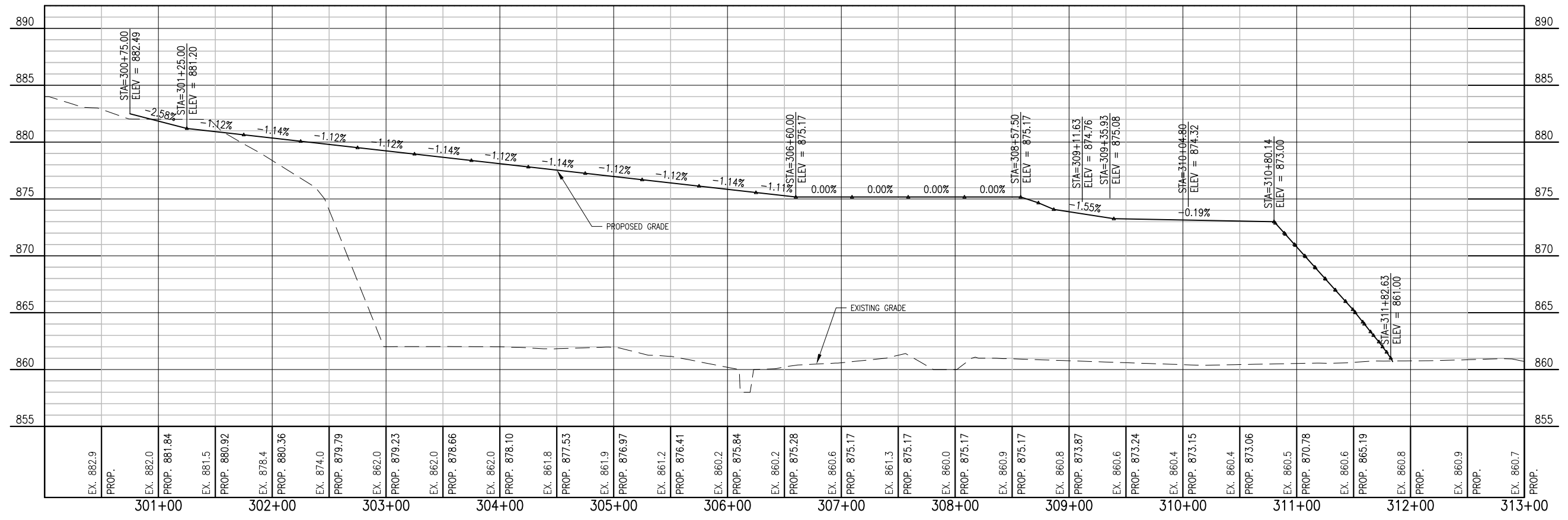
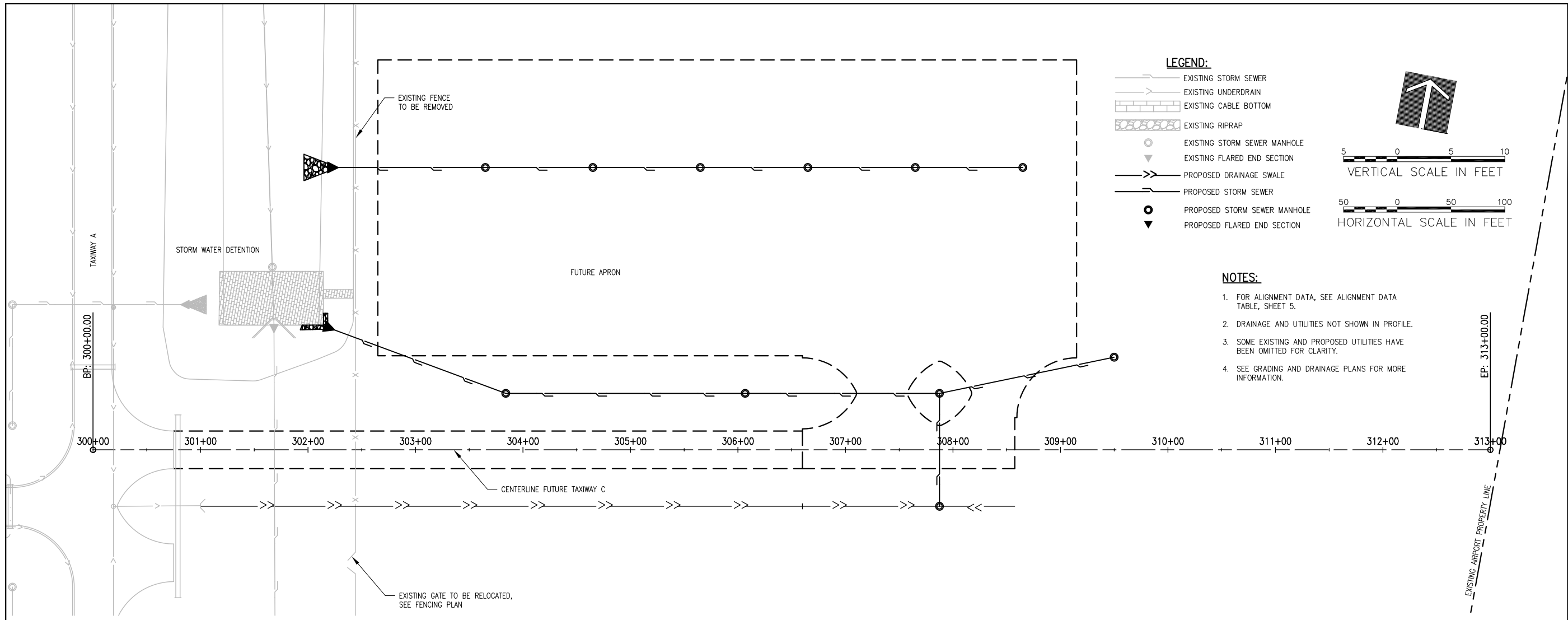


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				REVIEWED	RMH	4/13/11

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GRADING PLAN
 REPLACE MAIN APRON, STAGE 1
 GRADING AND DRAINAGE
 IDA No. 3CK-4037 AIP No. 3-17-0112-B14

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VILLAGE OF LAKE IN THE HILLS
 600 Harvest Gate
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Revision No.	Description	Drawn	Reviewed	Date
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6		LDH	LDH	2/4/11
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PLAN AND PROFILE

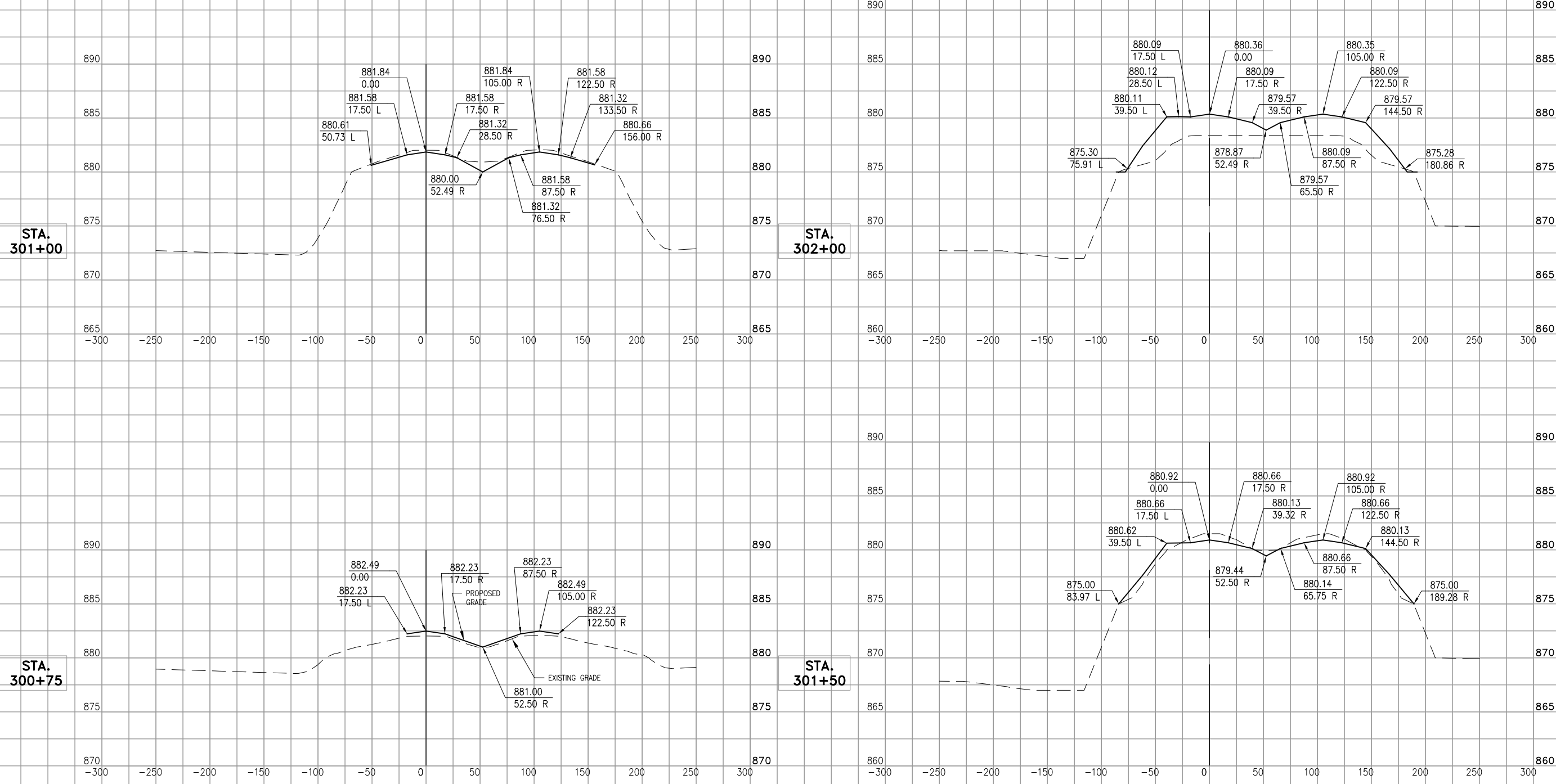
REPLACE MAIN APRON, STAGE 1
 GRADING AND DRAINAGE
 IDA No. 3CK-4037 AIP No. 3-17-0112-B14

EARTHWORK SUMMARY IN CUBIC YARDS			
CUT		CUT	FILL
On-Site	Unclassified Excavation	785	
FILL			
On-Site	Unclassified Excavation		785
	Less Shrink (10%)		(79)
	Subtotal		707
Off-Site			
	Fill Sand Placement (1)	83,740	
	Borrow Excavation (2)	218,570	83,740
	Topsail (3)	12,620	218,570
			12,620
TOTAL FILL (VOLUME MEASURED IN PLACE)			315,637

(1) QUANTITY IS IN CUBIC YARDS BASED ON AVERAGE END AREAS. ITEM IS PAID UNDER TONS, AS A PORTION OF THE OUTER LIMITS OF THE PLACEMENT IS UNCONFINED, A LOSS OF 5 PERCENT IS INCLUDED IN THE BID QUANTITY.

(2) ITEM IS MEASURED IN PLACE WITHIN CONSTRUCTION LIMITS. CONTRACTOR SHALL ACCOUNT FOR SHRINKAGE FROM COMPACTION IN HIS BID.

(3) MEASURED IN-PLACE AT 6-INCH THICKNESS.



DATE	REVISION

VILLAGE OF LAKE IN THE HILLS
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Hanson No. 09A0143	Filename 12-CROSS SECTIONS.DWG	Scale 1"=50'	Date APRIL 22, 2011
LAYOUT	JTP	2/24/11	
DRAWN	LDH	3/16/11	
REVIEWED	RMH	4/13/11	

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CROSS SECTIONS
 STA. 300+75 TO STA. 302+00
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 GRADING AND DRAINAGE
 IDA No. 3CK-4037 AIP No. 3-17-0112-B14

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Hanson No. 09A0143
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 Date APRIL 22, 2011

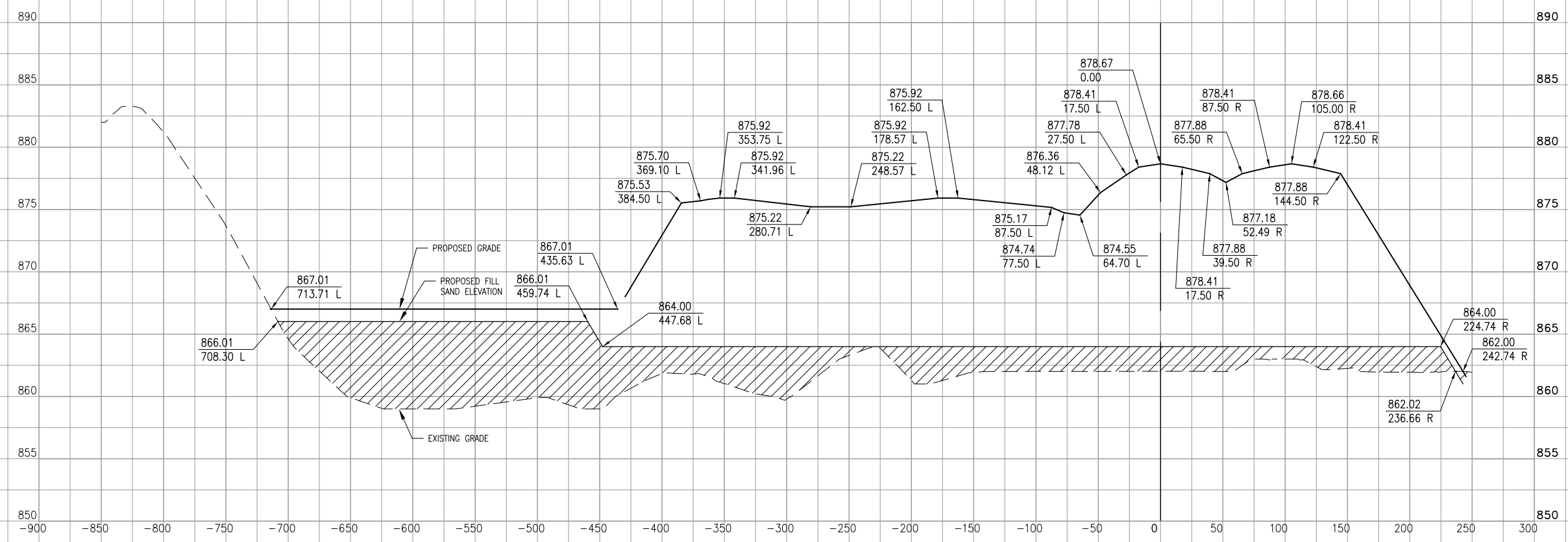
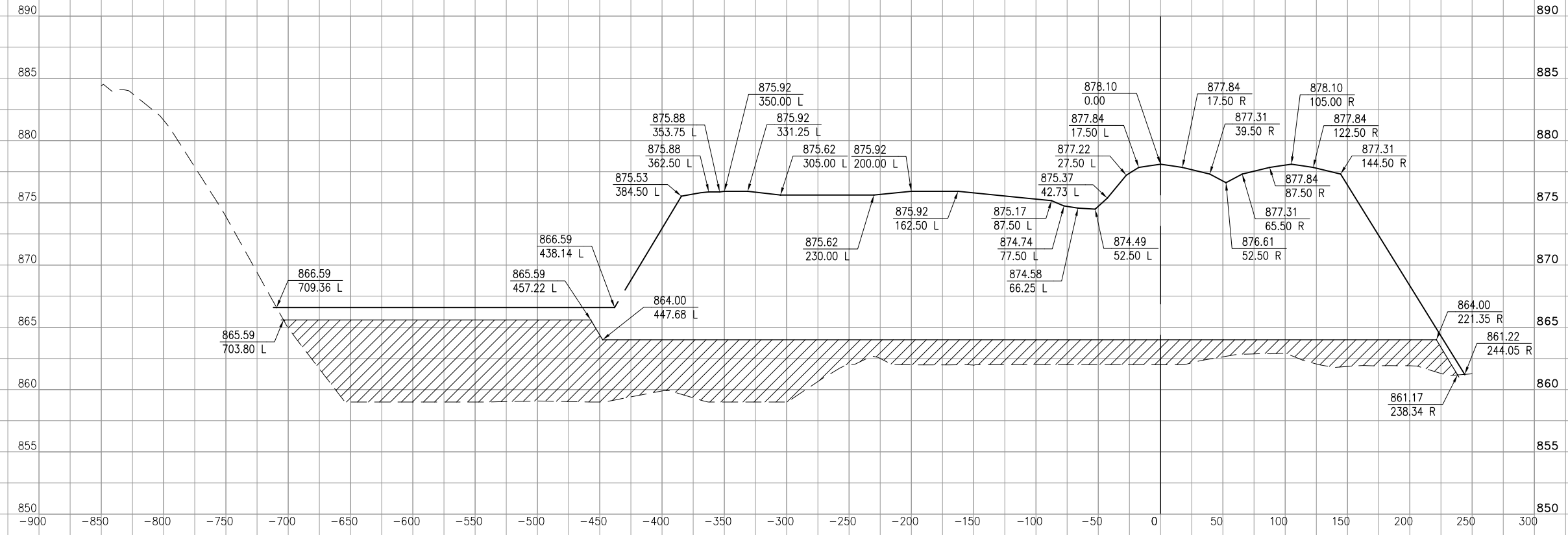
LAYOUT	JTP	2/24/11
DRAWN	LDH	3/16/11
REVIEWED	RMH	4/13/11

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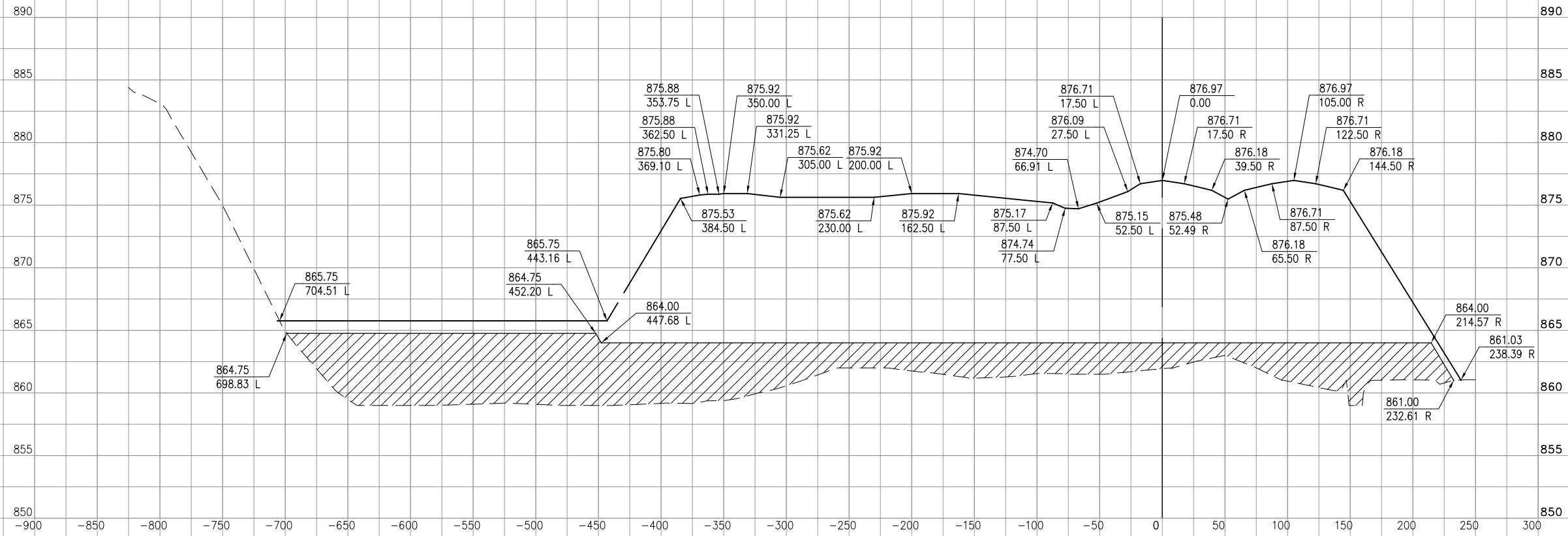
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 REPLACE MAIN APRON, STAGE 1
 GRADING AND DRAINAGE
 IDA No. 3CK-4037 AIP No. 3-17-0112-B14

STA.
304+00

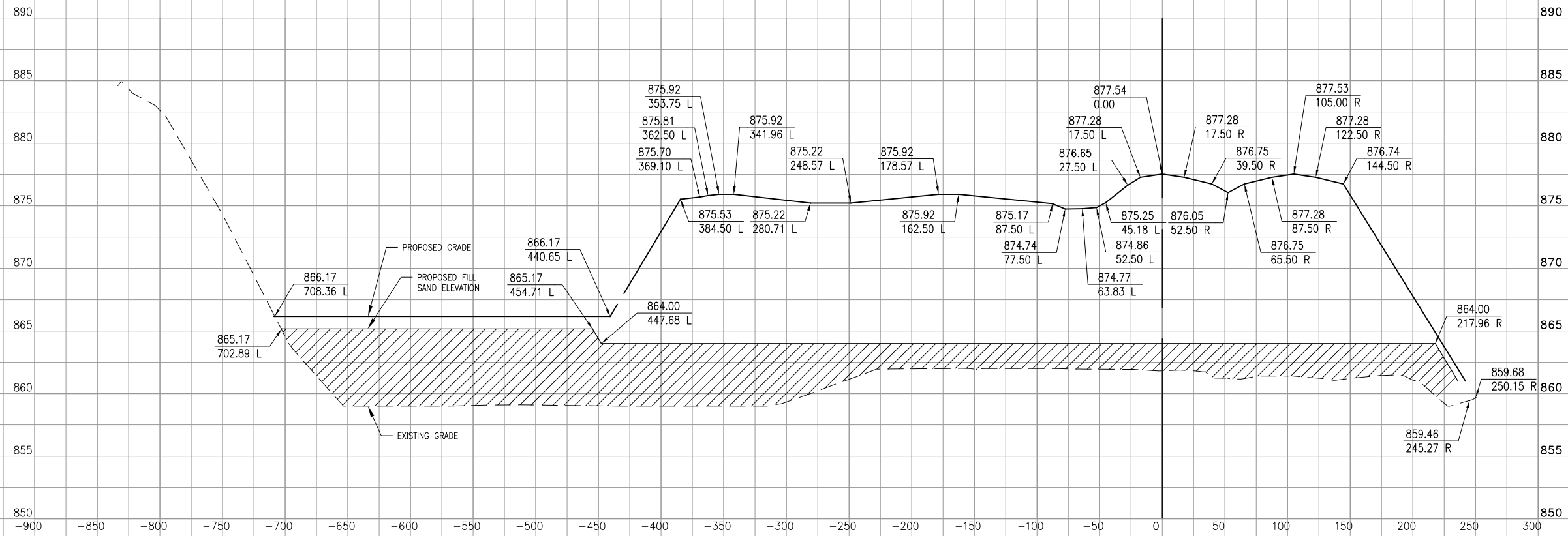
STA.
303+50



STA.
305+00



STA.
304+50



REVISION	DATE

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600 Harvest Gate
Lake in the Hills, Illinois 60156 Telephone:
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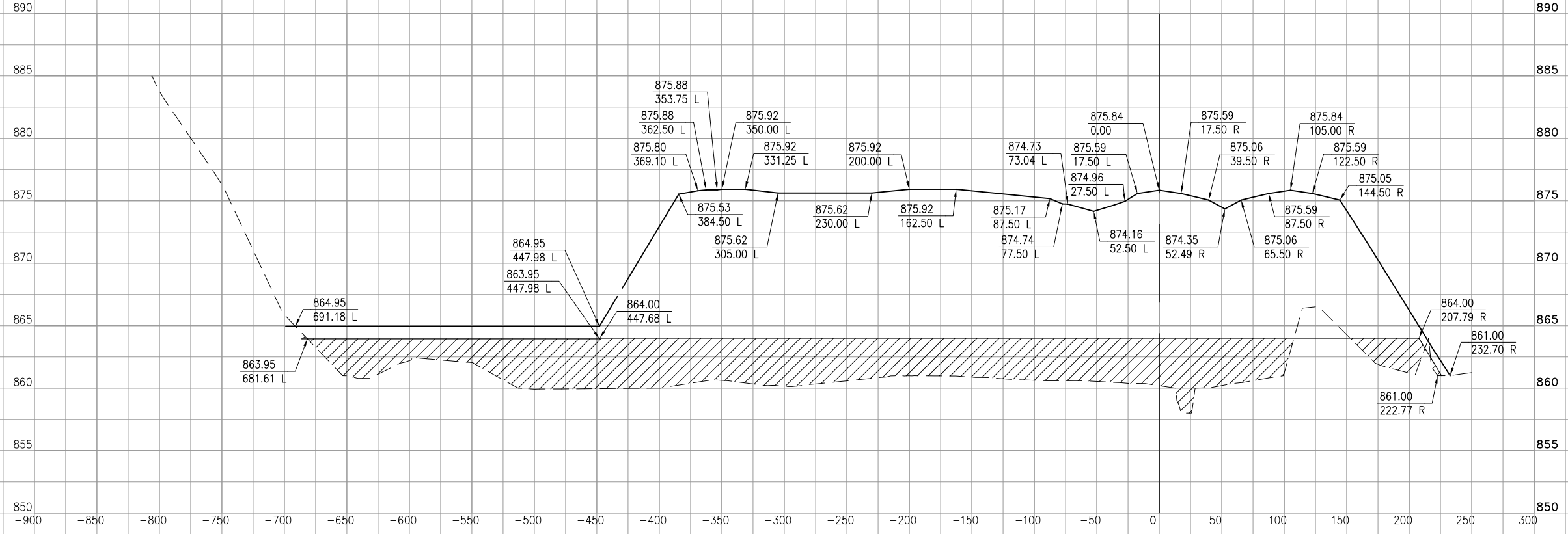
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09A0143	APRIL 22, 2011	1"=50'	JTP	RMH
15-CROSS SECTIONS.DWG			LDH	

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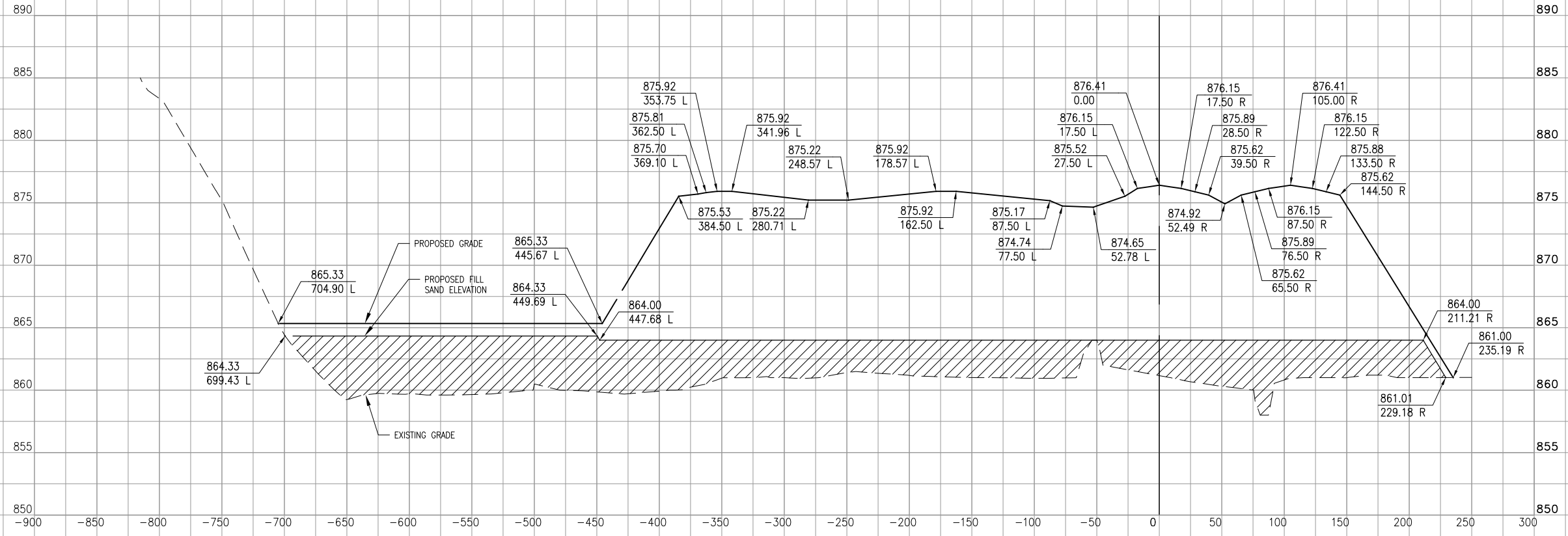
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REPLACE MAIN APRON, STAGE 1
GRADING AND DRAINAGE
IDA No. 3CK-4037 AIP No. 3-17-0112-B14

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STA.
306+00



STA.
305+50



LK009

REVISION	DATE

VILLAGE OF
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Revision No.	Filename	Scale	Date	JTP	LDH	RMH
09A0143	16-CROSS SECTIONS.DWG	1"=50'	APRIL 22, 2011	2/24/11	3/16/11	4/13/11

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GRADING AND DRAINAGE
IDA No. 3CK-4037 AIP No. 3-17-0112-B14

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DATE

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Hanson No. 09A0143
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Date APRIL 22, 2011

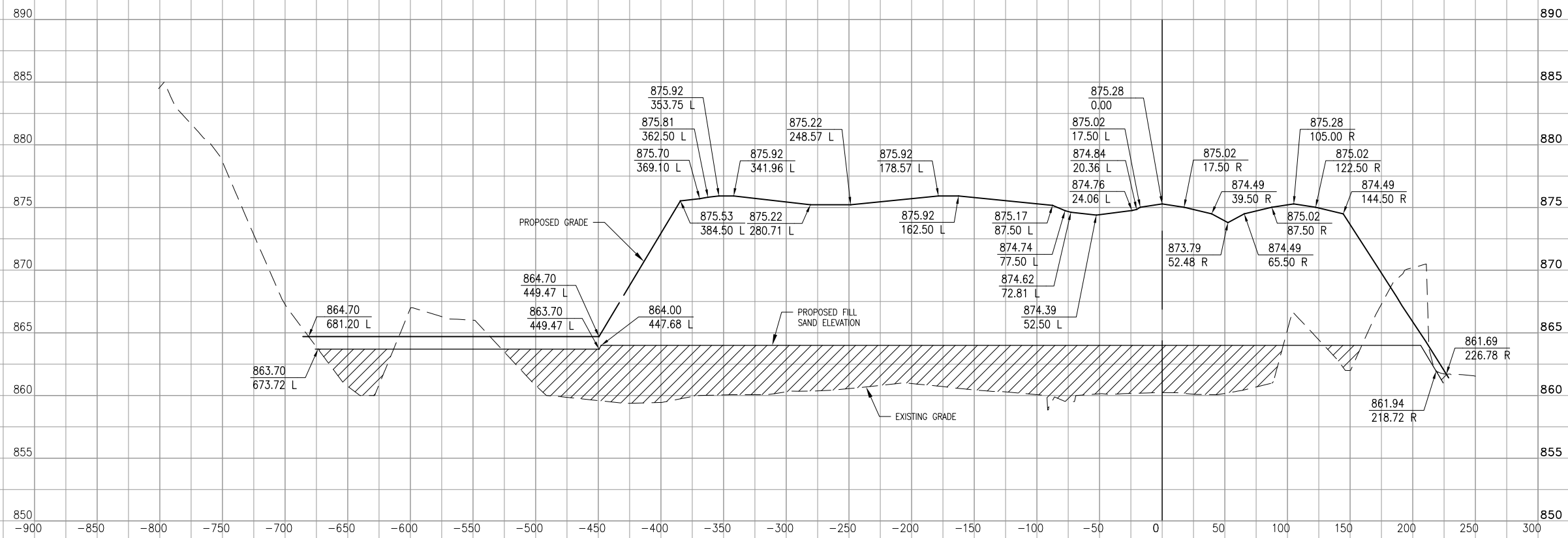
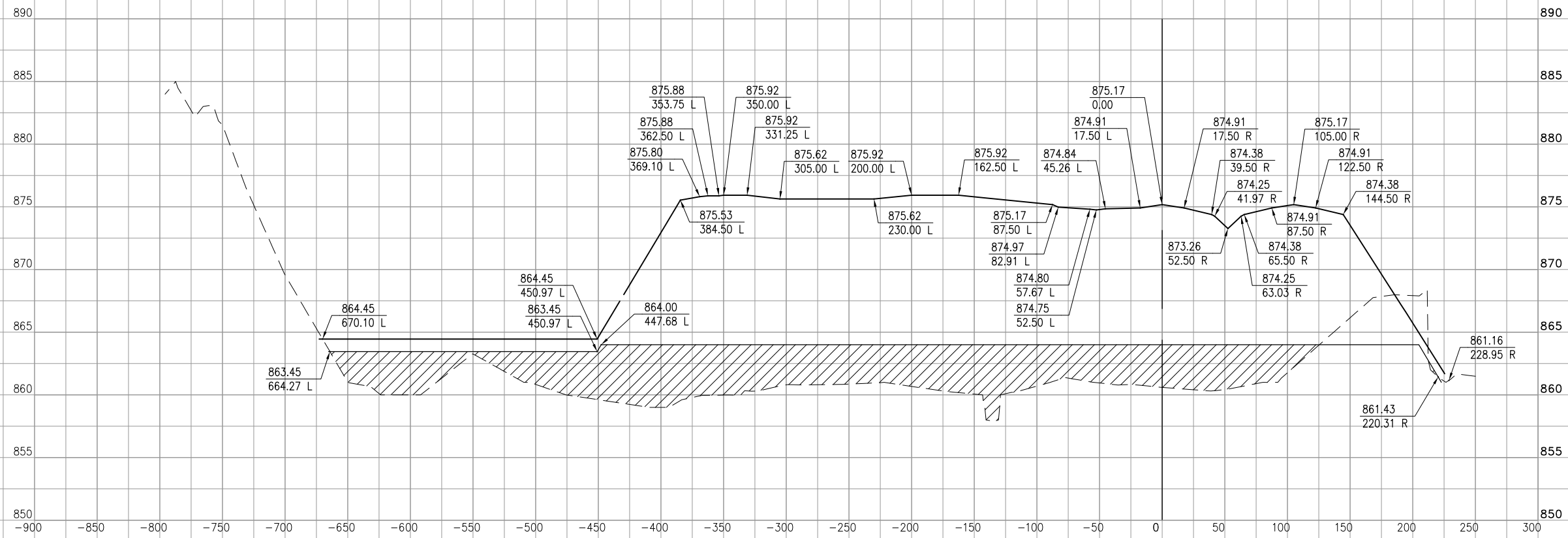
LAYOUT	JTP	2/24/11
DRAWN	LDH	3/16/11
REVIEWED	RMH	4/13/11

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CROSS SECTIONS
STA. 306+50 TO STA. 307+00
REPLACE MAIN APRON, STAGE 1
GRADING AND DRAINAGE
IDA No. 3CK-4037 AIP No. 3-17-0112-B14

STA. 307+00

STA. 306+50



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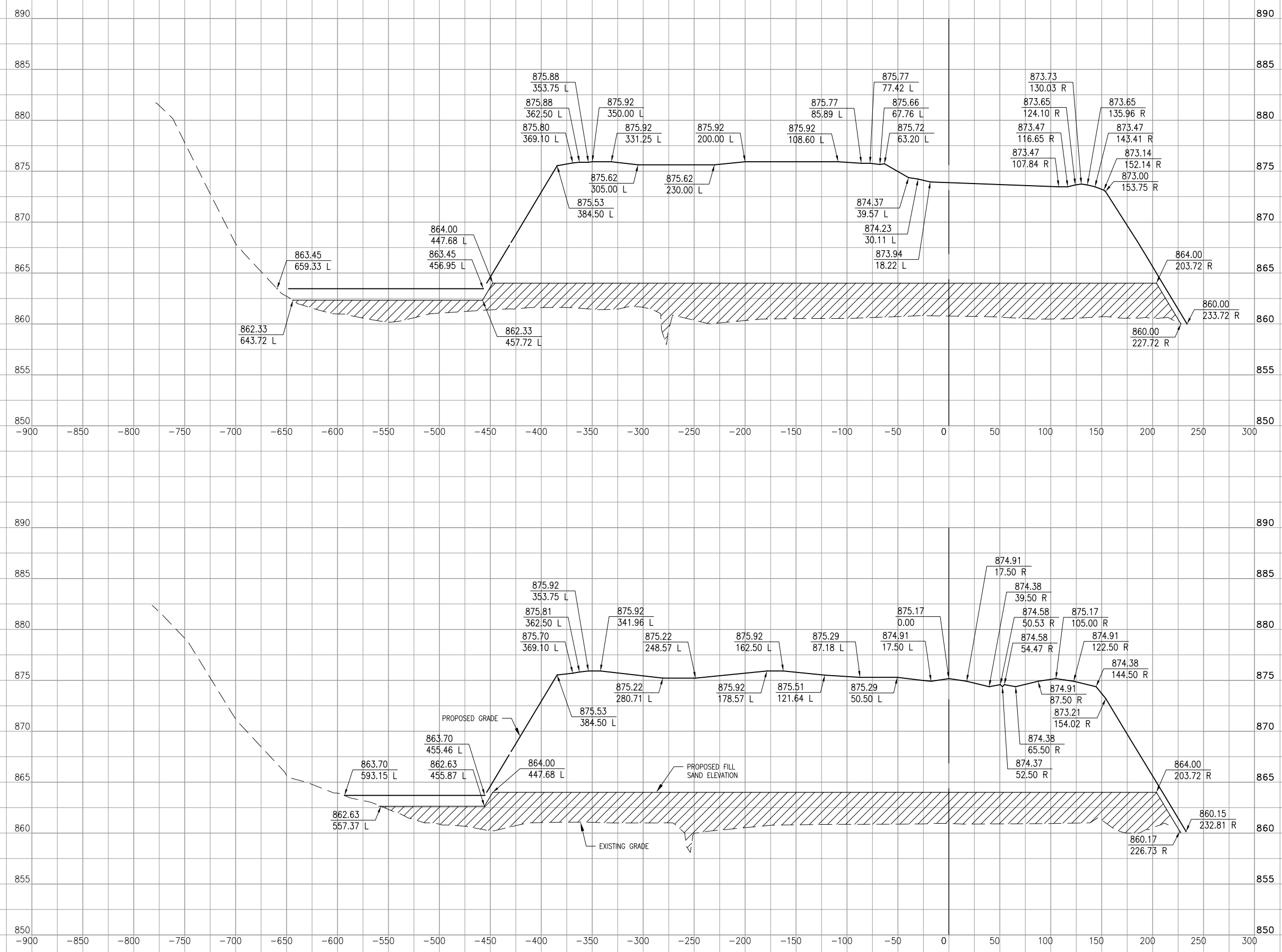
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LAYOUT	JTP	2/24/11	
DRAWN	LDH	3/16/11	
REVIEWED	RMH	4/13/11	

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CROSS SECTIONS
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 GRADING AND DRAINAGE
 IDA No. 3CK-4037 AIP No. 3-17-0112-B14

STA.
309+00

STA.
308+50



DATE	REVISION

VILLAGE OF LAKE IN THE HILLS
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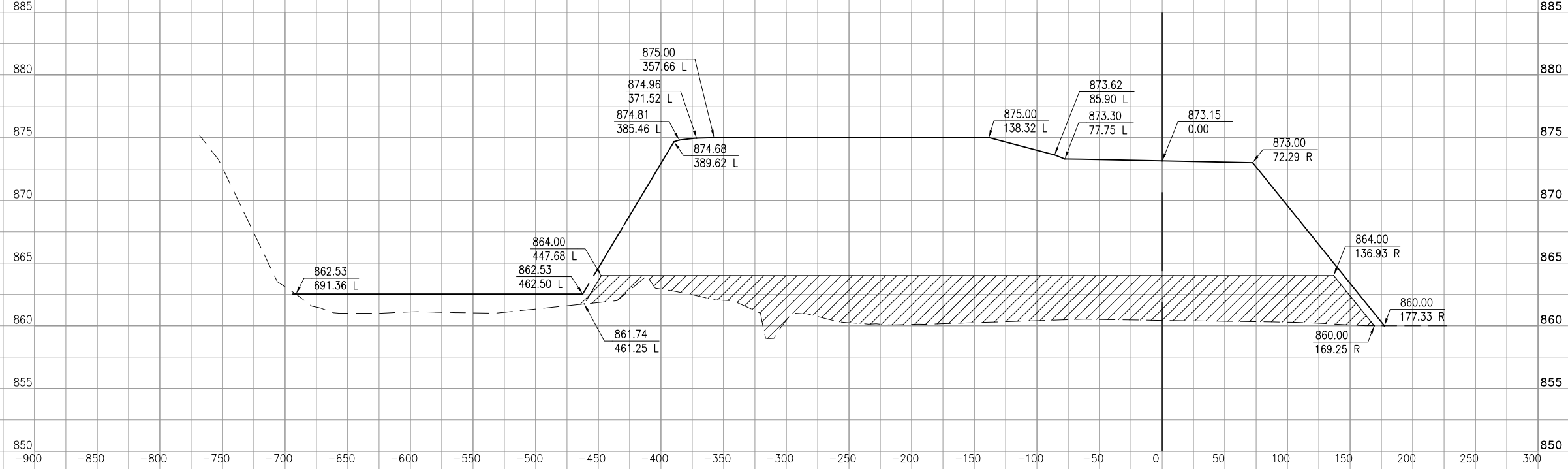


Filename	Date	Drawn	Reviewed
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20-CROSS SECTIONS.DWG		LDH	
Scale 1"=50'			

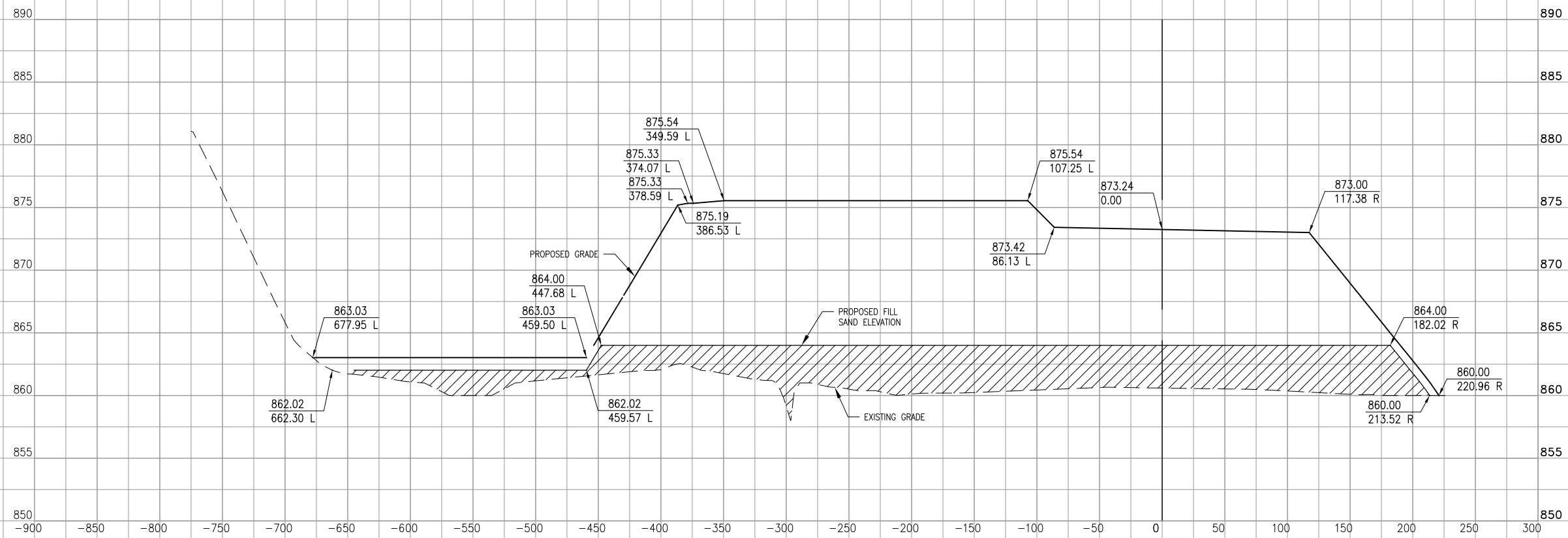
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CROSS SECTIONS
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REPLACE MAIN APRON, STAGE 1
GRADING AND DRAINAGE
 IDA No. 3CK-4037 AIP No. 3-17-0112-B14

STA. 310+00

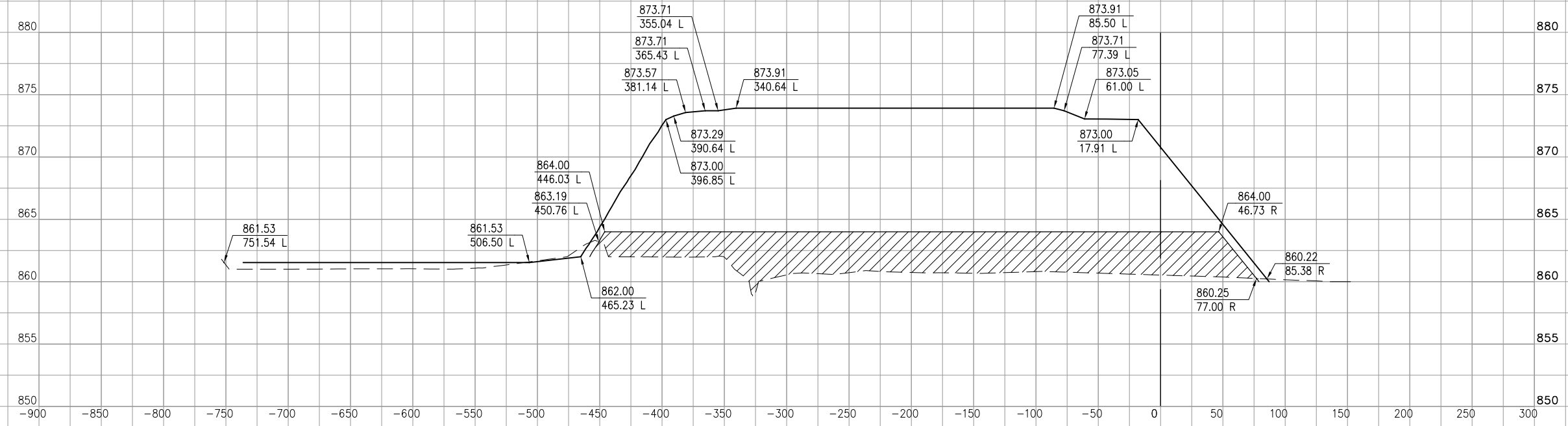


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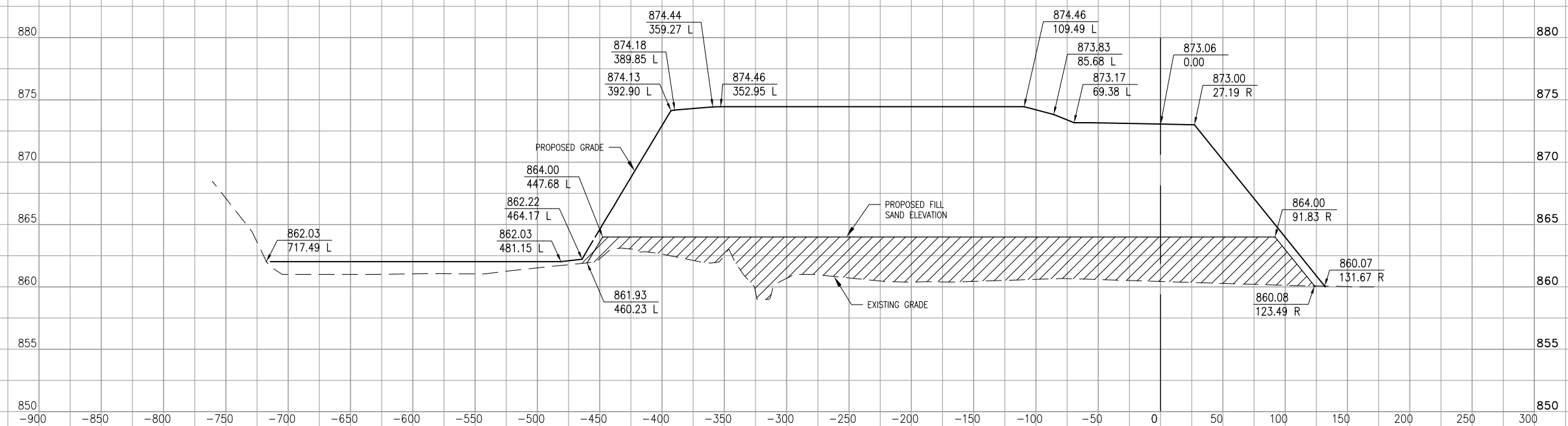


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STA.
311+00



STA.
310+50



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Hanson No.	Filename	Scale	Date	LAYOUT	JTP	2/24/11
09A0143	21-CROSS SECTIONS.DWG	1"=50'	APRIL 22, 2011	DRAWN	LDH	3/16/11
				REVIEWED	RMH	4/13/11

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CROSS SECTIONS
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Hanson No. 09A0143	Filename 22-CROSS SECTIONS.DWG	LAYOUT JTP 2/24/11
Scale 1"=50'	Date APRIL 22, 2011	DRAWN LDH 3/16/11
		REVIEWED RMH 4/13/11

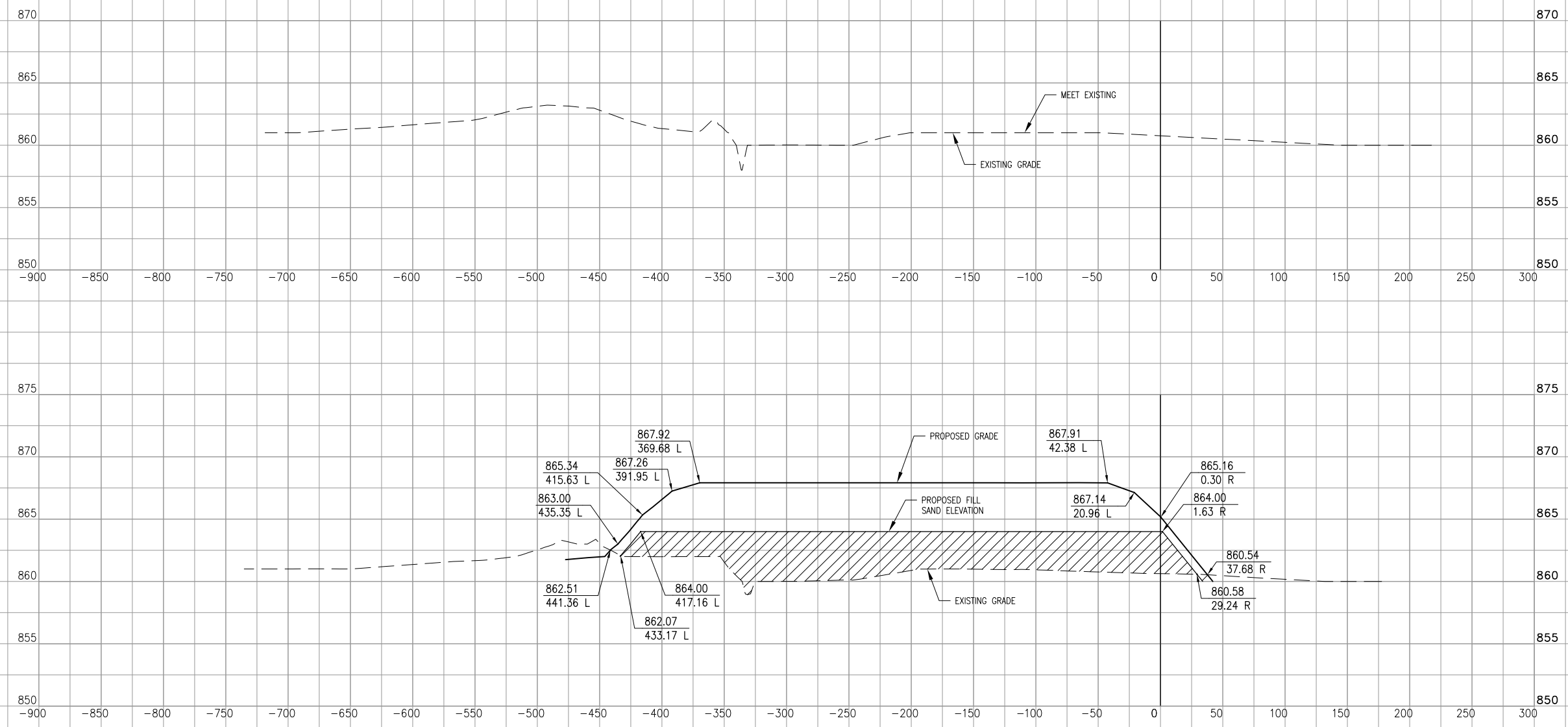
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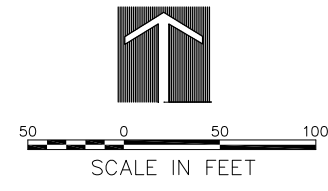
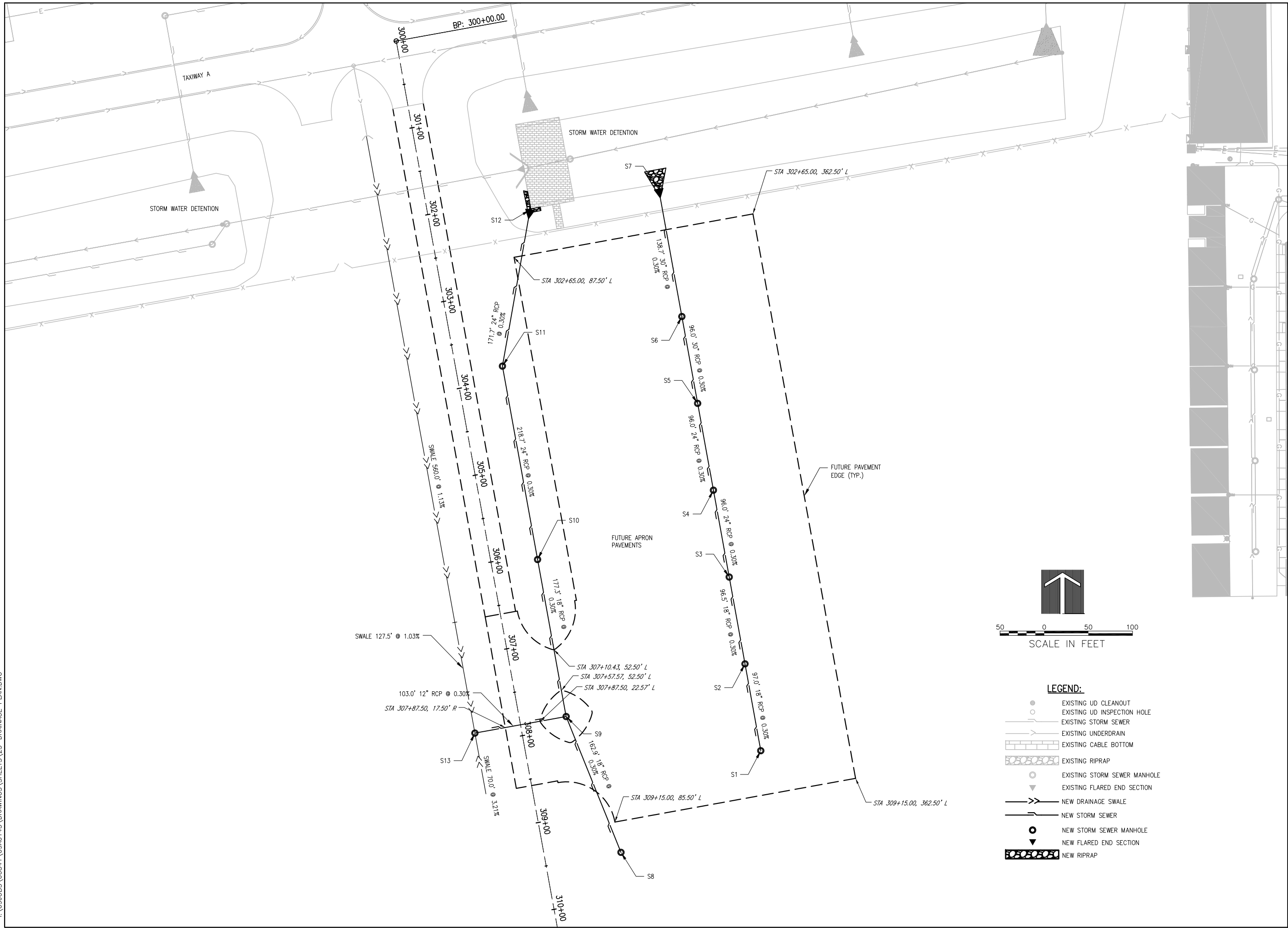
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GRADING AND DRAINAGE
 IDA No. 3CK-4037 AIP No. 3-17-0112-B14

APR 28, 2011 4:31 PM HAUSM00682
 I:\08\085\00841\09A0143\DRAWINGS\SHEETS\22-CROSS SECTIONS.DWG

STA.
311+92

STA.
311+50





LEGEND:

- EXISTING UD CLEANOUT
- EXISTING UD INSPECTION HOLE
- EXISTING STORM SEWER
- EXISTING UNDERDRAIN
- EXISTING CABLE BOTTOM
- EXISTING RIPRAP
- EXISTING STORM SEWER MANHOLE
- ▼ EXISTING FLARED END SECTION
- NEW DRAINAGE SWALE
- NEW STORM SEWER
- NEW STORM SEWER MANHOLE
- ▼ NEW FLARED END SECTION
- NEW RIPRAP

REVISION	DATE

VILLAGE OF LAKE IN THE HILLS
 600 Harvest Gate
 Lake in the Hills, Illinois 60156 Telephone: 847.960.7410
 Fax: 847.960.7515



FILENAME	DATE	LAYOUT	DATE
09A0143	APRIL 22, 2011	LDH	2/3/11
23-DRAINAGE PLAN.DWG		LDH	2/3/11
1"=50'		RMH	4/13/11

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DRAINAGE PLAN
 REPLACE MAIN APRON, STAGE 1
 GRADING AND DRAINAGE
 IDA No. 3CK-4037 AIP No. 3-17-0112-B14

FRAME AND LID DATA

Structure Number	Structure Type	Diameter "D" (in.)	Frame Height "X" (in.)	Hole Opening "L" (in.)	Frame Type (East Jordan)	Cover/Grate (East Jordan)
S1	Manhole	48	8.5	36	1585	Type M
S2	Manhole	48	8.5	36	1585	Type M
S3	Manhole	60	8.5	36	1585	Type M
S4	Manhole	60	8.5	36	1585	Type M
S5	Manhole	60	8.5	36	1585	Type M
S6	Manhole	60	8.5	36	1585	Type M
S8	Manhole	48	8.5	36	1585	Type M
S9	Manhole	48	8.5	36	1585	Type M
S10	Manhole	60	8.5	36	1585	Type M
S11	Manhole	60	8.5	36	1585	Type M
S13	Inlet	24	9	24	1020	Type M1

STORM SEWER SCHEDULE

Structure	Station	Offset	Type	Rim E.	Invert E.	Pay Length	Size	Type	Slope %
S1	308+65.00	262.5' L	MH	874.92	871.50	97.0	18.0	RCP	0.30
S2	307+65.00	262.5' L	MH	874.92	871.10	96.5	18.0	RCP	0.30
S3	306+65.00	262.5' L	MH	874.92	870.70	96.0	24.0	RCP	0.30
S4	305+65.00	262.5' L	MH	874.92	870.30	96.0	24.0	RCP	0.30
S5	304+65.00	262.5' L	MH	874.92	869.90	96.0	30.0	RCP	0.30
S6	303+65.00	262.5' L	MH	874.92	869.50	138.7	30.0	RCP	0.30
S7	302+18.26	262.5' L	FES	--	869.00				
S8	309+50.00	86.1' L	MH	873.42	869.60	162.9	18.0	RCP	0.30
S9	307+87.50	52.5' L	MH	874.62	869.00	177.3	18.0	RCP	0.30
S10	306+06.68	52.5' L	MH	874.09	868.40	218.7	24.0	RCP	0.30
S11	303+83.97	52.5' L	MH	874.37	867.60	171.7	24.0	RCP	0.30
S12	302+15.42	114.9' L	FES	--	867.00				
S13	307+87.50	52.5' R	Inlet	872.36	869.40	103.0	12.0	RCP	0.30
S9	307+87.50	52.5' L	MH	874.62	869.00				

NOTES

- SEE DETAILS FOR ADDITIONAL MANHOLE, INLET AND FLARED END SECTION INFORMATION.
- ADJUSTING RINGS, 6-INCH MAX., NO MORE THAN TWO RINGS ALLOWED.
- ALL MANHOLES TO HAVE FLAT SLAB TOP, SEE DETAIL.
- COST OF CONNECTIONS TO MANHOLES, INLETS, AND R.C.P. ARE INCIDENTAL. CONNECTIONS AT MANHOLES/INLETS SHALL BE PRECAST WITH STRUCTURES OR CORED.
- ALL FRAMES AND ADJUSTING RINGS SHALL BE MORTARED.
- ALL MANHOLE, INLET AND FLARED END SECTION STRUCTURES TO BE PRECAST.
- FRAME AND COVER/GRATE BY EAST JORDAN IRON WORKS, OR EQUIVALENT.
- STATION AND OFFSET OF FRAME AND GRATE FOR STRUCTURES LOCATED WITHIN FUTURE PAVEMENT ARE CRITICAL AND SHALL NOT BE ADJUSTED FROM THAT SHOWN. SEE SPECIAL PROVISIONS FOR TOLERANCES.

NOTE
MANHOLES AND INLETS ARE LOCATED TO THE C OF THE FRAME AND GRATE. THE CONTRACTOR IS RESPONSIBLE FOR FABRICATING AND OFFSETTING THE STRUCTURES AS NEEDED TO ALLOW FOR PROPER PLACEMENT OF THE FRAME AND GRATE.

REVISION	DATE

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600 Harvest Gate
Lake in the Hills, Illinois 60156 Telephone: 847.960.7410
Fax: 847.960.7515



Hanson No. 09A0143	Filename 24-DRAINAGE SCHEDULE.DWG	Scale NONE	Date APRIL 22, 2011
LAYOUT	LDH	2/4/11	
DRAWN	LDH	2/4/11	
REVIEWED	RMH	4/13/11	

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DRAINAGE SCHEDULE
REPLACE MAIN APRON, STAGE 1
GRADING AND DRAINAGE
IDA No. 3CK-4037 AIP No. 3-17-0112-B14



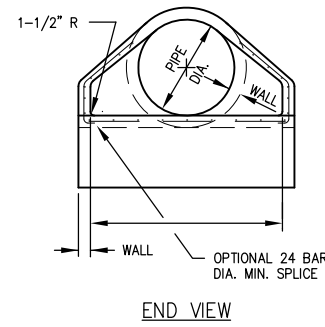
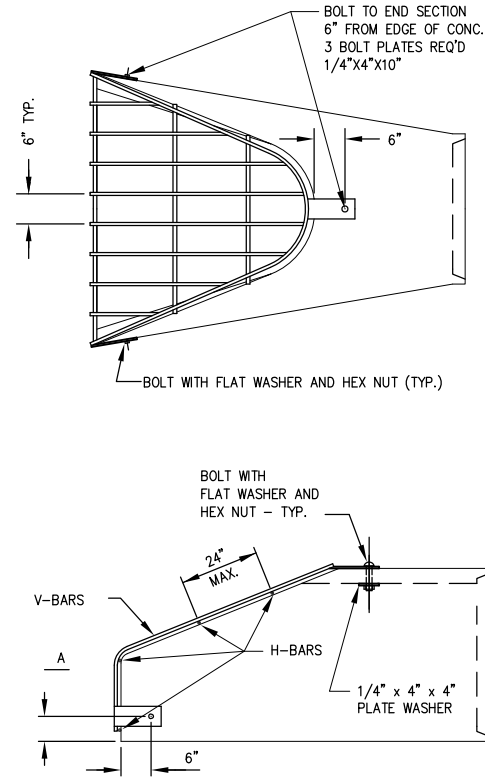
LAYOUT	LDH	2/3/11
DRAWN	LDH	2/3/11
REVIEWED	RMH	4/13/11

END SECTIONS	DIA. INCHES	V-BAR SIZE	H-BAR SIZE	No. OF H-BARS REQ'D.	BOLT DIA.	"A" DIM.
	INCHES		INCHES			
	12	1/2Ø	5/8Ø	3	1/2	4
	15	1/2Ø	5/8Ø	3	1/2	4 1/2
	18	1/2Ø	5/8Ø	4	1/2	4 1/2
	21	1/2Ø	5/8Ø	4	1/2	5
	24	5/8Ø	3/4Ø	4	1/2	5
	27	5/8Ø	3/4Ø	4	1/2	5 1/2
	30	5/8Ø	3/4Ø	4	1/2	5 1/2
	36	3/4Ø	1Ø	4	3/4	8
	42	3/4Ø	1Ø	4	3/4	8
	48	3/4Ø	1Ø	5	3/4	8
	54	3/4Ø	1-1/2PIPE	5	3/4	8
	24 X 38 ELLIPTICAL	3/4Ø	1Ø	5	3/4	8

NOTES

1. BARS AND PLATES ARE HOT ROLLED STEEL.
2. BARS, PLATES, PIPE AND BOLTS ARE GALVANIZED.

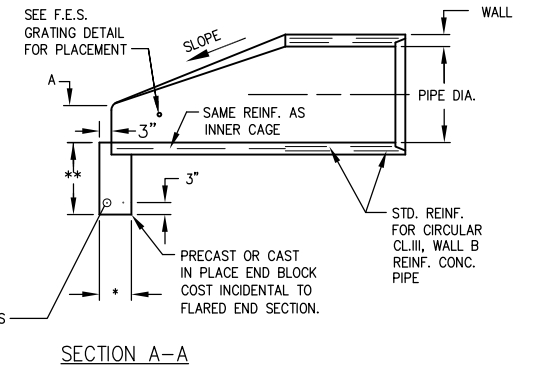
GRATING FOR FLARED END SECTION



END VIEW

- * 8" - 36" DIA. PIPE OR LESS
10" - GREATER THAN 36" DIA. PIPE
- ** 18" - 36" DIA. PIPE OR LESS
24" - GREATER THAN 36" DIA. PIPE

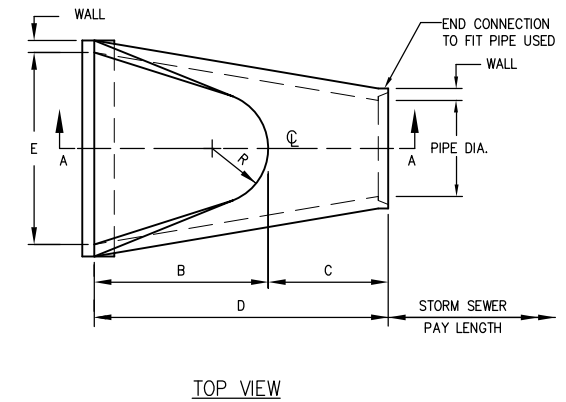
2 - NO. 4 BARS



SECTION A-A

NOTES

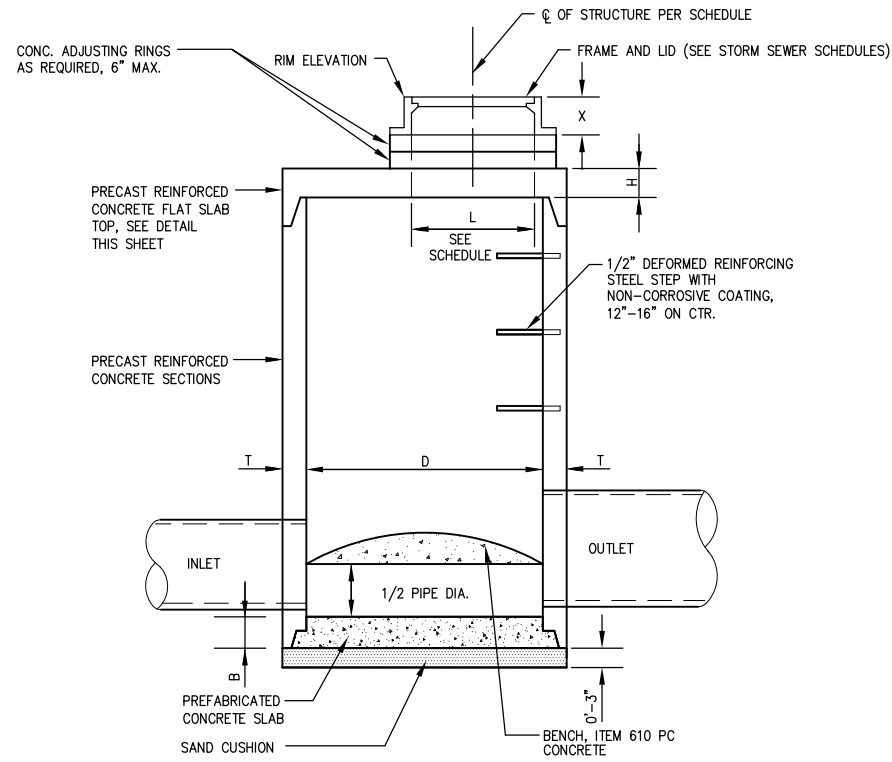
1. GRATING SHALL BE PAID FOR UNDER ITEM AR752518.
2. THE END BLOCK SHALL BE PLACED PRIOR TO THE INSTALLATION OF THE FLARED END SECTION. THE END BLOCK SHALL BE BACKFILLED IN ACCORDANCE WITH ARTICLE 502.10 OF IDOT SPECIFICATIONS, WITH COST INCIDENTAL TO FLARED END SECTION.
3. PRECAST CONCRETE FLARED END SECTIONS SHALL CONFORM TO THE APPLICABLE REQUIREMENTS OF AASHTO M-170 CLASS III, WALL B REINFORCED CONCRETE PIPE.
4. MODIFICATION IS DUE TO THE RELOCATION OF THE CONNECTION POINT BETWEEN THE GRATE AND THE FLARED END SECTION.



TOP VIEW

PIPE DIA.	WALL	A	B	C	D	E	R	SLOPE
12"	2"	4"	2'-0"	4'-0 7/8"	6'-0 7/8"	2'-0"	9"	3:1
15"	2 1/4"	6"	2'-3"	3'-10"	6'-1"	2'-6"	11"	3:1
18"	2 1/2"	9"	2'-3"	3'-10"	6'-1"	3'-0"	12"	3:1
21"	2 3/4"	9"	2'-11"	3'-2"	6'-1"	3'-6"	13"	3:1
24"	3"	9 1/2"	3'-7 1/2"	2'-6"	6'-1 1/2"	4'-0"	14"	3:1
27"	3 1/4"	10 1/2"	4'-0"	2'-1 1/2"	6'-1 1/2"	4'-6"	14 1/2"	3:1
30"	3 1/2"	1'-0"	4'-6 1/2"	1'-7 3/4"	6'-1 3/4"	5'-0"	15"	3:1
33"	3 3/4"	1'-1 1/2"	4'-10 1/2"	3'-3 1/4"	8'-1 3/4"	5'-6"	17 1/2"	3:1
36"	4"	1'-3"	5'-3"	2'-10 3/4"	8'-1 3/4"	6'-0"	20"	3:1
42"	4 1/2"	1'-9"	5'-3"	2'-11"	8'-2"	6'-6"	22"	3:1
48"	5"	2'-0"	6'-0"	2'-2"	8'-2"	7'-0"	22"	3:1
54"	5 1/2"	2'-3"	5'-5"	2'-11"	8'-4"	7'-6"	24"	2.4:1

PRECAST CONCRETE FLARED END SECTION
(IDOT STANDARD 542301-MODIFIED)



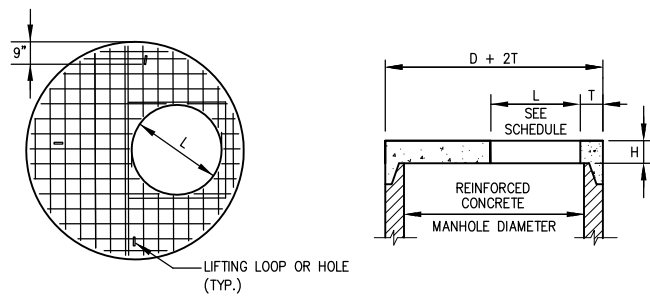
MANHOLE DATA

NOTES

- FOR "L" DIMENSION AND FRAME AND LID INFORMATION SEE STORM SEWER SCHEDULES.
- CENTER OF FRAME TO BE USED FOR LOCATING STRUCTURE. FOR STRUCTURE LOCATIONS AND ADDITIONAL INFORMATION SEE SCHEDULE.
- ALL STRUCTURES TO BE PRECAST REINFORCED CONCRETE SECTIONS; BENCHES MAY BE CAST IN PLACE.

INSIDE DIA. "D" (IN.)	WALL THICKNESS "T" (IN.)	TOP THICKNESS "H" (IN.)	BOTTOM THICKNESS "B" (IN.)
48	5	6	6
60	5	8	8

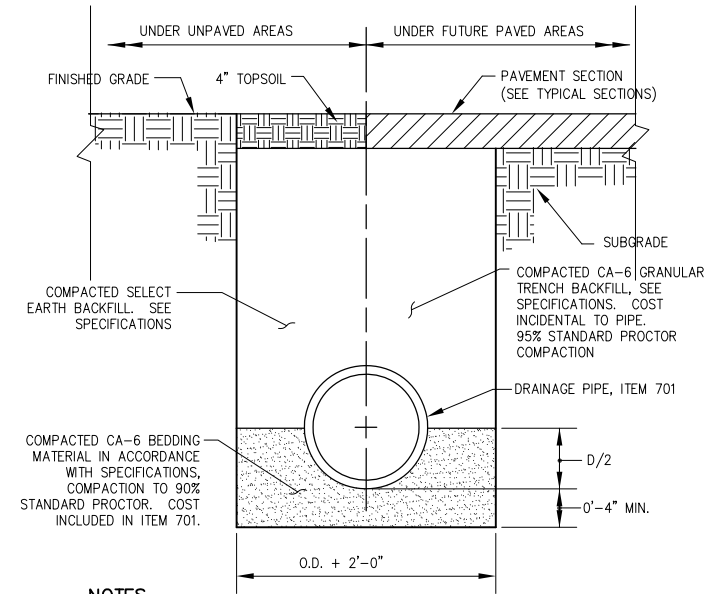
MANHOLE WITH FLAT SLAB TOP
(IDOT STANDARD 602401-MODIFIED)



NOTES

- ADDITIONAL TOP AND BOTTOM BARS PLACED ADJACENT TO ACCESS HOLE.
- MINIMUM 1" COVER ON STEEL BARS.
- THREE LIFTING LOOPS OR HOLES.
- MINIMUM STEEL REINFORCEMENT IN EACH DIRECTION TO BE WWF 1.06 SQ. IN./FT. IN ACCORDANCE WITH AASHTO M199 AND IDOT STANDARDS.
- FOR "L" DIMENSION SEE STORM SEWER SCHEDULES.

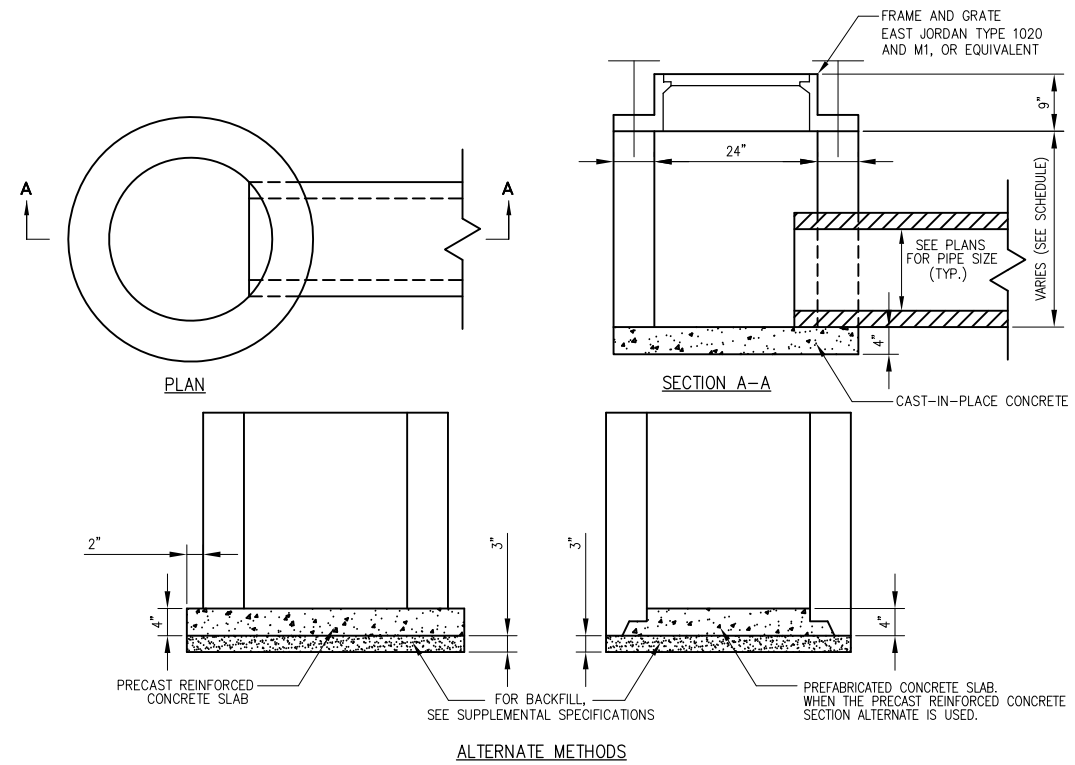
PRECAST REINFORCED CONCRETE FLAT SLAB TOP
(IDOT STANDARD 602601)



NOTES

- UNSUITABLE MATERIAL ENCOUNTERED DURING PLACEMENT OF BEDDING SHALL BE REMOVED AND REPLACED.
- WITHIN 3 FEET OF FUTURE PAVED AREA, GRANULAR BACKFILL IS TO BE USED INSTEAD OF EARTH BACKFILL.
- AT CONTRACTOR'S OPTION IDOT CONTROLLED LOW STRENGTH MATERIAL WITH A HIGH EARLY STRENGTH, "FLASH FILL", MAY BE USED INSTEAD OF GRANULAR TRENCH BACKFILL UNDER PAVEMENTS.

PIPE TRENCH



NOTES

- SEE DRAINAGE AND UNDERDRAIN SCHEDULE FOR LOCATION, SIZE AND NUMBER OF PIPE CONNECTIONS.
- INLETS TO BE PRECAST REINFORCED CONCRETE SECTIONS (T = 5").

INLET TYPE A
(IDOT STANDARD 602301)

REVISION
DATE

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600 Harvest Gate
Lake in the Hills, Illinois 60156 Telephone: 847.960.7410
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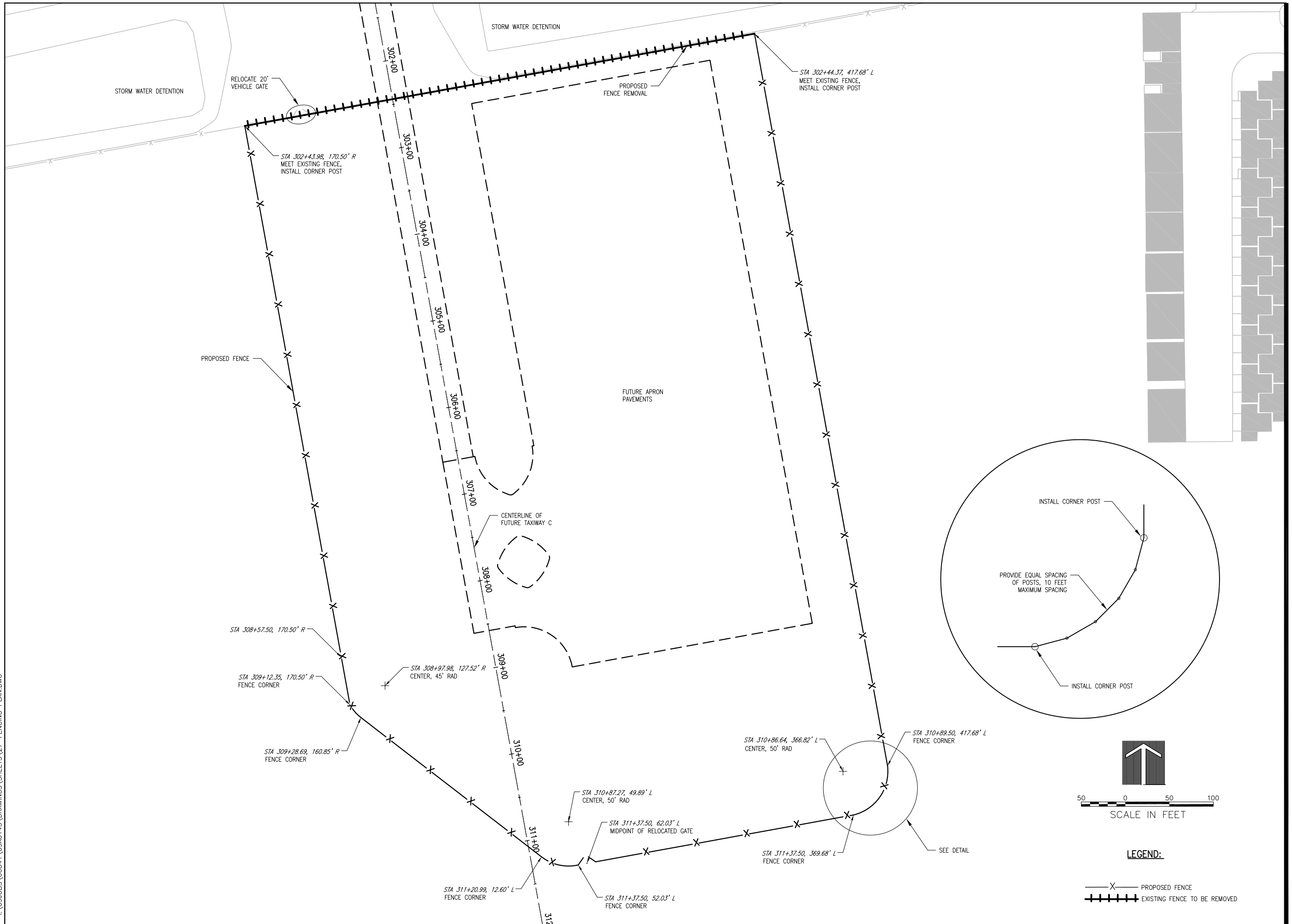
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Filename 26-DRAINAGE-DETAILS.DWG
Scale NONE
Date APRIL 22, 2011

	LDH	2/3/11
LAYOUT	LDH	2/3/11
DRAWN	LDH	2/3/11
REVIEWED	RMH	4/13/11

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DRAINAGE DETAILS
REPLACE MAIN APRON, STAGE 1
GRADING AND DRAINAGE
IDA No. 3Ck-4037 AIP No. 3-17-0112-B14

APR 28, 2011 4:39 PM HAUSM00682
 I:\08\085\00841\09A0143\DRAWINGS\00841\09A0143\27--FENCING PLAN.DWG



LK009

REVISION	DATE

VILLAGE OF LAKE IN THE HILLS
 600 Harvest Gate
 Lake in the Hills, Illinois 60156 Telephone:
 847.960.7410
 Fax: 847.960.7515



FILENAME	SCALE	DATE	LAYOUT	DRAWN	REVIEWED
09A0143	1"=50'	APRIL 22, 2011	LDH	LDH	RMH
27--FENCING PLAN.DWG					

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FENCING PLAN

REPLACE MAIN APRON, STAGE 1
 GRADING AND DRAINAGE
 IDA No. 3CK-4037 AIP No. 3-17-0112-B14

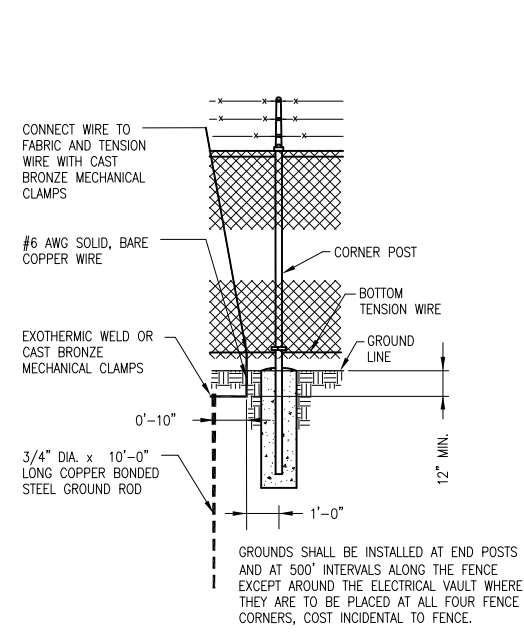


Hanson No.	09A0143	LAYOUT	LDH	2/4/11
Filename	28-FENCING_DETAILS.DWG	DRAWN	LDH	2/4/11
Scale	NONE	REVIEWED	RMH	4/13/11
Date	APRIL 22, 2011			

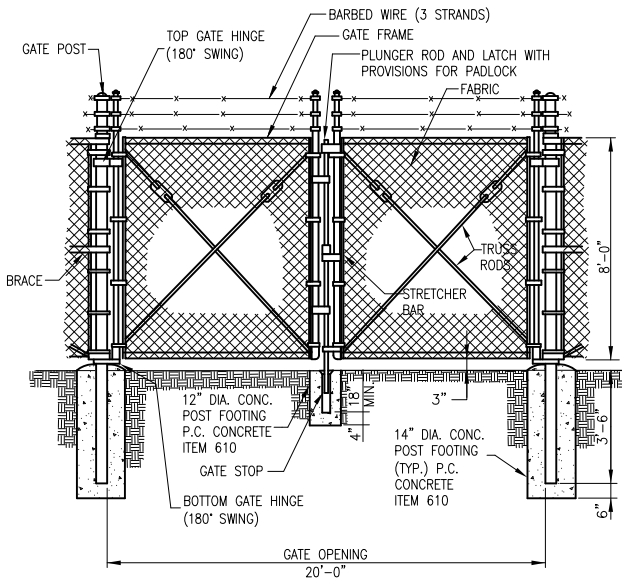
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FENCING DETAILS

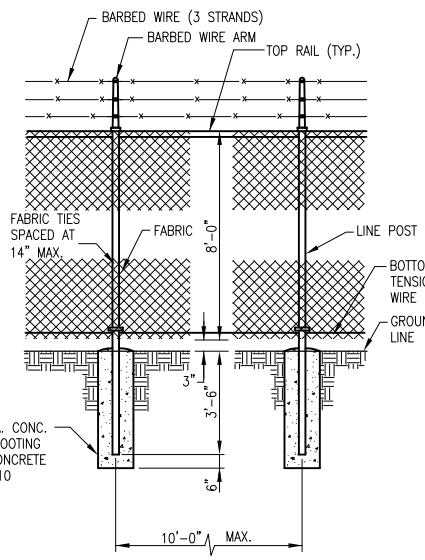
REPLACE MAIN APRON, STAGE 1
GRADING AND DRAINAGE
IDA No. 3CK-4037 AIP No. 3-17-0112-B/4



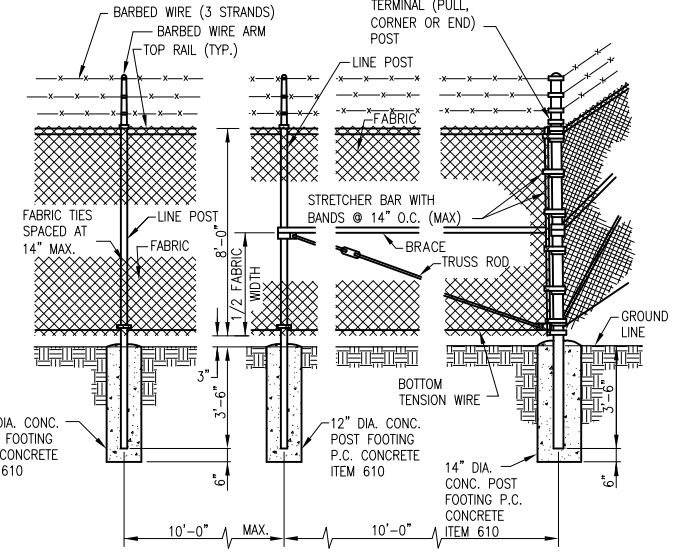
PROTECTIVE ELECTRICAL GROUND



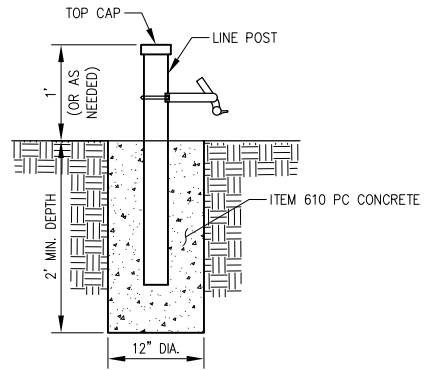
VEHICLE GATE, 20 FOOT WIDE



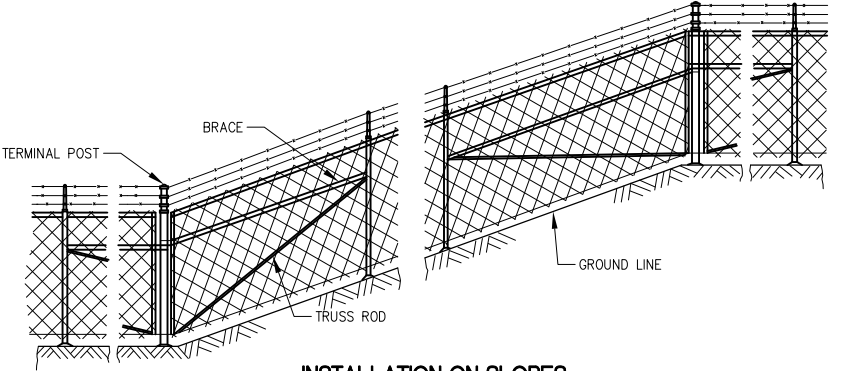
LINE POST



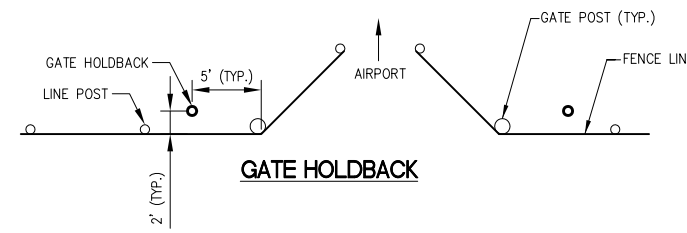
TERMINAL (PULL, CORNER OR END) POST



GATE HOLDBACK



INSTALLATION ON SLOPES



FENCING NOTES

- ALL FENCE, FABRIC, POSTS, GATES, TENSION WIRE, RODS, BRACES, ARMS, BARBED WIRE AND MISCELLANEOUS FITTINGS SHALL BE GALVANIZED STEEL.
- BARBED WIRE FOR FENCE AND GATES SHALL BE GALVANIZED STEEL.
- FENCE AND GATE HEIGHT SHALL BE 8'-0" AS SHOWN.
- PULL POSTS SHALL BE PLACED AT 660 FOOT INTERVALS BETWEEN CORNER OR END POSTS TO WHICH THE ENDS OF THE FABRIC ARE CLAMPED OR MIDWAY BETWEEN SUCH POSTS WHEN THE DISTANCE IS LESS THAN 1,320 FEET AND GREATER THAN 660 FEET.
- GATE HOLDBACKS SHALL BE PROVIDED TO HOLD GATES IN THE OPEN POSITION. THEY SHALL BE LOCATED AND INSTALLED AS SHOWN OR AS DIRECTED BY THE RESIDENT ENGINEER.
- ALUMINUM RESTRICTED AREA SIGNS SHALL BE FURNISHED AS SHOWN IN THE DETAIL. COST INCIDENTAL TO FENCE OR GATE.
- SONOTUBE TO BE USED FOR CASTING POST FOUNDATIONS WHERE REQUIRED BY THE SOIL CONDITIONS TO PROVIDE A CONSTANT WIDTH FOOTING

LINE POST	
Section	lbs./ft. (kg/m)
Pipe Type A 1.90 (48.3) O.D.	2.72 (4.05)
Pipe Type B 1.90 (48.3) O.D.	2.28 (3.39)
Pipe Type C 1.90 (48.3) O.D.	2.26 (3.36)
H 1.875x1.625 (47.6x41.3)	2.72 (4.05)
□	1.60 (2.38)
I	2.30 (3.42)

TERMINAL POST	
Section	lbs./ft. (kg/m)
Pipe Type A 2.375 (60.3) O.D.	3.65 (5.43)
Pipe Type B 2.375 (60.3) O.D.	3.11 (4.63)
Pipe Type C 2.375 (60.3) O.D.	3.09 (4.60)
Roll Formed 3.5x3.5 (89.0x89.0)	See detail
Sq. Tubing 2.5x2.5 (63.5x63.5)	4.32 (6.43)

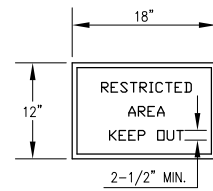
HORIZONTAL BRACES	
Section	lbs./ft. (kg/m)
Pipe Type A 1.66 (42.2) O.D.	2.27 (3.38)
Pipe Type B 1.66 (42.2) O.D.	1.83 (2.72)
Pipe Type C 1.66 (42.2) O.D.	1.82 (2.71)
H 1.31x1.5 (33.3x38.1)	2.25 (3.35)
Roll Formed 1.625x1.25 (41.3x31.8)	See detail

GATE FRAMES	
Section	lbs./ft. (kg/m)
Pipe Type A 1.66 (42.2) O.D.	2.27 (3.38)
Pipe Type B 1.66 (42.2) O.D.	1.83 (2.72)
Pipe Type C 1.66 (42.2) O.D.	1.82 (2.71)

GATE POSTS *					
Gate Opening * ft. (m)		Pipe Type A		Pipe Type B	
Single	Double	Size (O.D.)	lbs./ft. (kg/m)	Size (O.D.)	kg/m (lbs./ft.)
Over 4 (1.2) to 8 (2.5)	Over 8 (2.5) to 16 (5.0)	2.875 (73.0)	5.79 (8.62)	3 (76.2)	2.875 (73.0) 4.64 (6.91)

* The 3.5x3.5(89.0 x 89.0) roll formed section as detailed may be used as gate posts for single gate up to 6' (1.8 m) and double gate up to 12' (3.6 m).

DETAILS SHOWN ARE NOT TO SCALE

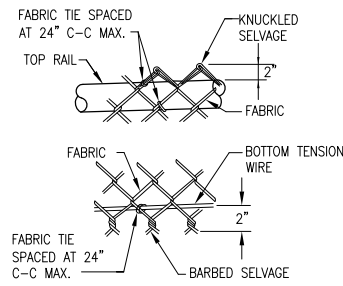


0.08 GA. ALUMINUM ALLOY SHEET (LETTERING COLOR SHALL BE RED ON WHITE BACKGROUND.)

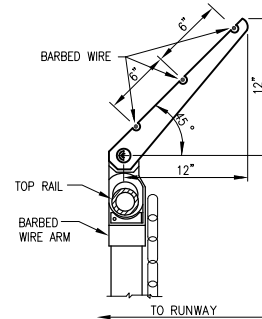
NOTES:

1. EACH GATE SHALL REQUIRE ONE SIGN.
2. EVERY 100' OF FENCE SHALL REQUIRE ONE SIGN.
3. COST OF THESE SIGNS AND THEIR INSTALLATION IS INCIDENTAL TO FENCE OR GATE.

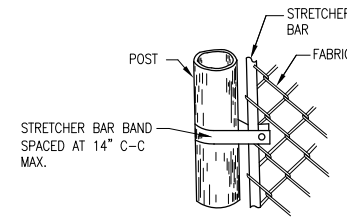
SIGN DETAIL



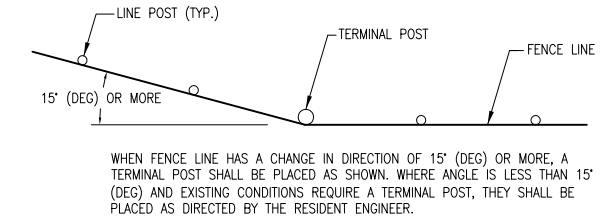
FABRIC TIES



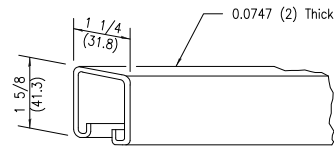
BARBED WIRE ARM



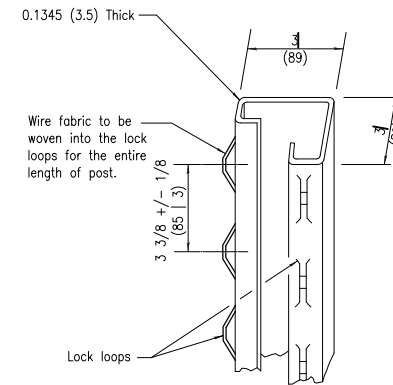
STRETCHER BAR BAND



INSTALLATION AT CORNERS



ROLL FORMED SECTION OF BRACE



ROLL FORMED SECTION OF TERMINAL + GATE POST

REVISION	DATE

VILLAGE OF LAKE IN THE HILLS
 600 Harvest Gate
 Lake in the Hills, Illinois 60156 Telephone: 847.960.7410
 Fax: 847.960.7515



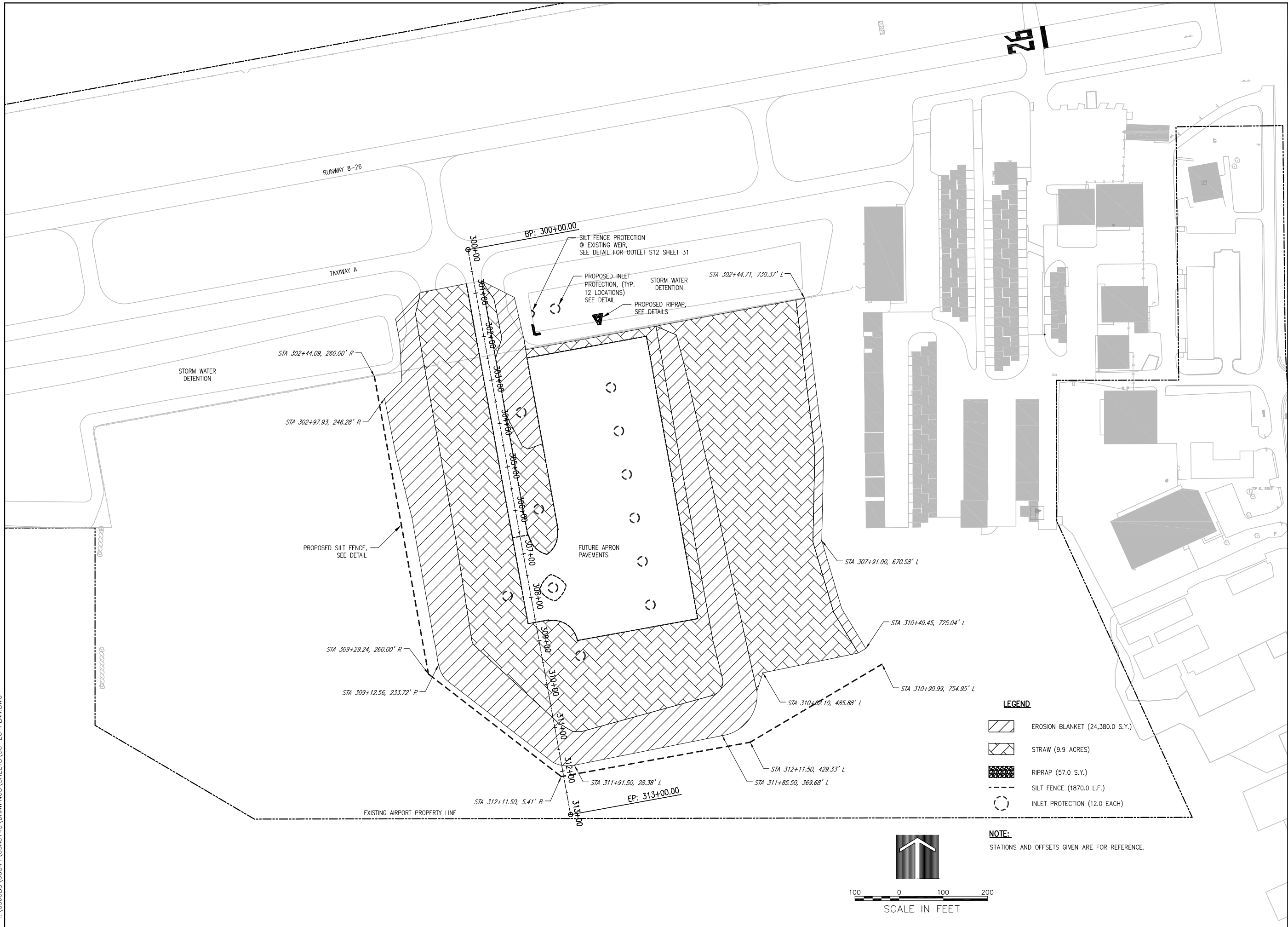
Hanson No. 09A0143		29-FENCING_DETAILS.DWG	
Filename	Scale	Date	
29-FENCING_DETAILS.DWG	NONE	APRIL 22, 2011	
LAYOUT	LDH	2/4/11	
DRAWN	LDH	2/4/11	
REVIEWED	RMH	4/13/11	

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



FENCING DETAILS
 REPLACE MAIN APRON, STAGE 1
 GRADING AND DRAINAGE
 IDA No. 3CK-4037 AIP No. 3-17-0112-B14

DETAILS SHOWN ARE NOT TO SCALE

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LEGEND

-  EROSION BLANKET (24,380 S.Y.)
-  STRAW (9.9 ACRES)
-  RIPRAP (57.0 S.Y.)
-  SILT FENCE (1870.0 L.F.)
-  INLET PROTECTION (12.0 EACH)

NOTE:

STATIONS AND OFFSETS GIVEN ARE FOR REFERENCE.



LK009

DATE	REVISION

VILLAGE OF LAKE IN THE HILLS
 600 Harvest Gate
 Lake in the Hills, Illinois 60156 Telephone:
 847.960.7410
 Fax: 847.960.7515



FILENAME	DATE	LAYOUT	DATE
09A0143	APRIL 22, 2011	LDH	2/3/11
30-EC PLAN.DWG		LDH	2/3/11
1"=100'		RMH	4/13/11

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 815 Commerce Drive Suite 200
 Oak Brook, Illinois 60523

EROSION CONTROL PLAN
 REPLACE MAIN APRON, STAGE 1
 GRADING AND DRAINAGE
 IDA No. 3CK-4037 AIP No. 3-17-0112-B14

30

30 of 32 sheets

REVISION

DATE

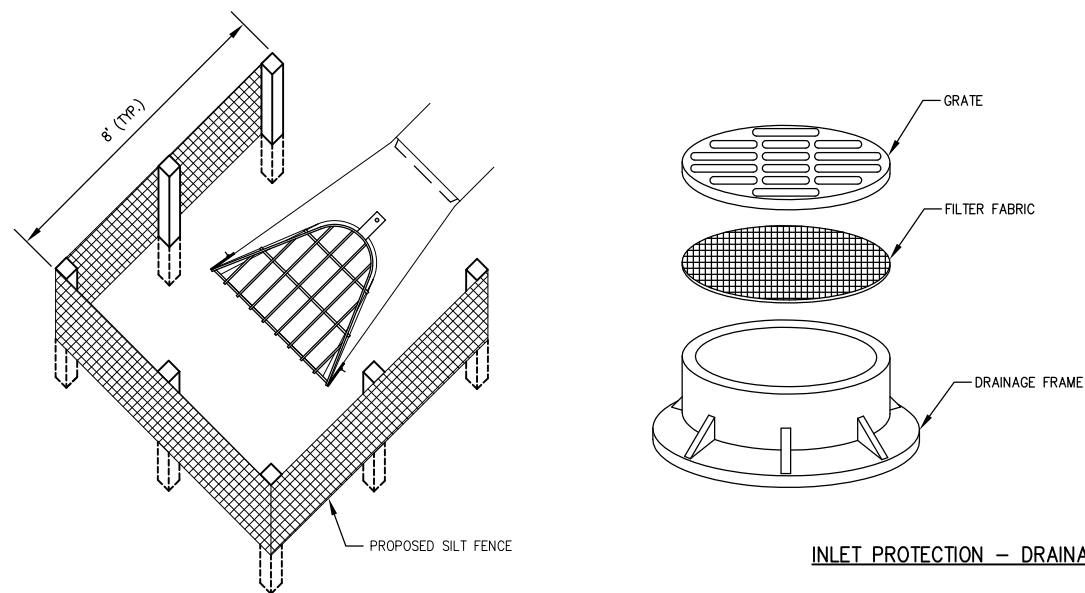
VILLAGE OF LAKE IN THE HILLS
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Hanson No. 09A0143	LDH	2/3/11
Filename 31-EC-DETAILS.DWG	LDH	2/3/11
Scale NONE	LDH	2/3/11
Date APRIL 22, 2011	RMH	4/13/11
LAYOUT		
DRAWN		
REVIEWED		

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EROSION CONTROL DETAILS
 REPLACE MAIN APRON, STAGE 1
 GRADING AND DRAINAGE
 IDA No. 3CK-4037 AIP No. 3-17-0112-B14

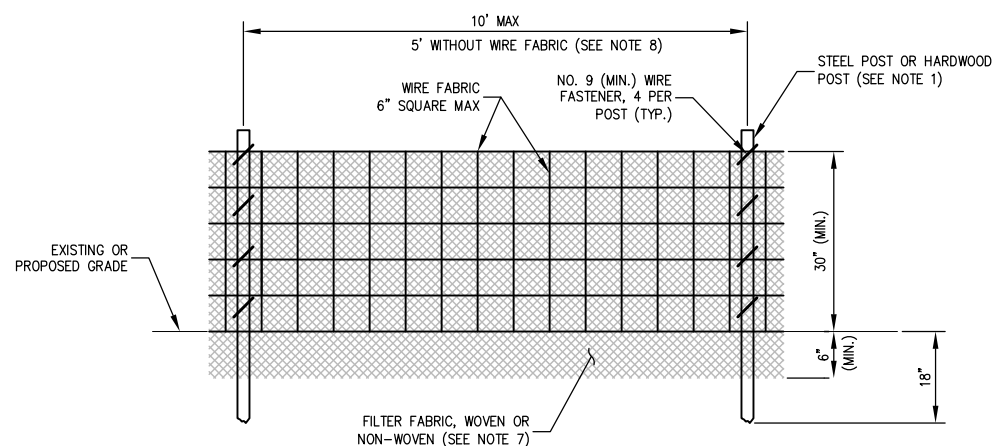


SILT FENCE PLACEMENT AT FLARED END SECTIONS (FES)

INLET PROTECTION - DRAINAGE STRUCTURE FILTER WRAP

NOTES:

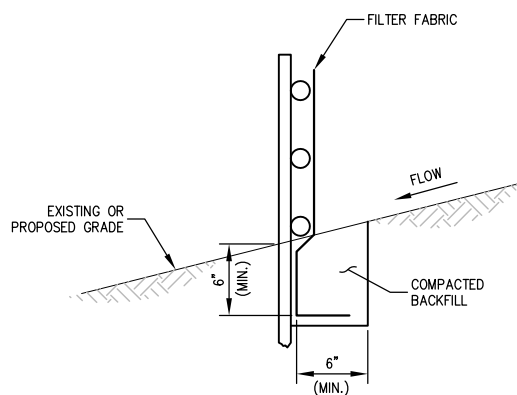
1. FILTER WRAP TO BE PLACED IN ALL MANHOLES AS SHOWN.
2. FABRIC SHALL BE IN CONFORMANCE WITH MATERIALS SPECIFIED FOR SILT FENCE.
3. FABRIC SHALL OVERLAY FRAME BY 2 INCHES (MINIMUM).
4. CONTRACTOR SHALL CLEAR DEBRIS AND SILT AS REQUIRED FROM FABRIC TO MAINTAIN DRAINAGE THROUGH THE STRUCTURE.
5. FABRIC SHALL REMAIN IN PLACE UNTIL TURFED AREAS HAVE DEVELOPED A MINIMUM OF 80% OF COVERAGE.
6. COST OF FILTER WRAP SHALL BE INCIDENTAL TO INLET PROTECTION.



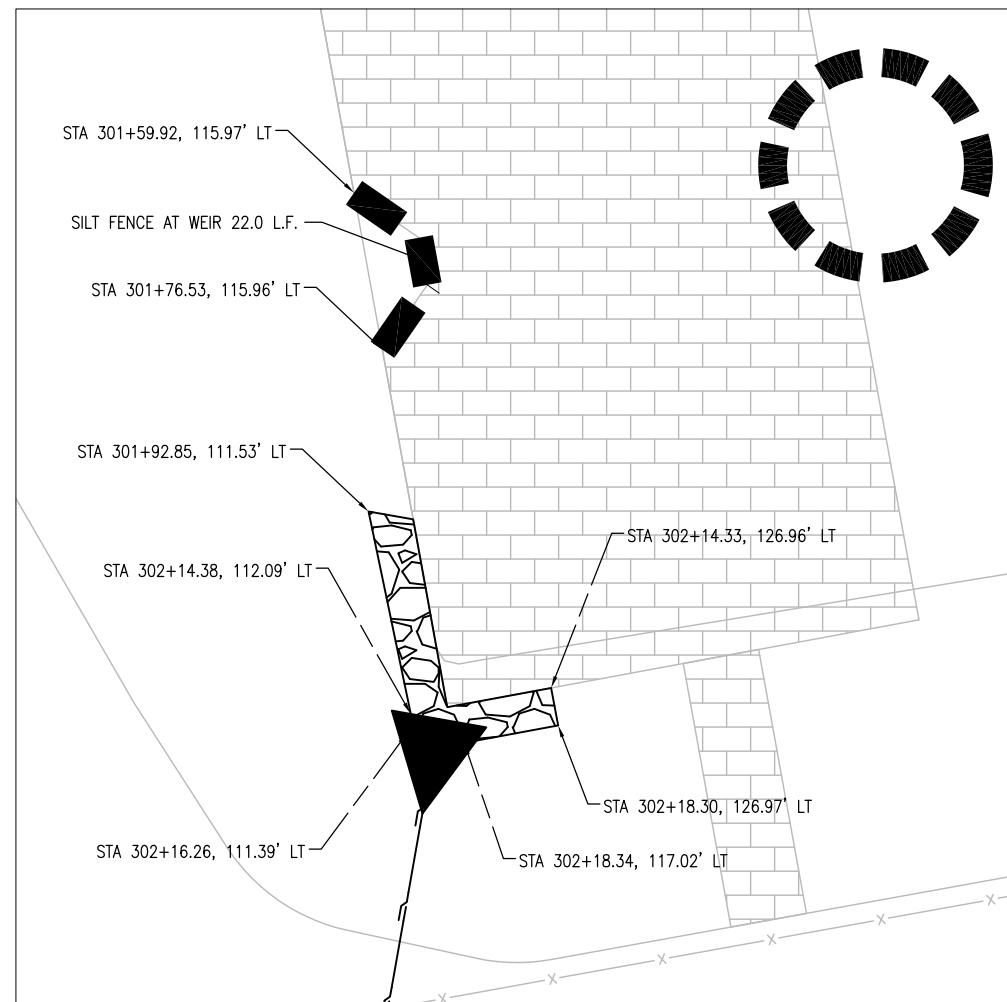
ELEVATION

NOTES:

1. FENCE POST SHALL BE EITHER STEEL "T" LINE POST OR HARDWOOD POST WITH A MINIMUM SECTIONAL AREA OF 3.0 SQUARE INCHES.
2. TOP AND BOTTOM WIRE OF WIRE FABRIC SHALL BE MINIMUM GAGE NO. 9. INTERMEDIATE WIRES OF THE WIRE FABRIC SHALL BE MINIMUM GAGE NO. 11.
3. WIRE FABRIC SHALL BE SECURELY FASTENED TO FENCE POSTS WITH NO. 9 GAGE WIRE MINIMUM. FOUR (4) FASTENERS PER POST REQUIRED.
4. FILTER FABRIC SHALL BE SECURELY FASTENED TO WIRE FABRIC AND POSTS WITH TIES OR STAPLES SPACED AT 12" APART AT THE TOP, MIDDLE AND BOTTOM.
5. WHEN TWO SECTIONS OF FILTER FABRIC MEET, THEY SHALL BE OVERLAPPED BY 6" AND FOLDED AND ATTACHED TO THE WIRE FABRIC AT A POST.
6. FILTER FABRIC SHALL BE IN ACCORDANCE WITH SPECIAL PROVISIONS WITH EQUIVALENT OPENING SIZE OF AT LEAST 30 FOR NONWOVEN AND 50 FOR WOVEN.
7. WIRE FABRIC MAY BE OMITTED IF A MAXIMUM OF 5 FEET IS USED FOR POST-TO-POST SPACING.
8. SOIL DISTURBANCE SHALL BE CONDUCTED IN SUCH A MANNER AS TO MINIMIZE EROSION. SOIL STABILIZATION MEASURES SHALL CONSIDER THE TIME OF YEAR, SITE CONDITIONS AND THE USE OF TEMPORARY OR PERMANENT MEASURES.
9. ALL STORM SEWERS THAT ARE OR WILL BE FUNCTIONING DURING CONSTRUCTION SHALL BE PROTECTED BY AN APPROPRIATE SEDIMENT CONTROL MEASURE.
10. SILT FENCE SHALL BE INSTALLED PRIOR TO ANY GRADING WORK IN THE AREA TO BE PROTECTED. PERIODIC INSPECTION SHALL BE PERFORMED AND REQUIRED MAINTENANCE SHALL BE PROVIDED AFTER EACH RAIN EVENT.
11. MAINTENANCE SHALL BE PERFORMED AS NEEDED AND MATERIAL REMOVED AND REPLACED WHEN BULGES DEVELOP IN THE SILT FENCE.
12. IF DEWATERING SERVICES ARE USED, ADJOINING PROPERTIES AND DISCHARGE LOCATIONS SHALL BE PROTECTED FROM EROSION. DISCHARGES SHALL BE ROUTED THROUGH AN EFFECTIVE SEDIMENT CONTROL MEASURE (E.G. SEDIMENT TRAP, SEDIMENT BASIN, OR OTHER APPROPRIATE MEASURE).
13. FENCE POSTS SHALL BE REMOVED WHEN DIRECTED AT PROJECT END.
14. THE EROSION CONTROL MEASURES INDICATED ON THE PLANS ARE THE MINIMUM REQUIREMENTS. ADDITIONAL MEASURES MAY BE REQUIRED, AS DIRECTED BY THE ENGINEER OR GOVERNING AGENCY.



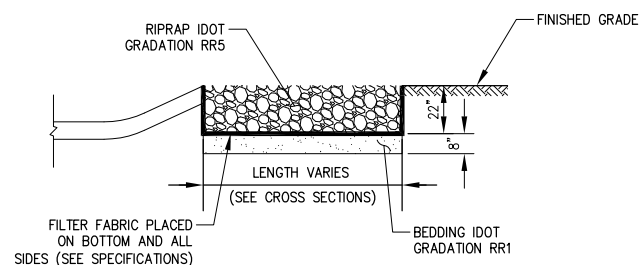
FABRIC ANCHOR DETAIL



RIPRAP DETAIL FOR OUTLET S12

NOTES

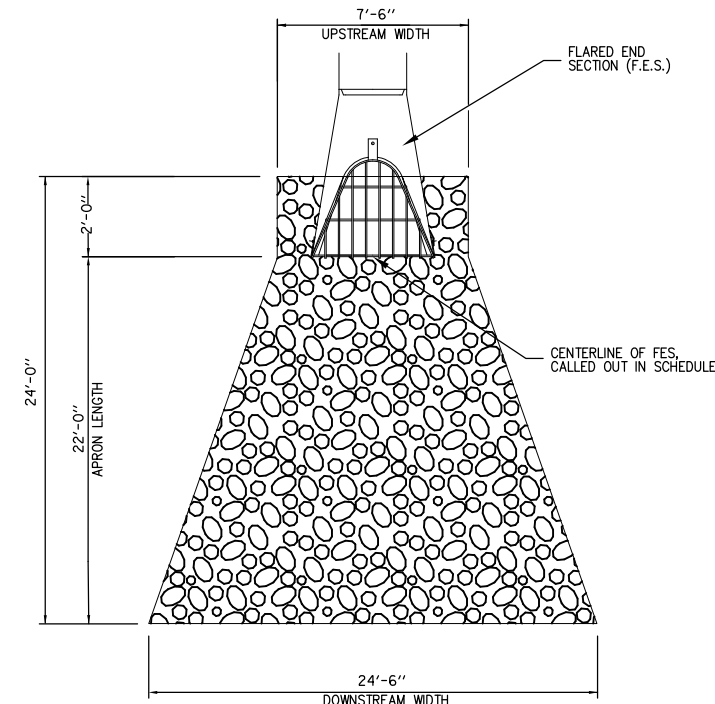
1. COST OF FILTER FABRIC IS INCIDENTAL TO RIPRAP.
2. CENTERLINE OF FLARED END SECTION WILL BE CALLED OUT IN SCHEDULE. THE WIDTH OF THE RIPRAP WILL BE CENTERED ON THIS LOCATION. THE PLACEMENT OF THE RIPRAP CAN BE DETERMINED FROM THIS LOCATION.
3. IF RIPRAP IS PLACED AT OUTLET OF DITCH, THE CENTERLINE OF THE DITCH OUTLET WILL BE CALLED OUT ON PLAN.



NOTES

1. COST OF FILTER FABRIC IS INCIDENTAL TO RIPRAP.
2. WIDTH (W) OF RIPRAP VARIES, SEE PLAN.

RIPRAP SECTION



RIPRAP DETAIL FOR OUTLET S7

REVISION	DATE

VILLAGE OF LAKE IN THE HILLS
 600 Harvest Gate
 Lake in the Hills, Illinois 60156 Telephone:
 847.960.7410
 Fax: 847.960.7515



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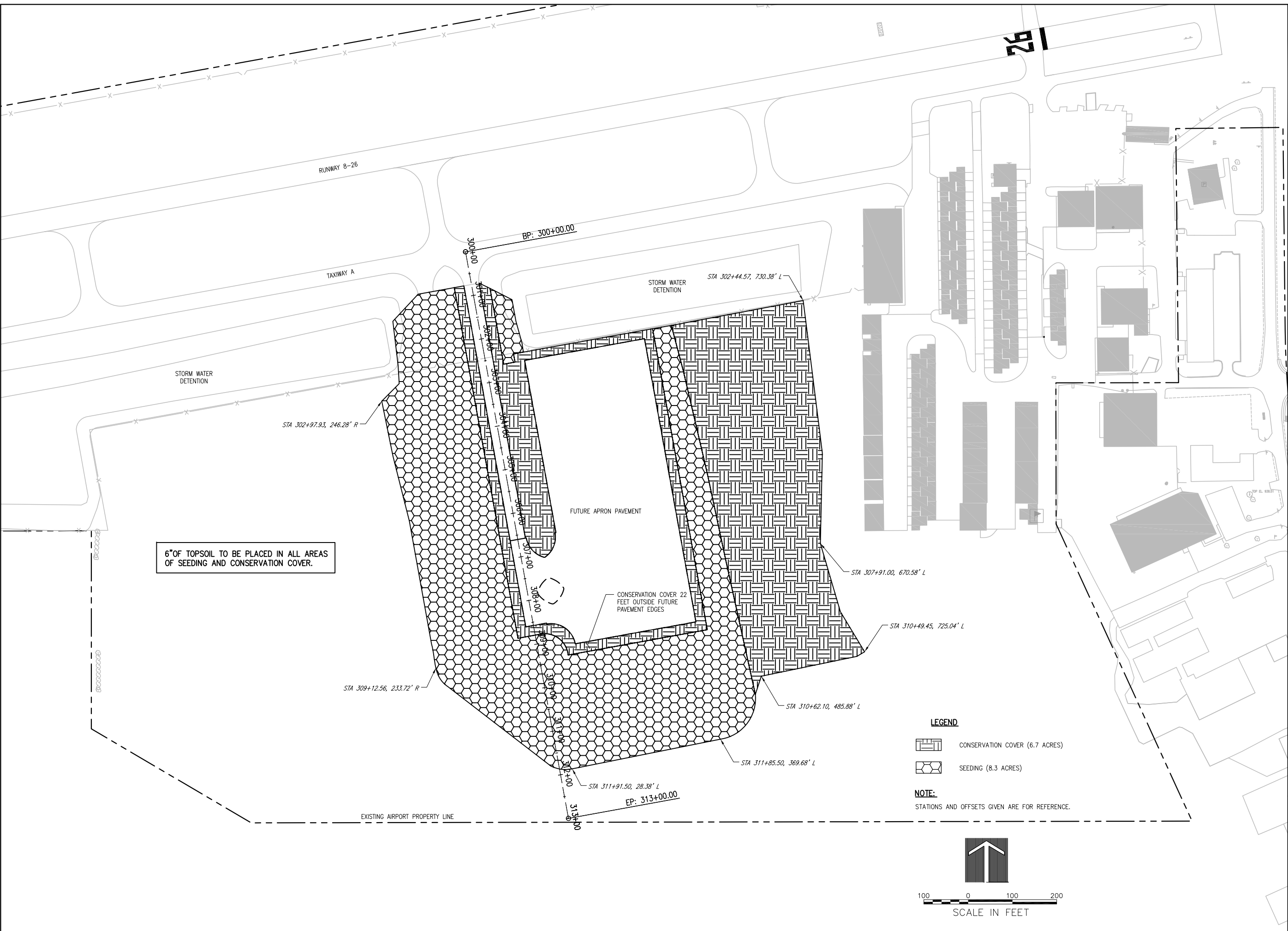
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LANDSCAPING PLAN

**REPLACE MAIN APRON, STAGE 1
 GRADING AND DRAINAGE**
 IDA No. 3CK-4037 AIP No. 3-17-0112-B14

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6" OF TOPSOIL TO BE PLACED IN ALL AREAS OF SEEDING AND CONSERVATION COVER.

LEGEND
 CONSERVATION COVER (6.7 ACRES)
 SEEDING (8.3 ACRES)
NOTE:
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