SD EForm - 1585LD V4

FORM 2: Application for uses other than irrigation
(type or print)

FILE COPY

Mail to: PMB 2020 DENR - Water Rights 523 E Capitol Ave Pierre, SD 57501-3182 ph. (605) 773-3352	(office use only) No. 8161-3 Hydrologic Unit 10140105 Basin Missouri R Newspaper Central Dakota Times, PO Box 125 Chamberlain 605 234-0266 (Wed) 57325 Daily Republic, PO Box 1288, Mitchell 57301 605 996-5514

RECEIVED
MAY 18 2015
WATER RIGHTS PROGRAM

Application For Permit To Appropriate Water Within The State Of South Dakota

Check use(s) of water:

- [ ] Municipal
- [ ] Rural Water System
- [ ] Domestic (over 18 gpm)
- [ ] Suburban Housing
- [ ] Commercial
- [ ] Industrial
- [ ] Recreational
- [x] Fish & Wildlife
- [x] Other Livestock Water
- [ ] Institutional
- [ ] Geothermal Heat

Type of Application: **(check one)**
- [x] **New**
- [ ] **Vested Right** (Use predates Mar 2, 1955)
- [ ] **Future Use Reservation**
- [ ] **Place to Beneficial Use Water Reserved by Future Use Permit No.** _____
- [ ] **Amendment/Correction to Permit No.** _____

Description of amendment/correction: (i.e. change diversion point(s), add diversion point(s), change use, etc.)

1. Name to Appear on Water Permit Michael Kroupa
   (check one) [x] Owner [ ] Tenant/lessee [ ] Owner's Legal Agent _____
   (name and complete address if different than above name)
   Mailing Address 35680 241st St. (Address) Kimball (City) SD (State) 57355 (Zip Code)
   Home Phone 605-778-6303 Cell 605-680-1083 Email _____
2. Amount of water claimed _____ *CFS or _____ **GPM 48.45 ***AF
   (*Cubic Feet per Second) (**Gallons per Minute) (***Acre Feet - storage capacity of dam/dugout or annual use if applicable)
3. Source of water supply Surface Runoff Water Impounded: NE¼ SW¼ & NW¼ SE¼ Sec 10
4. Location of point of diversion Dam in NE1/4 SW1/4 Sec. 10-T105N-R68W County Brule
   (example - 3 wells in SW1/4 NE1/4 section 12-T104N-R53W)
   If not a public water supply (e.g. municipal), will water be used outside of the area described above? [ ] Yes [x] No
   If "Yes," where will water be used? _____
   (example - NW1/4 section 12-T104N-R53W)
5. County or counties where water will be used Brule
6. Annual period during which water is to be used ~~March - November~~ Jan 1 – Dec 31
7. Give a description of the project. When available include any preliminary engineering report or other reports or information that will help explain the project. (Attach sheet if more space is needed)
   See attached design completed by Natural Resources Conservation Service Engineer, Daniel Ostrem.

STEVEN D. SPAWN NOTARY PUBLIC STATE OF SOUTH DAKOTA Seal

My Commission Expires: October 9, 2019

I, Michael Kroupa, the applicant, certify that I have read this application, have examined the attached map, and that the matters stated are true.

Date Steven D. Spawn Notary Public May 7, 2015

2012-09

Attachments: Attach Form 2A if diversion is from a well or dugout, or if storage of water is proposed. Also, attach map and any other technical information. (see instructions)

Form 2A
(Complete applicable portions only)

Supplemental Information

(type or print)

1. Well Information (check one or both as applicable) ☐Drilling new well(s) ☐Using existing well(s)

a) If new wells, how many ___ Have test holes been drilled ☐Yes ☐No Drilled by _____
(if yes, please provide copies of logs)

b) If existing wells, how many ___ Provide copy of log(s), if available. Drilled by _____

c) Well Depth _____ Depth to Top of Water Bearing Material _____ Depth to Water from Surface _____

d) Distance to nearest existing domestic well:

On applicant's property _____ On property owned by others _____

2. Wastewater Disposal System Information

a) Type of System (i.e. septic tank, drain field) _____

b) System Capacity (gallons) _____ Year Constructed _____

c) Connected to the City of _____ Sanitary System

3. Dugout Information

a) Surface Dimensions _____ Depth _____

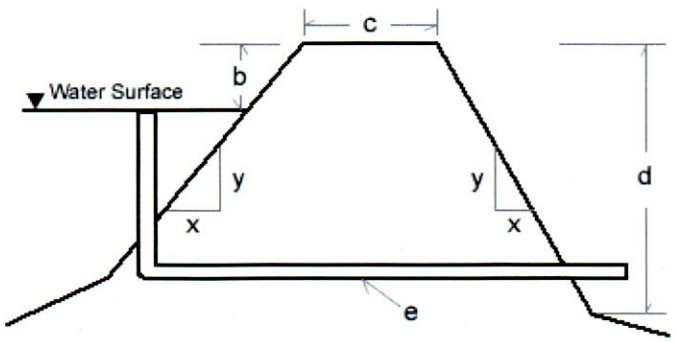
b) Depth to water (ground surface to water level) _____

4. Water Storage Dams

If the proposed water use system contains one or more storage dams, please furnish the information requested below for each dam. The locations of the dams need to be shown on the map submitted with the application.

a) If a private engineering firm or government agency was involved in the design of this dam, please give their name and address:

Natural Resources Conservation Service
Attn: Daniel Ostrem, P.E.
1820 N. Kimball St.
Mitchell, SD 57301
(605) 996-1564



b) Freeboard 2.6 Feet

c) Crest Width 14 Feet

Crest Length 330 Feet

d) Height 24.9 Feet

e) Primary Outlet Capacity 205 cfs

If pipe, diameter _____

f) Secondary Spillway Capacity _____

Spillway Width _____

g) X & Y Slope (e.g. 3 to 1 is a typical slope)

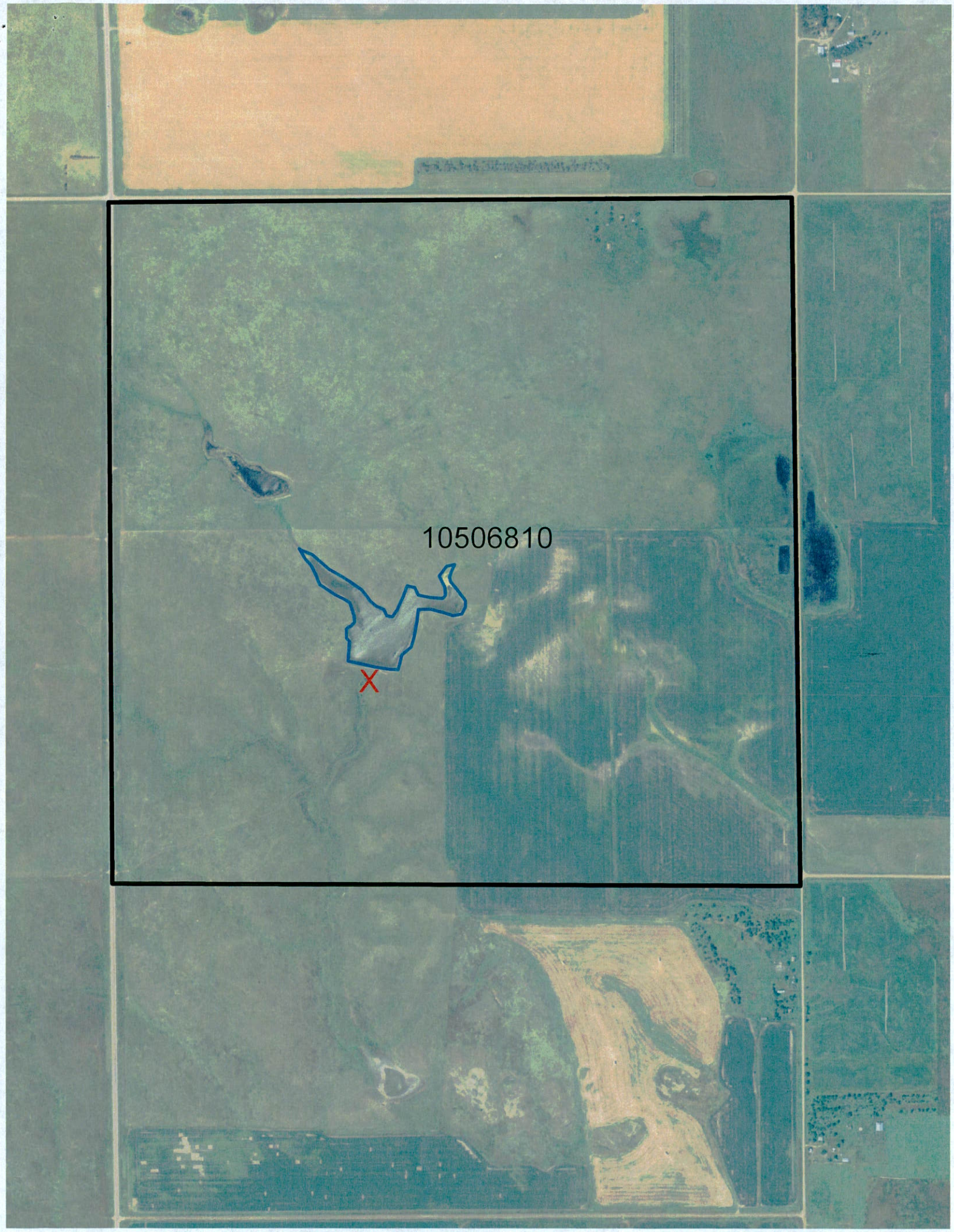
Upstream 3:1

Downstream 2.5:1

h) Surface Area of Impoundment 9.5 Ac.

i) Storage 48.45 Acre Feet

j) Drainage Area Above Dam 412 Acres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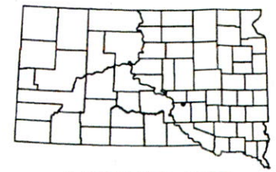
SKETCH PLAN OF DAM AND RESERVOIR AREA

Scale: 1 Inch = 12,500 Feet



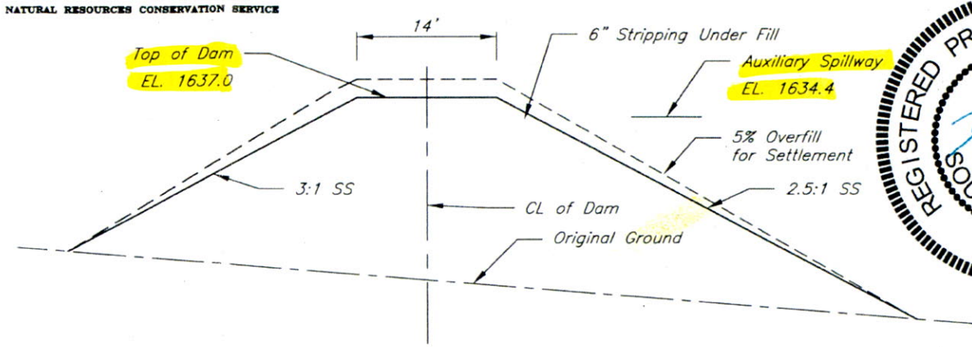
LOCATION MAP

PLANS FOR THE CONSTRUCTION OF A

POND (378) for MICHAEL KROUPA in BRULE COUNTY, SOUTH DAKOTA

PREPARED BY
U.S. DEPARTMENT OF AGRICULTURE
NATURAL RESOURCES CONSERVATION SERVICE

TABLE OF QUANTITIES			
ITEM	UNIT	QUANTITY	AS-BUILTS
Earthfill Class S – Embankment	Cu. Yd.	1289	
Earthfill Class S – Stripping	Cu. Yd.	171	
Total Earthfill	Cu. Yd.	1460	
Topsoil Auxiliary Spillway	Cu. Yd.	280	
Spillway Excavation below Stripping	Cu. Yd.	812	
Seeding (Earthfill and Auxiliary Spillway)	Acre	1	



TYPICAL CROSS SECTION OF DAM

REGISTERED PROFESSIONAL ENGINEER
REG. NO. 11922
DANIEL T. OSTREM
SOUTH DAKOTA
5/5/15

SEDIMENT YIELD					
Erodibility Area	Gross Rate (A.F./Ac./Yr.)	Drainage Area (Acres)	Delivery Rate (%)	Design Period (Years)	Req. Sed. Volume (Ac.-Ft.)
K	0.0059	412.5	32	20	15.580

STRUCTURE DATA		
Length of Top of Dam	313	Feet
Water Depth to Crest of Auxiliary Spillway	20.4	Feet
Height of Downstream Toe to Top of Dam	27.5	Feet
Effective Height	24.9	Feet
Product of Storage X Effective Height	1206.4	Ac.-Ft²

POOL DATA			
	ELEV.	AREA	STORAGE
Crest of Auxiliary Spillway	1634.4	9.50 Ac.	48.45 Ac.-Ft
Top of Dam	1637	12.13 Ac.	72.30 Ac.-Ft

NO EXCAVATOR MAY BEGIN ANY EXCAVATION WITHOUT FIRST NOTIFYING THE ONE-CALL NOTIFICATION CENTER OF THE PROPOSED EXCAVATION AT 1-800-781-7474.

CONSTRUCTION NOTES

1. *If cultural resources are discovered during construction, discontinue construction and notify the local Natural Resources Conservation Service office.*
2. *The landowner is responsible for complying with all federal, state, and local laws.*
3. *Clear and grub the entire area within the work limits.*
4. *Any shale, gravel, or sand that is exposed during borrow operations shall be immediately backfilled with 2 feet of clay material.*
4. *All fill material must not contain frozen material, sod, roots, or other perishable material, or rock larger than eight inches in diameter as described in SD Construction Specification SD-7S.*
5. *Six inches topsoil will be incorporated into the earthfill to meet the neat lines shown on the typical section.*
6. *All areas top-dressed with topsoil and disturbed during construction will be seeded according to SD Construction Specification SD-28.*

HYDRAULIC DATA		
Drainage Area	412	Acres
Annual Runoff Yield	9.3	Ac. Ft.
Time of Concentration	1.9	Hours
Runoff Curve Number	69	
Auxiliary Spillway, 50 Year – 24 Hour Rainfall	4.8	Inches
Peak Runoff 50 Year – 24 Hour Rainfall	252	CFS
Auxiliary Spillway Discharge	205	CFS
Auxiliary Spillway Flow Depth	1.45	Feet

SD CONSTRUCTION AND MATERIAL SPECIFICATIONS

SD-4 Stripping
SD-5 Excavation
SD-7S Earthfill – Class S
SD-10 Salvaging And Spreading Topsoil
SD-28 Seeding
For A Full Text Version See
http://www.sd.usda.gov/technical/SD_Engineering.html

NRCS HAZARD CLASS A
NRCS JOB CLASS IV

STATEMENT OF COMPLIANCE

Construction (was) (was not) completed in accordance with approved construction plans and specifications.

_____
JAA Date

POND WITHOUT PRINCIPAL SPILLWAY PIPE

		Date
Designed	D. Ostrem	4/27/2015
Drawn	D. Ostrem	4/27/2015
Checked	D. Edwards	5/4/2015
Approved	D. Edwards	5/8/15

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COVER
POND (378)

SW 1/4" S10 T105N R68W, Michael Kroupa Brule County, South Dakota

United States Department of Agriculture
Natural Resources Conservation Service

File No. Kroupa.dwg

Drawing No. 051515

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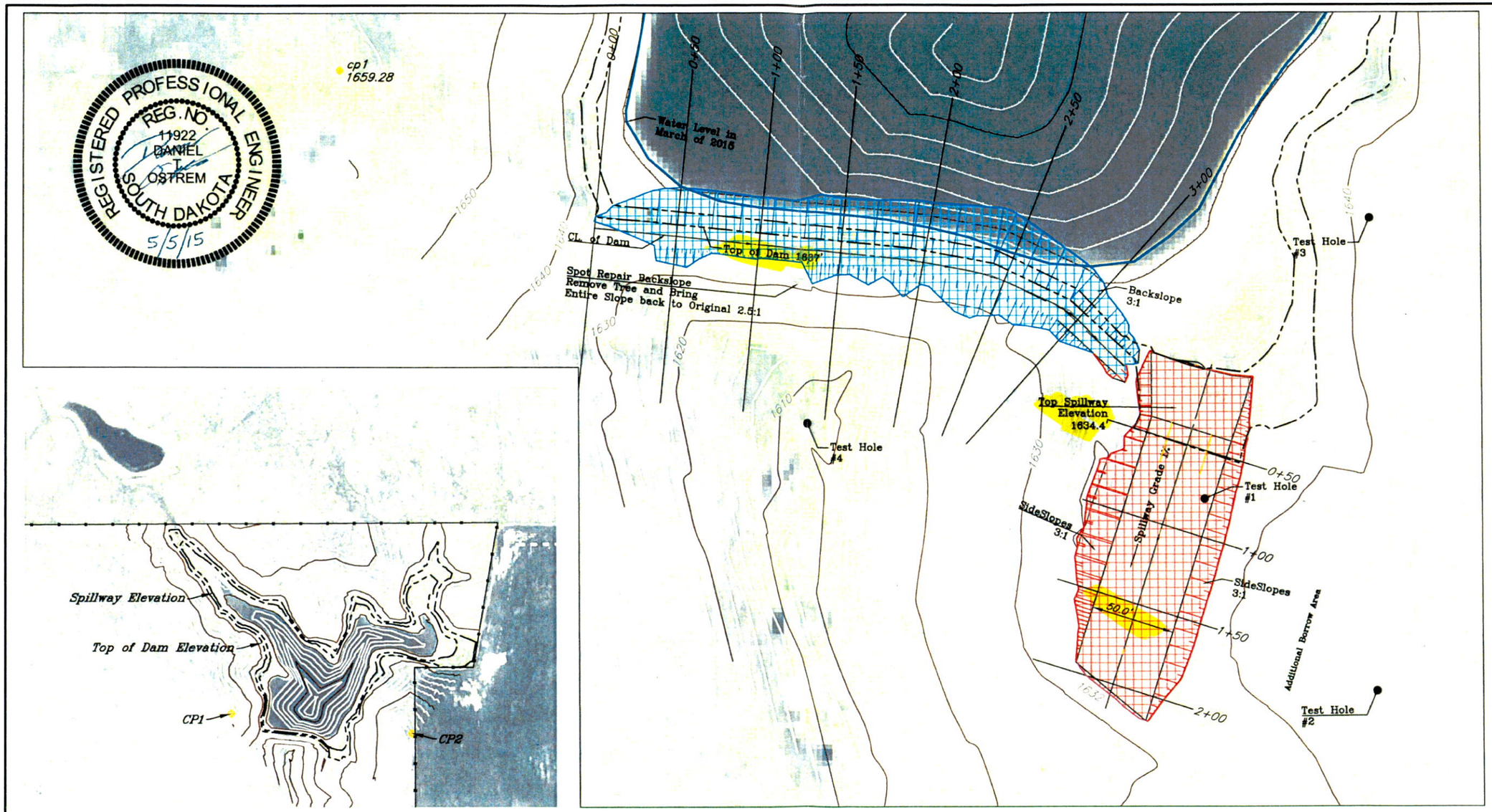
Sheet 1 of 5



BENCH MARKS				
NO.	Northing	Easting	Elevation	Description
Control Point (CP) Base 1	15951422.76	1645484.11	1659.28	Just North of Parking Area on West Side of Dam
Control Point (CP) 2	15951324.51	1646378.16	1658.27	Near Fence East of Dam

Stage Storage From SITES		
Elevation (ft)	Outflow (cfs)	Storage (AF)
1634.4	0	48.45
1634.66	1.12	50.84
1635.18	38.83	55.61
1636.35	395.39	66.34
1637	788.32	72.30

		Date
Designed	D. Ostrem	4/27/2015
Drawn	D. Ostrem	4/27/2015
Checked	D. Edwards	5/4/2015
Approved		5/8/15

PLAN VIEW
POND (378)

SW 1/4" S10 T105N R68W, Michael Kroupa Brule County, South Dakota

USDA United States Department of Agriculture
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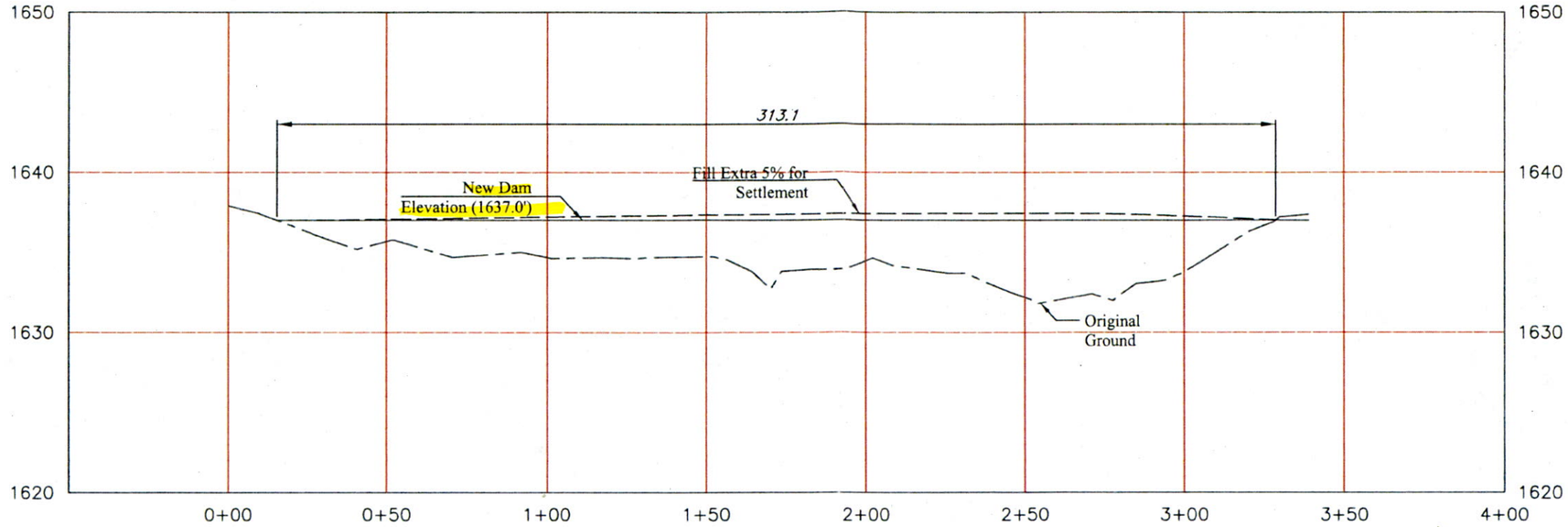
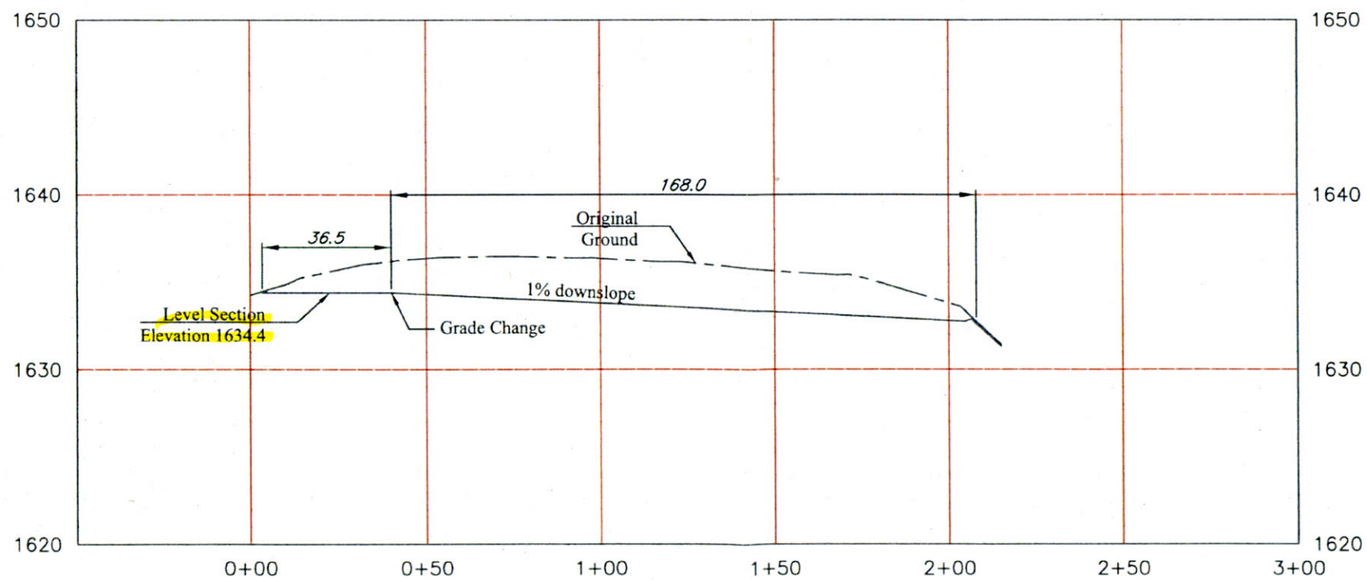


CL. OF DAM PROFILE



SPILLWAY PROFILE

40 0 40 80 120

Scale in Feet

Original Ground

Design Channel Bottom

REGISTERED PROFESSIONAL ENGINEER
REG. NO. 11922
DANIEL T. OSTREM
SOUTH DAKOTA
5/5/15

		Date
Designed	D. Ostrem	4/27/2015
Drawn	D. Ostrem	4/27/2015
Checked	D. Edwards	5/4/2015
Approved	D. Edwards	5/19/15

PROFILE
GRASSED WATERWAY

SW 1/4" S10 T105N R68W, Michael Kroupa Brule County, South Dakota

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Dam Cross Sections

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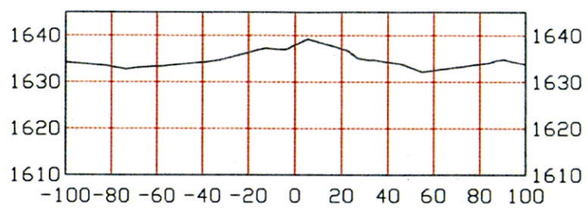

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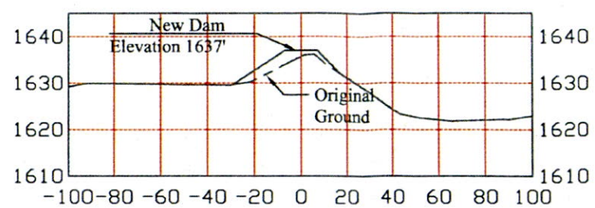

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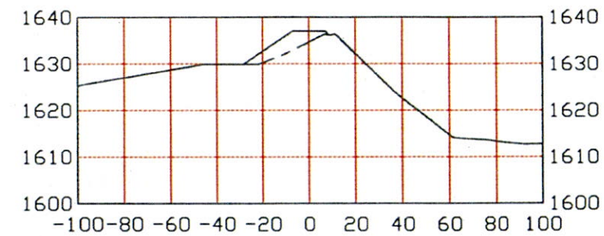

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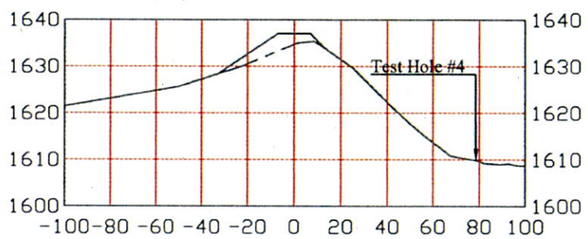

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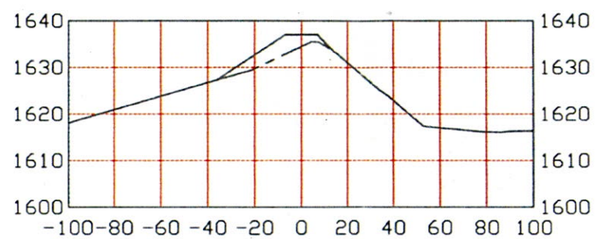

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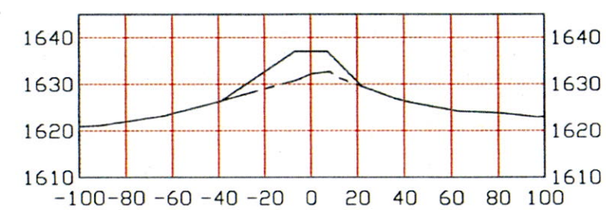

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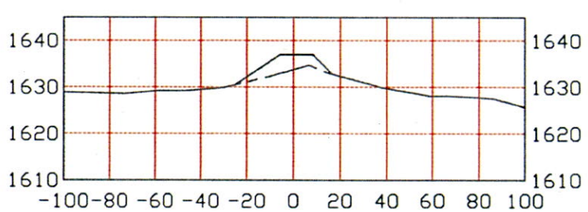
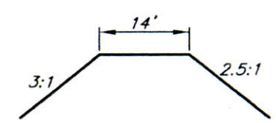


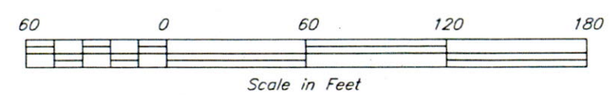
Original Ground

Design Channel Bottom



Smooth and Repair Backslope at Designated Locations

REGISTERED PROFESSIONAL ENGINEER
REG. NO. 11922
DANIEL T. OSTREM
SOUTH DAKOTA
5/5/15



		Date
Designed	D. Ostrem	4/27/2015
Drawn	D. Ostrem	4/27/2015
Checked	D. Edwards	5/4/2015
Approved	D. Edwards	5/8/15

DAM CROSS SECTIONS
POND (378)

SW 1/4" S10 T105N R68W, Michael Kroupa — Brule County, South Dakota

USDA United States Department of Agriculture
Natural Resources Conservation Service

File No. Kroupa.dwg

Drawing No. 051515

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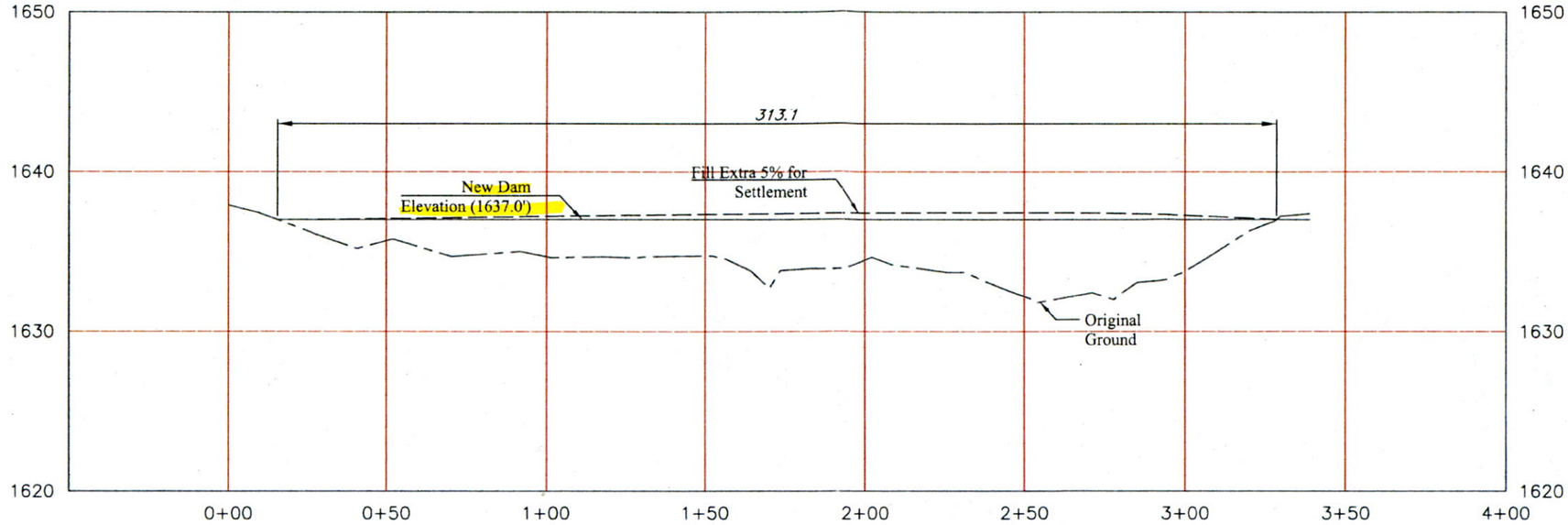

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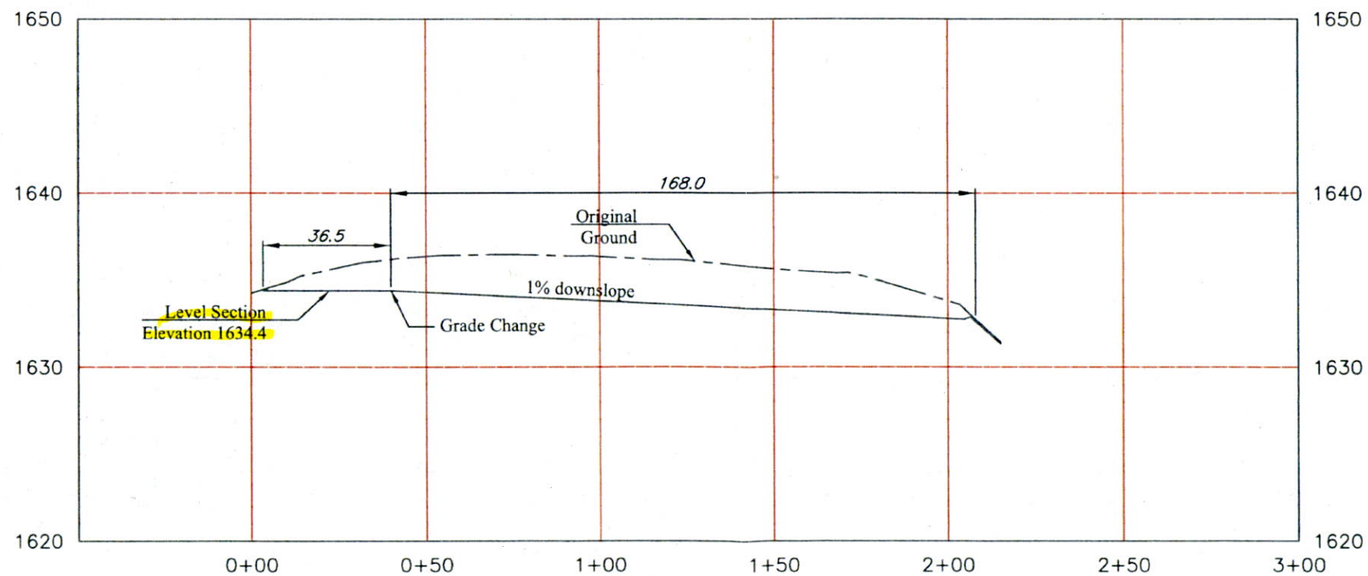
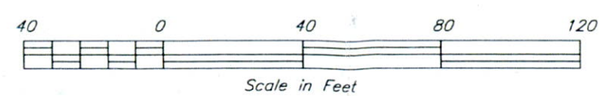


SPILLWAY PROFILE



Original Ground

Design Channel Bottom

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PROFILE
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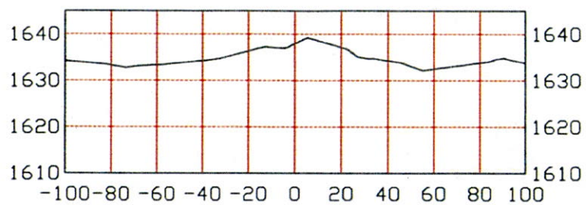

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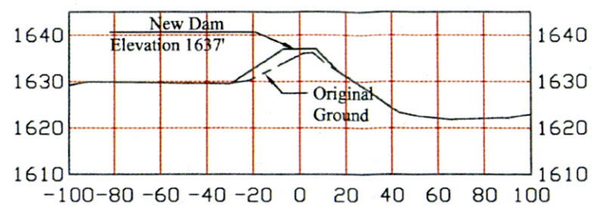

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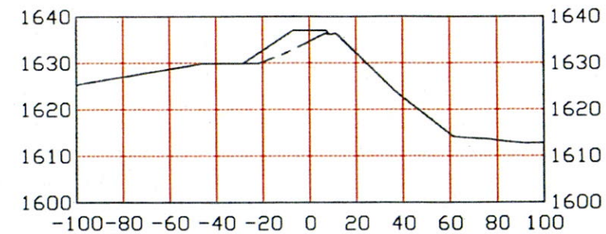

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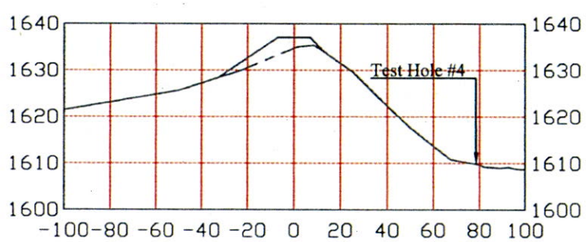

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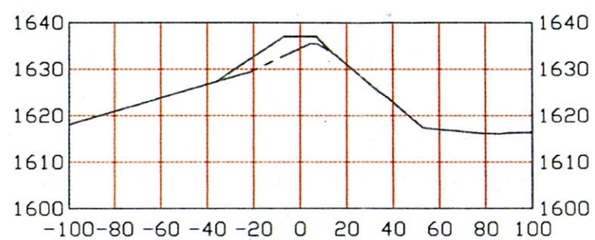

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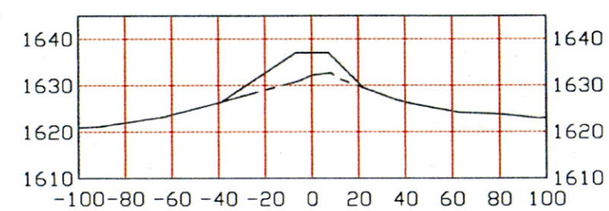

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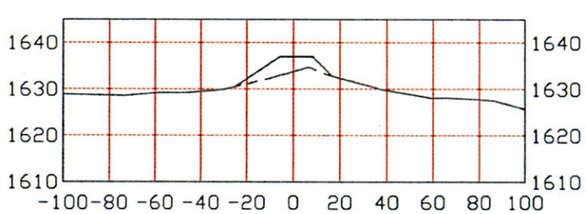
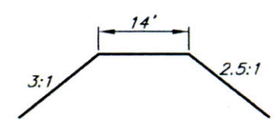


Original Ground

Design Channel Bottom



Smooth and Repair Backslope at Designated Locations

REGISTERED PROFESSIONAL ENGINEER
REG. NO. 11922
DANIEL J. OSTREM
SOUTH DAKOTA
5/5/15

60 0 60 120 180

Scale in Feet

		Date
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Drawn	D. Ostrem	4/27/2015
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DAM CROSS SECTIONS
POND (378)

SW 1/4" S10 T105N R68W, Michael Kroupa Brule County, South Dakota

United States Department of Agriculture
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