

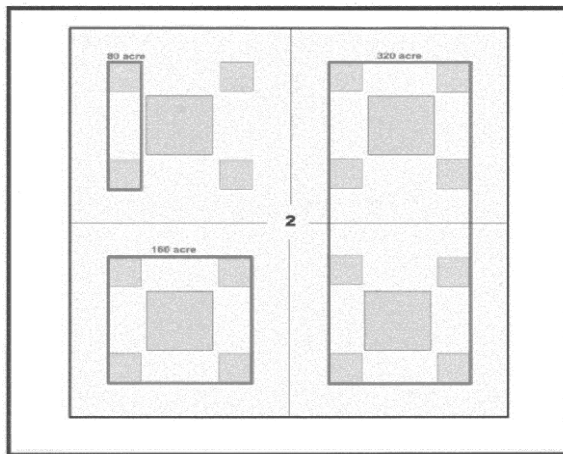
SURFACE AND MINERAL CONFLICTS: OIL AND GAS ACCESS AND NEW WEST REAL ESTATE DEVELOPMENT

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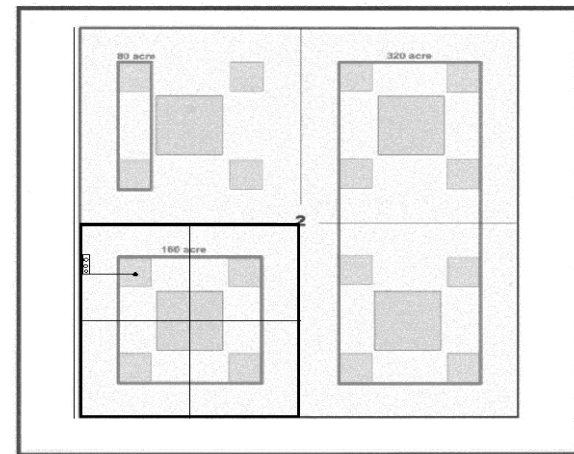
THE LANDOWNER/DEVELOPER TRACT






LEGEND

-  400' X 400' GWA Drilling Window
-  800' X 800' GWA Drilling Window
-  Designated Areas Within Drilling And Spacing Units (see waiver requirement in GWA Policy)

GWA SECTION ILLUSTRATION



LEGEND

-  400' X 400' GWA Drilling Window
-  800' X 800' GWA Drilling Window
-  Designated Areas Within Drilling And Spacing Units (see waiver requirement in GWA Policy)

GWA SECTION ILLUSTRATION

WHAT LAW GOVERNS SPLIT ESTATES

- **CONTRACT LAW:** Review the Lease, Addenda, and other documents including Surface Use Agreements
- **REAL PROPERTY LAW:** Separate Surface and Mineral Estate do exist; Created by Reservation or Grant
- Surface Estate is subject to an Implied Easement so that Mineral Owner may use that portion of Surface reasonable and necessary to extract minerals

GERRITY v. MAGNESS

- Operator may not destroy, interfere with or damage the surface owner's **Correlative** rights to the Surface
- Use of the surface that is not reasonable and necessary to development of the minerals is a **Trespass**
- Surface Owner continues to enjoy all rights and benefits of proprietorship consistent with the burden of the easement
- Both Estates must exercise their rights in a manner consistent with the other (both estates are mutually dominant and mutually servient)
- This “due regard” concept requires the operator to accommodate the surface owner to the fullest extent possible
- The nature of the accommodation by the operator is fact driven based on the surface uses and on alternatives available to the operator

THUNDERHEAD

- Trespass requires more than just inconvenience to the surface – there must be a material interference with the surface use
- Operator need not accommodate speculative, future uses of the Surface
- Operator well locations that were consistent with the lease, COGCC and County permits, state statutes and regulations were upheld
- Surface owner's alternate well locations which would have required setback waivers from neighbors and directional drilling were not reasonable

STATE AND LOCAL REGULATIONS

- State Regulations
 - COGCC Rule 318A
 - GWA 5-spot windows
 - 1 – 800' x 800' window per quarter section – in center of quarter section
 - 4 – 400' x 400' windows per quarter section – in center of quarter/quarter section
 - COGCC Rule 318A(e)
 - 3 infill/boundary wells per quarter section
 - Twinned 50' from existing wells
 - Directionally drilled at operator's expense
 - Water quality sampling

STATE AND LOCAL REGULATIONS

- State Regulations
 - COGCC Rules 603 and 604
 - Wells setback 150' or 1 ½ times rig height from occupied building, public road, utility or railroad (1.6 acres lost)
 - Wells setback 150' from surface property line
 - Tanks setback 2 diameters from property boundary
 - Tanks setback 75' from wells and separators
 - At time of installation, tanks setback 200' from residences, occupied buildings and occupied outside areas (2.9 acres lost)
 - High Density – 350' from wellbores and tanks to building units, schools, assembly buildings and other buildings
 - Tanks and production equipment 350' from building units (8.8 acres lost)
 - Rulemaking Underway for HB 1341 and HB 1298
 - New Permit Procedure
 - Long Range Planning on Regional Basis
 - Environmental and Wildlife Concerns

STATE AND LOCAL REGULATIONS

- Local Regulations

**–350 FEET (8.8 Acres
Lost)**

- Thornton – 350' setback from wells and production sites to occupied buildings
- Erie
 - 150' setback from existing wells and production sites to occupied buildings
 - 350' setback from future wells and production sites to occupied buildings
- No open space credit for developers

PRIOR BILL: H.B. 05-1219

- Expand duties of Operator before obtaining a permit to drill:
 - Negotiate in good faith with surface owner for a surface use agreement regarding, without limitation:
 - Location of facilities
 - Interim and final reclamation
 - Minimization of surface damages
 - Compensate surface owners for loss of value to surface resulting from mineral operations
 - Select an appraiser to value the surface if no agreement is reached
 - Arbitrate if agreement cannot be reached from the appraisal
- Operators' view: Too much cost and delay to obtain permit; No prior legal requirement to pay any damages (other than crop damage) for use of surface or to go to arbitration
- Landowners/Developers' view: Bill would level the playing field in surface use negotiations; Operators who never intend to drill and just shake down the developer for money will have less bargaining power

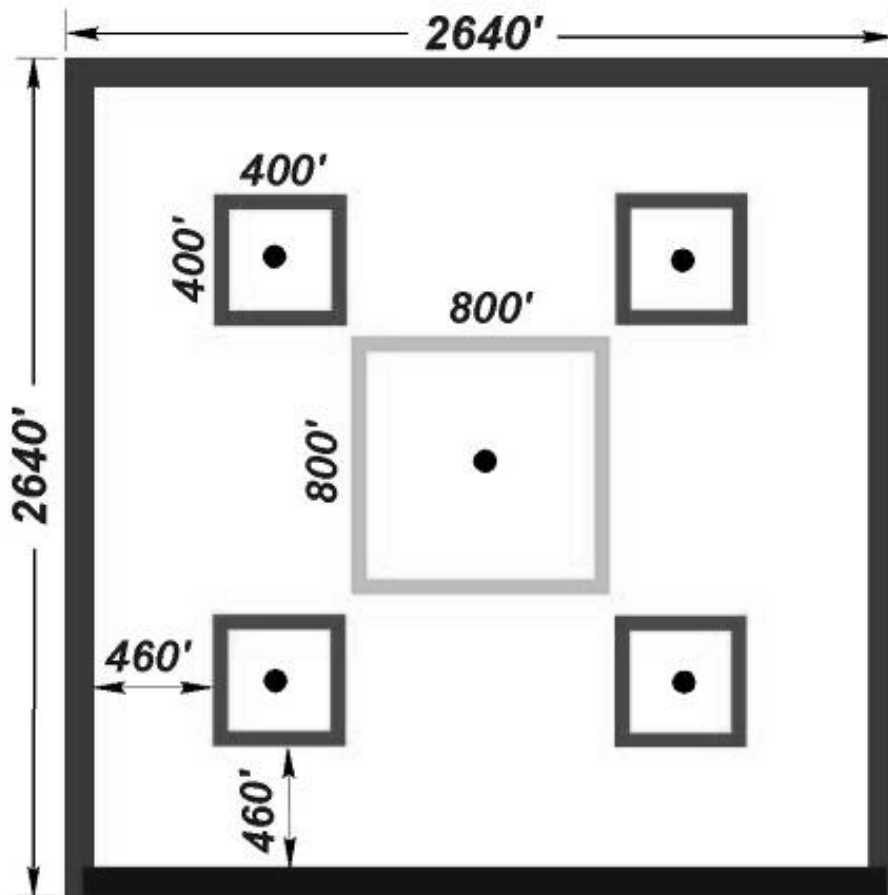
PRIOR BILL: H.B. 06-1185

- Legislative Declaration and COGCC's Powers to Include Protection of the Interests of Surface Owners
- Drilling Permit Conditions: Surface Use Agreement or Written Settlement Offer for Surface Damages and \$25,000 Bond
- Surface Use Agreement to Address:
 - Surface Resources
 - Water Rights and Quality
 - Reclamation
 - Payment for Surface Damages Caused by Oil and Gas Operation
- Surface Damages Based on Decrease in Fair Market Value Reasonably Expected to Result from Oil and Gas Operations
 - Loss of Agricultural Production and Income

PRIOR BILL: H.B. 06-1185

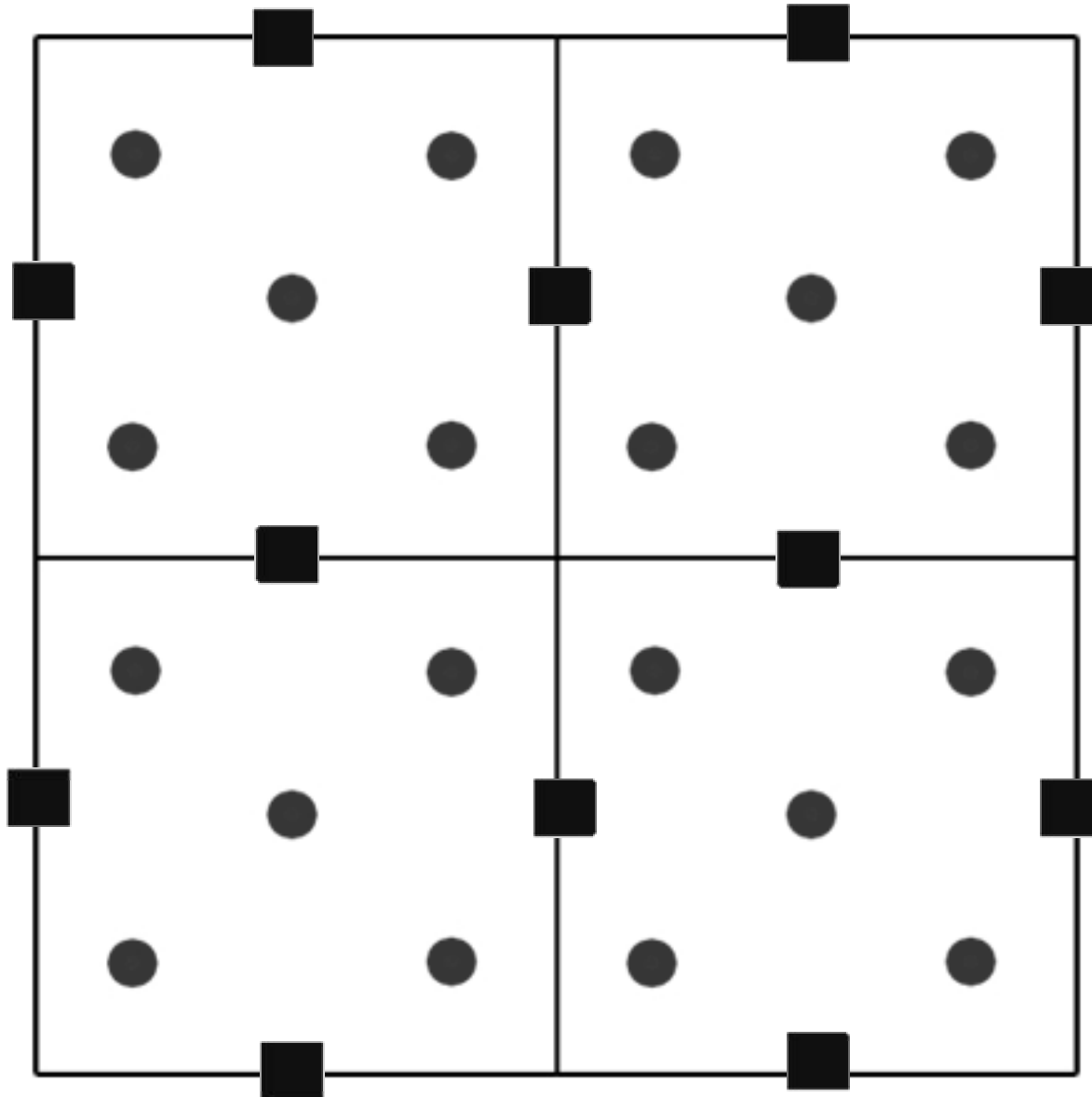
- Lost Land Value
 - Lost Use of and Access to the Surface Owner's Land
 - Injury to Water Rights and Quality
 - Damage to Personal Property
 - Lost Value of Improvements
- Operator May Bond and Obtain the Drilling Permit if Offer Refused or Ignored for 30 Days
- Surface Owner May Commence Civil Action for Damages within 2 Years of Surface Damage
- Notice Under H.B. 1088 Changed – Notice Provided to Mineral Owners and Lessees Who Record a Request for Notification
 - Eliminates Need for Developers and Surface Owners Performing a Mineral Title Opinion

REVISION OF RULE 318A

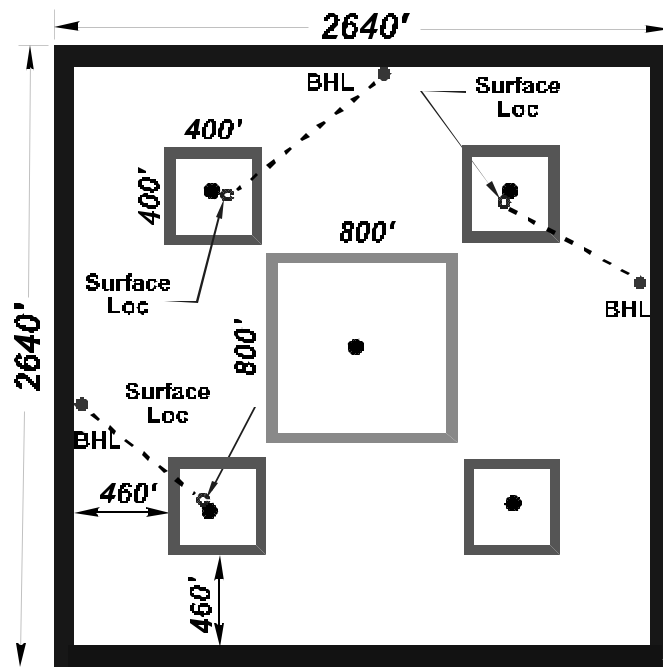


- DRILLING WINDOWS UNDER PREVIOUS RULE ESTABLISHED JUNE 1, 1998
- 5 WELLS PER FORMATION IN 160 ACRES = 32-ACRE DENSITY

COGCC Rule 318A(e)



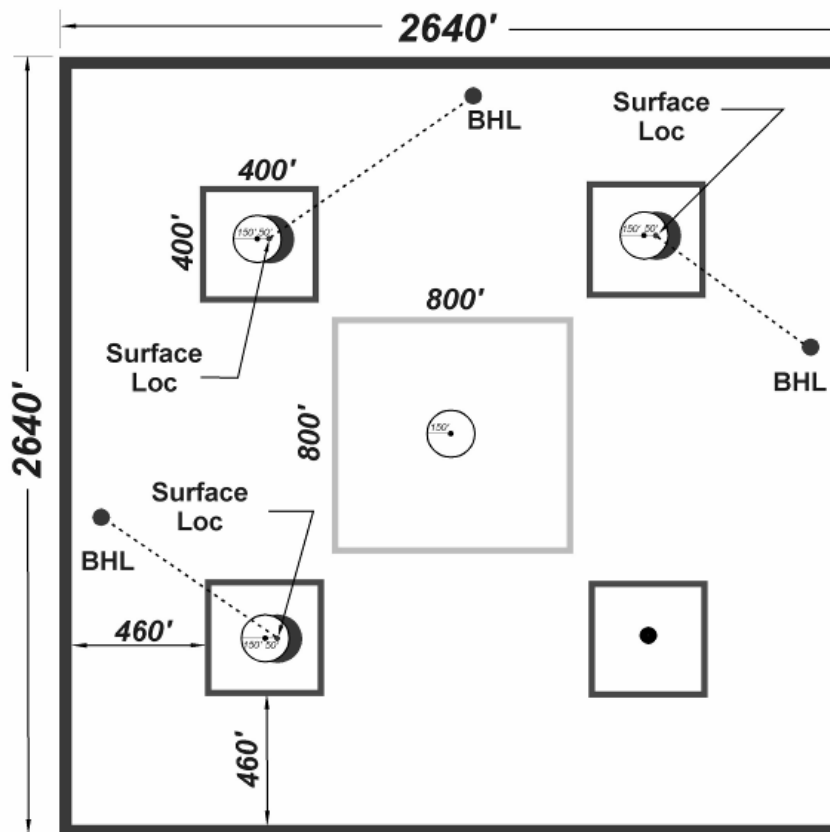
RULE 318Ae



- PREVIOUS RULE 318A LOCATIONS
- BOTTOM HOLE LOCATIONS UNDER RULE 318Ae

- RULE 318Ae ALLOWS 8 WELLS PER FORMATION IN 160 ACRES = 20-ACRE DENSITY.
- SURFACE IMPACTS WILL BE MINIMIZED. BOTTOM HOLE LOCATIONS WILL BE REACHED USING DIRECTIONAL DRILLING. NEW WELLS WILL “TWIN” EXISTING WELLS IN THE DRILLING WINDOW UNLESS A SURFACE USE AGREEMENT OR WAIVER IS OBTAINED FROM A SURFACE OWNER.

Improved Surface Utilization



Setback Area

- 5 Well Standard Safety Setback: 5 wells x 1.62 acres = 8.10 acres or 5% of 160 acres
- 8 Well Standard Safety Setback: 8.10 acres + (.35 acres x 3 new wells) = 9.15 acres or 5.7% of 160 acres
- New 318A Wells Increase Standard Safety Setback by 1.05 acres or .7% of 160 acres

Original Well •

New 318A Well •

NEW ACT: H.B. 07-1252

- Codifies Reasonable Accommodation Definition from Magness
- Operator is to Minimize Intrusion Upon and Damage to the Surface
- Select Alternative Locations for Wells, Roads, Pipelines or Production Facilities or Employing Alternative Means of Operation That Prevent, Reduce or Mitigate the Impacts of Oil & Gas Operations
- Alternatives Must Be Technologically Sound, Economically Practical and Reasonably Available to the Operator

NEW ACT: H.B. 07-1252

- An Operator May Not be Prevented from Using That Amount of Surface Reasonable and Necessary to Explore for, Develop and Produce Oil & Gas
- SUAs and Other Contractual Provisions and Leases may Address Surface Use
- Failure to Comply by Operator may be alleged as Civil Trespass Remedied by Compensatory Damages or Equitable Relief
- Surface Owner Must Show Operator's Use Materially Interfered with Surface Use

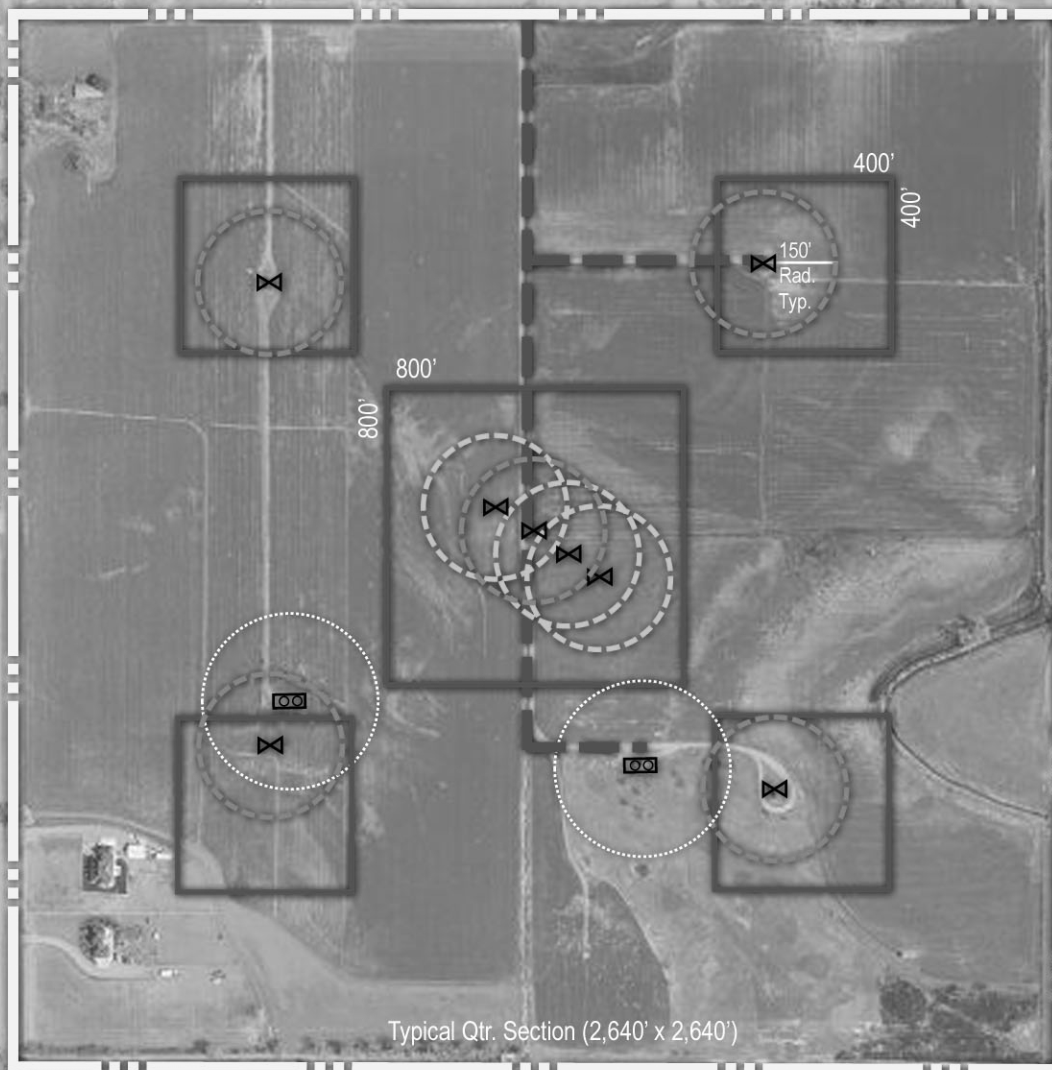
NEW ACT: S.B. 07-237

- Compromise Legislation
- Notice under HB 1088 is Revised
 - Mineral Owners/Lessees must record request for notice specifying legal description of mineral interest
 - Section, Township, Range, Lots & Blocks
 - Examine recorded requests for notice and tax records
 - Notice – certified mail or overnight courier to mineral owners at least 30 days before initial public hearing on application
 - Application for Development
 - Sketch plan, preliminary or final plat, PUD, and land use change creating lot lines
- Encourage Negotiation of SUAs

NEW ACT: S.B. 07-237

- Qualified Surface Developments/160 Acres in GWA
 - Operational Aspects:
 - Developer Aspects: Conditions to land use application approval
 - Notice
 - SUA or statutory defaults on Plat for oil and gas operations

Greater Wattenberg Area **"Five Spot"** - COGCC Setbacks



LEGEND:



JURISDICTIONAL DRILLING WINDOW



150' RADIUS EXCLUSIVE USE AREA



150' - 318A(e) EXCLUSIVE USE AREA



200' RADIUS TANK SETBACK



WELL LOCATION (50' Offset Typ.)



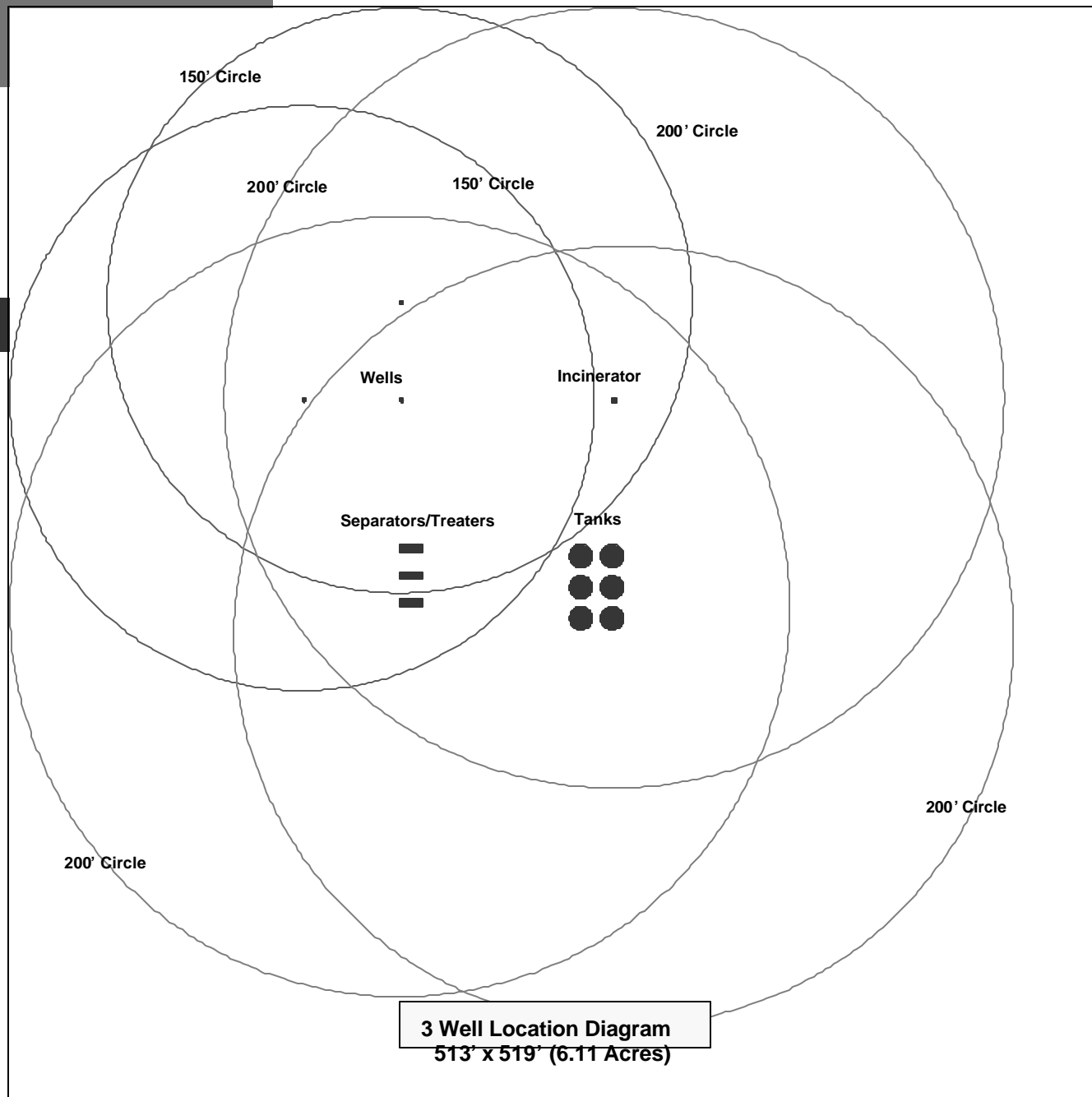
TANK LOCATION (75' from Well Typ.)

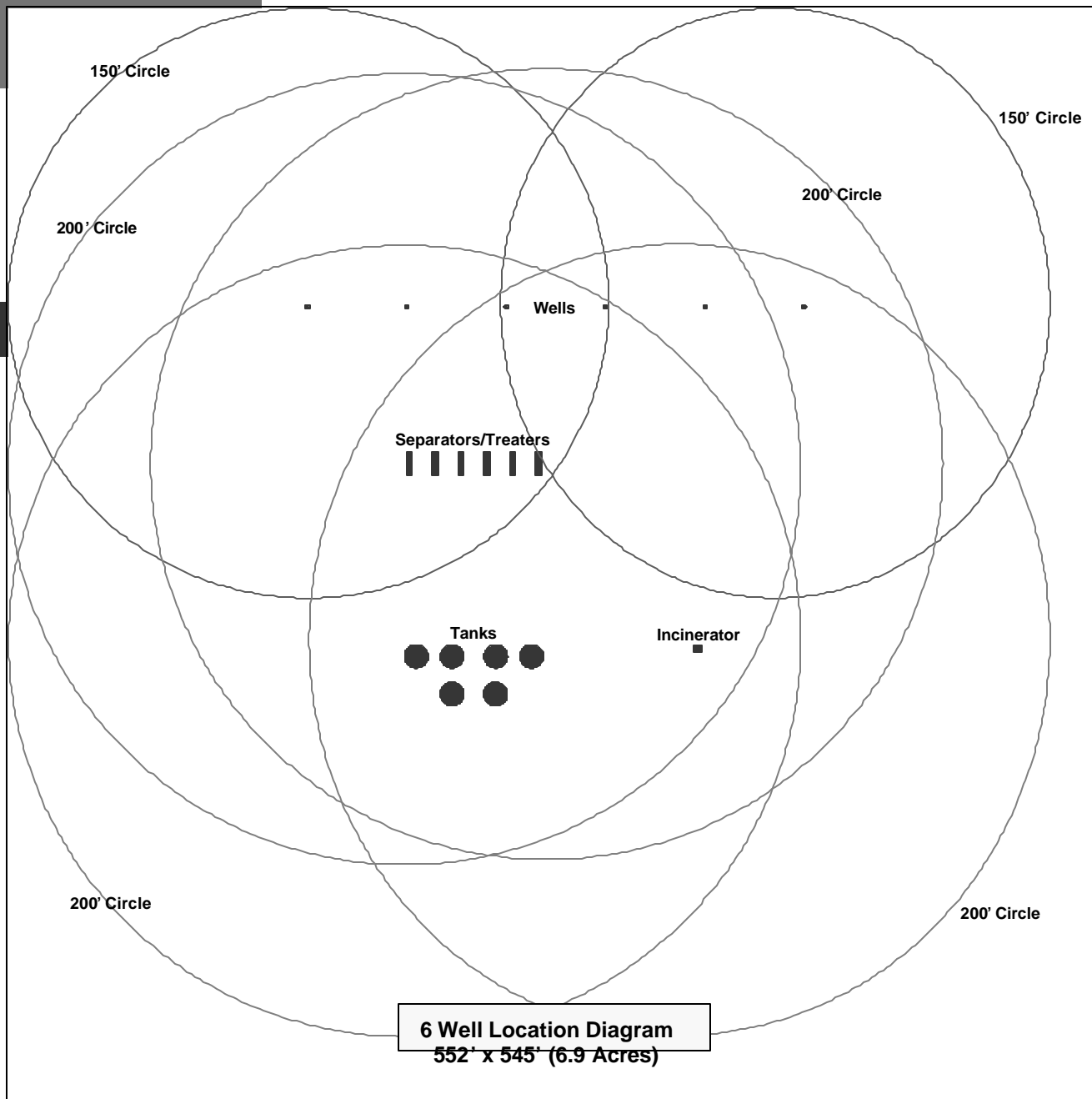


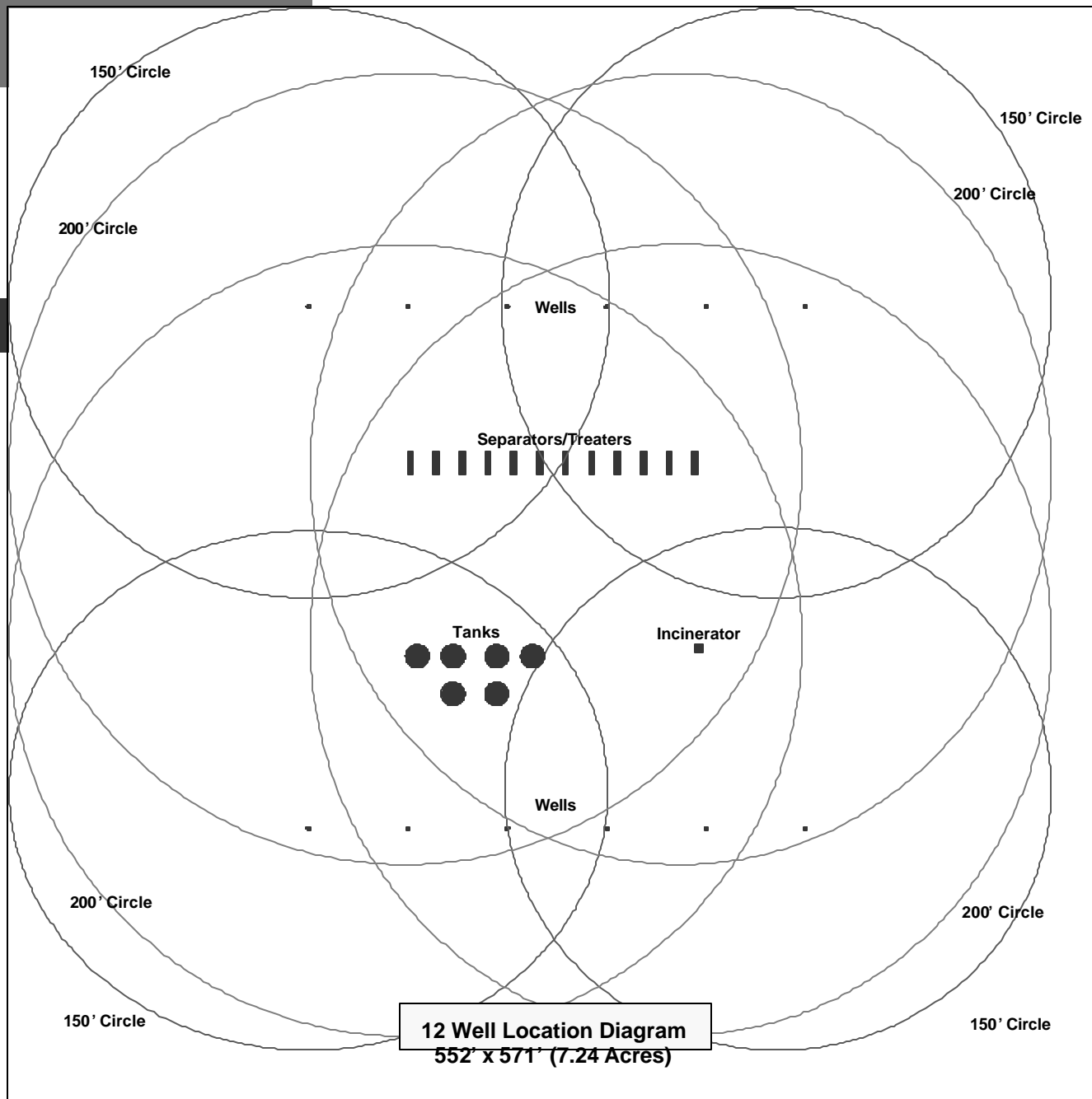
30' FLOWLINE EASEMENT (Typ.)

NEW ACT: S.B. 07-237

- Create Default OGOAs that Reduce the Number of Vertical Drilling Sites and Surface Impacts
 - 1 to 2 Existing Wells: Access and Pipeline/Flowline Easements
 - OGOA: 600' x 600' window and 200' radius around existing wells and tanks
 - Deposit for incremental directional drilling costs - \$87,500 per well, up to 4 wells
 - 50' landscape buffer














“Qualifying” Statutory Default (2 or Fewer Wells) - C.R.S. Sec. 24-65.5-103.5 (1)(a)(II)



NOTE:

The outer 50' of any setback of 200' or more may be used for utilities, roads, etc.

LEGEND:

-  JURISDICTIONAL DRILLING WINDOW
-  200' RADIUS EXCLUSIVE USE AREA
-  200' - 318A(e) EXCLUSIVE USE AREA
-  200' RADIUS TANK SETBACK
-  WELL LOCATION (50' Offset Typ.)
-  TANK LOCATION (75' from Well Typ.)
-  30' FLOWLINE EASEMENT (Typ.)

NEW ACT: S.B. 07-237

- Create Default OGOAs that Reduce the Number of Vertical Drilling Sites and Surface Impacts
 - 3 or More Existing Wells: Access and Pipeline/Flowline Easements
 - OGOA: 250' radius around 1 existing well in each of 3 drilling windows and 200' radius around existing wells and tanks
 - Deposit for incremental directional drilling costs - \$87,500 per well, up to 4 wells
 - 50' landscape buffer








“Qualifying” Statutory Default (3 or More Wells) - C.R.S. Sec. 24-65.5-103.5 (1)(a)(I)



NOTE:

The outer 50' of any setback of 200' or more may be used for utilities, roads, etc.

LEGEND:

-  JURISDICTIONAL DRILLING WINDOW
-  200' or 250' RADIUS EXCLUSIVE USE AREA
-  150' - 318A(e) EXCLUSIVE USE AREA
-  200' RADIUS TANK SETBACK
-  WELL LOCATION (50' Offset Typ.)
-  TANK LOCATION (75' from Well Typ.)
-  30' FLOWLINE EASEMENT (Typ.)

NEW ACT: S.B. 07-237

- Reduce the Number of Potential Directional Wells for which Incremental Costs Reimbursement is Required
- Directional Drilling Escrow Returned to Surface Owner if Not Used by Operator Within Four Years (3 years + permit period)
- Finance Directional Drilling Costs through Metropolitan District








SURFACE USE AGREEMENTS

- Ascertain the operators and all working interest owners – Parties to SUA
 - Developer who applies for a land use change must comply with H.B. 01-1088, as amended

“Example” Oil & Gas Operation Areas in a Surface Use Agreement



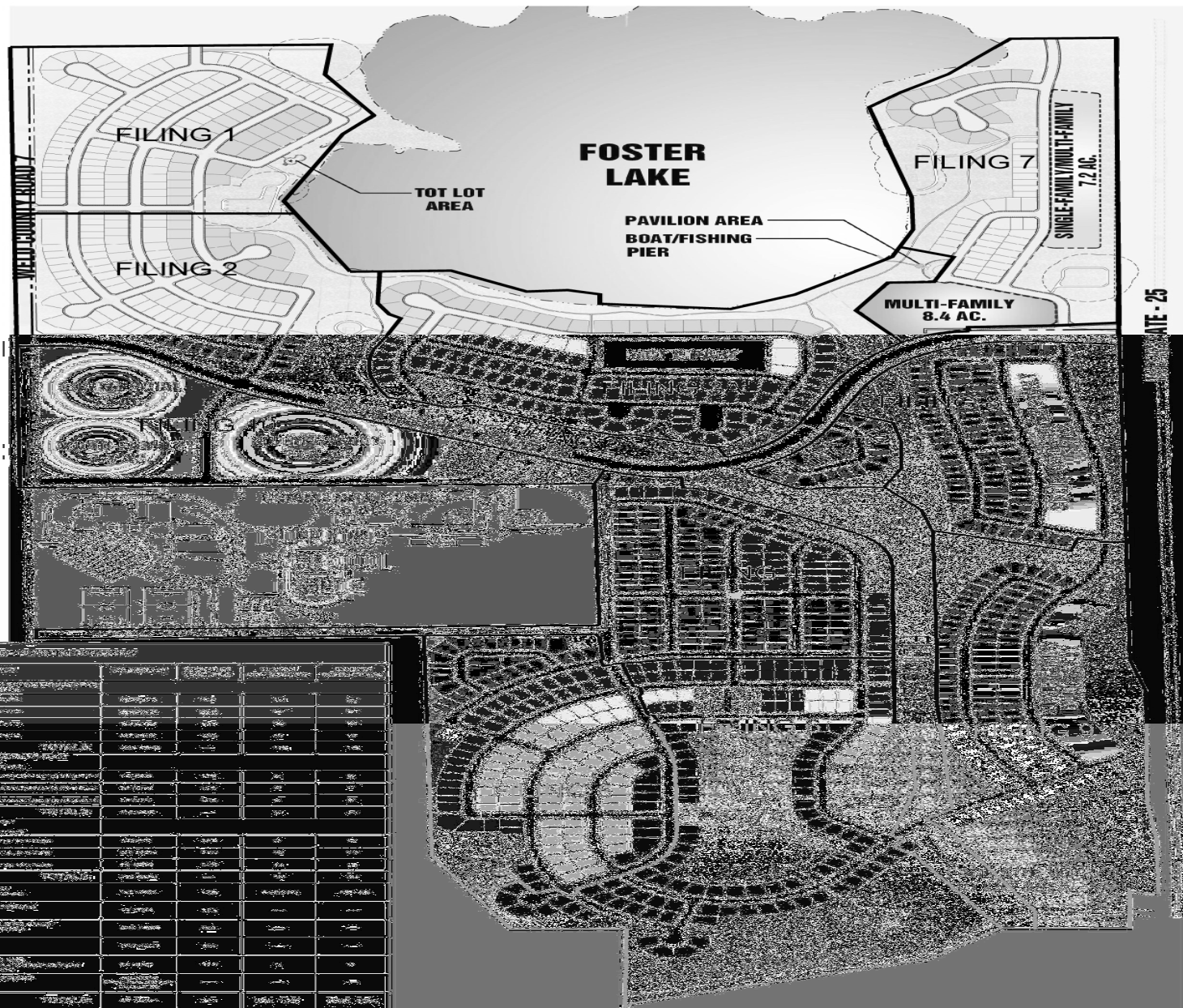
LEGEND:

-  JURISDICTIONAL DRILLING WINDOW
-  200' RADIUS EXCLUSIVE USE AREA
-  200' - 318A(e) EXCLUSIVE USE AREA
-  200' RADIUS TANK SETBACK
-  WELL LOCATION (50' Offset Typ.)
-  TANK LOCATION (75' from Well Typ.)
-  20' FLOWLINE EASEMENT (Typ.)

SURFACE USE AGREEMENTS

- There may be different working interest owners for different formations (Sussex, Shannon, Niobrara, Codell, J-Sand, D-Sand, Dakota, Lyons)
- Access – location and dimensions of access to well site and surface equipment
- Operations areas – exclusive to Operator and specify setbacks; specify number and location of future wells
- Flowlines and pipe lines – specify easements and relocation provisions
- Payment – surface damages, relocation expenses and marginal cost of directional drilling
- Surface Release – The portion of the surface that will not be used by the Operator
- Covenant running with the land, successors and assigns, term and indemnification

WATERFRONT AT FOSTER LAKE



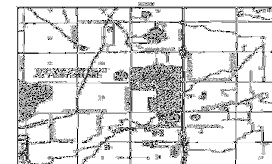
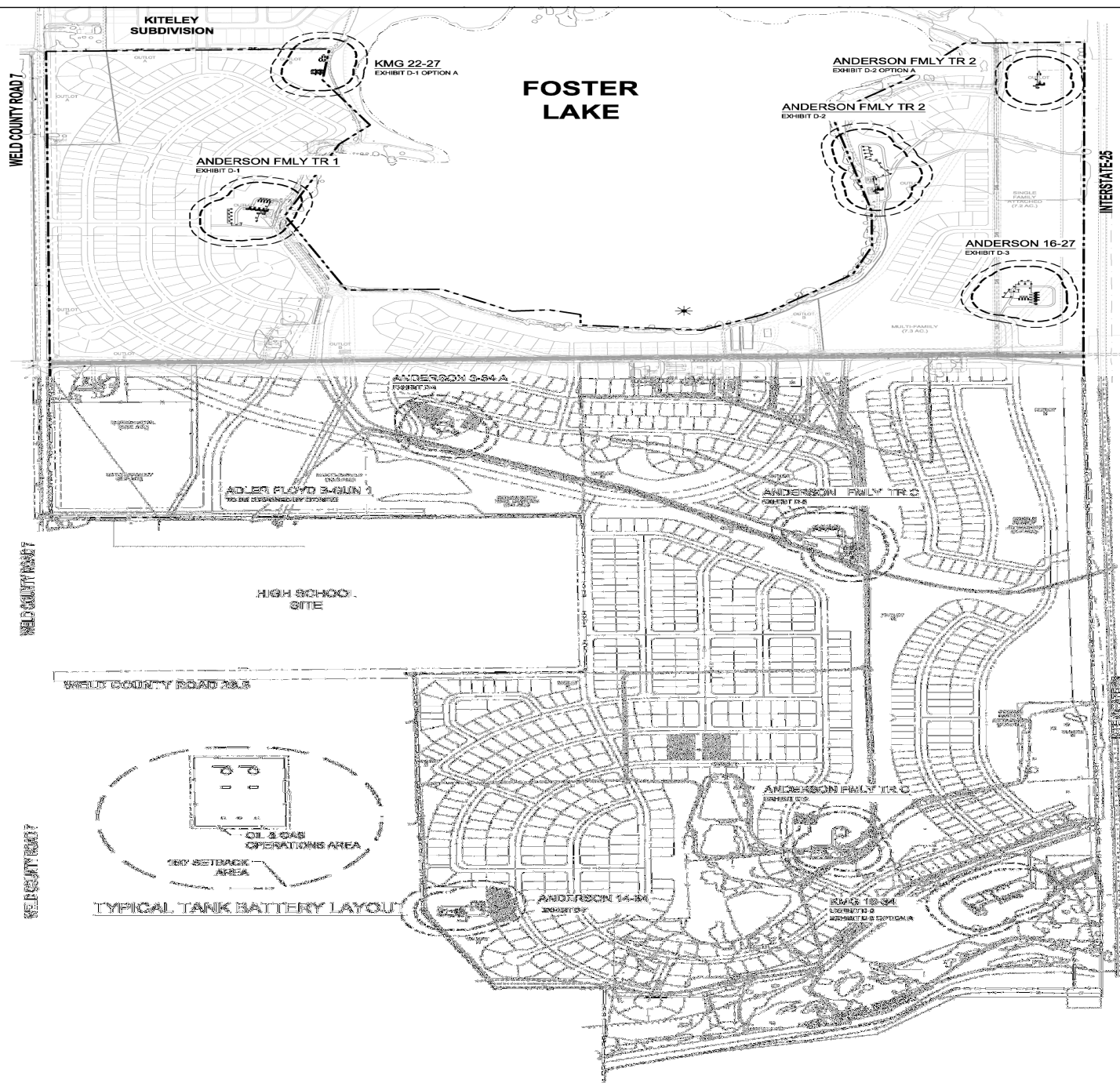
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100-100-050	100-100-050	1.00	100-100-050

FILING MAP

PROPERTY	ANDERSON PARCEL
NOT A PART	



THE TRAVELER



VICINITY MAP
R.C.B.

LEGEND

- EXISTING ROAD OR UTILITY
- PROPOSED ROAD OR UTILITY
- OIL & GAS OPERATIONS AREA
- 16' SETBACK AREA

DRAFT

EXHIBIT D

OIL & GAS OPERATIONS AREAS

WATERFRONT AT FOSTER LAKE



