

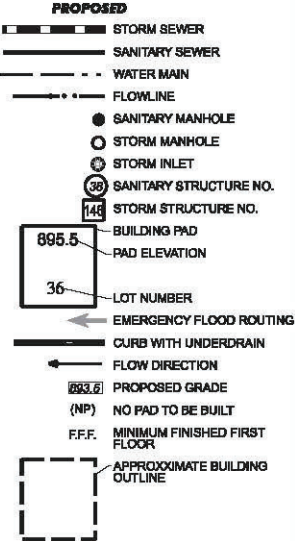
LEGEND

EXISTING

- ST - STORM SEWER
- S - SANITARY SEWER
- W - WATER LINE
- X - FENCE LINE
- OHE - OVERHEAD UTILITIES
- T - TELEPHONE LINE
- SM - STORM MANHOLE
- SI - STORM INLET
- SSN - SANITARY MANHOLES
- U - UTILITY POLES
- TL - TREE LINE

PROPOSED

- SS - STORM SEWER
- SSN - SANITARY SEWER
- WM - WATER MAIN
- FL - FLOWLINE
- SM - STORM MANHOLE
- SI - STORM INLET
- SSN - SANITARY STRUCTURE NO.
- SSN - STORM STRUCTURE NO.
- BP - BUILDING PAD
- PE - PAD ELEVATION
- LN - LOT NUMBER
- EF - EMERGENCY FLOOD ROUTING
- CU - CURB WITH UNDERDRAIN
- FD - FLOW DIRECTION
- PG - PROPOSED GRADE
- NP - NO PAD TO BE BUILT
- FF - MINIMUM FINISHED FIRST FLOOR
- AO - APPROXIMATE BUILDING OUTLINE



STREET NAME CHART

LINE	STREET NAME
A	WEST GLORY MAPLE DRIVE
B	NORTH SPIKE BUSH COURT
C	WEST THORNBERG DRIVE
D	WEST MAY APPLE DRIVE

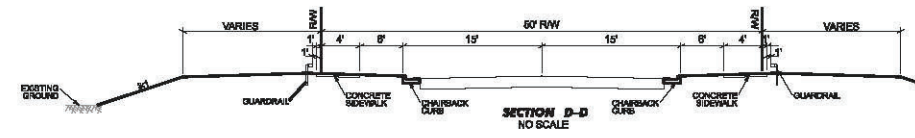
SEE ENTRANCE PLAN FOR DETAILED GRADING OF ENTRANCE

BAY FOREST DRIVE

C.R. 700 West (County Line Rd.)

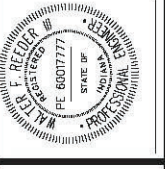
FUTURE SECTION
GEIST WOODS
ESTATES

SEE DITCH DETAIL ON SHEET 28 OF 29.



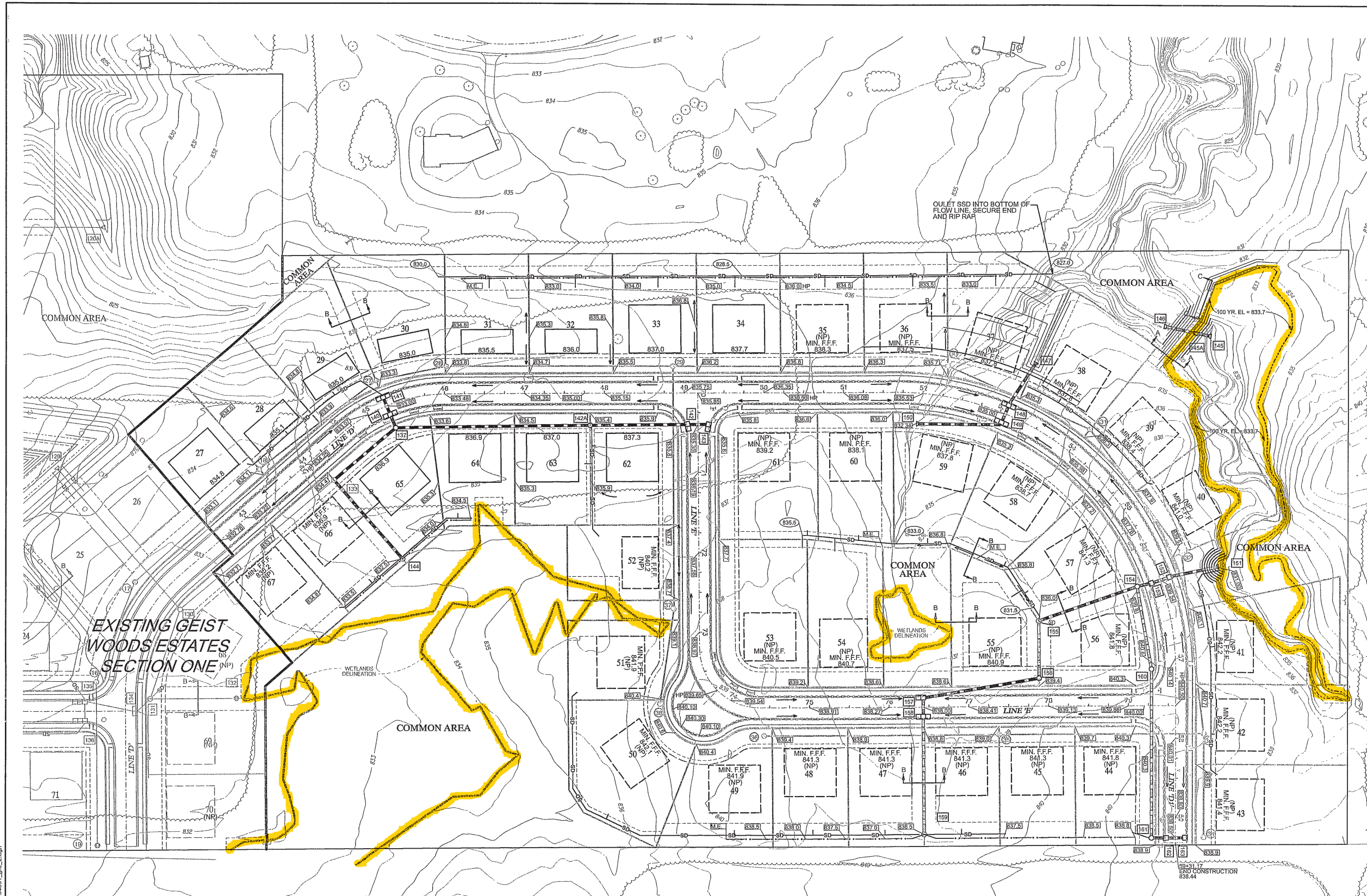
- GENERAL NOTES**
- Standard Specifications
 - The City of McCordsville Specifications shall apply for Storm Sewers.
 - McCordsville Water Utility Standard Specifications shall apply for Watermains.
 - McCordsville Wastewater Utility Standard Specifications shall apply for Sanitary Sewers.
 - Gas, Electric, Phone and Cable TV utility companies shall be contacted prior to construction.
 - It shall be the responsibility of each contractor to verify existing utility locations and conditions. It shall also be the contractor's responsibility to contact the various utilities for proper staking and locations for each prior to construction.
 - Any errors or omissions shall be brought to the attention of the engineer prior to construction. In the event of the contractor's failing to give such notice, they shall be held responsible for the results of any such errors or omissions and the cost of rectifying the same.
 - Any parts of the sanitary or storm sewer branch which lies under paved areas, sidewalks, or within 5 feet thereof shall be back filled with granular material as shown in the details.
 - All grades at the boundary line shall meet existing grade.
 - All construction activity on this site shall be performed in compliance with OSHA standards.
 - Rip-Rap is required on all end sections outfall pipes. See Erosion and Sediment Control Plan for exact size and location.
 - Contractor to stockpile topsoil at a location approved by the developer and engineer prior to construction.
 - Any area of construction where field ties cross the proposed house pad, ties shall be removed and back filled. All field ties intercepted shall be perpetuated into the storm sewer system or talons. The contractor shall notify the engineer in any circumstance where this cannot be accomplished.
 - All fill areas shall be compacted to meet the density of the specification sheet or detail.
 - Decorative stone, sprinkler systems, trees, landscaping mounds, or other such amenities are not permitted in the street right-of-way.
 - A temporary security fence, such as tightly stretched snow fence, shall be installed around any pond or basin containing water during or after construction. The snow fence must be continuously maintained until the pond water elevation reaches the 10 foot safety ledge.
 - All curbs shall have a 6" min. pipe installed beneath all road curbs. The Invert shall be installed at an elevation of 40" min. below the top of curb elevation, and shall have 66 crushed stone backfilled from at least bottom of 4" below the invert of the underdrain to 6" of bottom of the curb. Pipe material per INDIANA DEPARTMENT OF TRANSPORTATION SPECS No. 718.02 AND AASHTO M262.
 - 1' behind the right-of-way there is to be a sidewalk easement to allow access for the sidewalk.
 - MFF was placed on the drawings as a guide. These elevations will need to be established in the field on a lot to lot basis. The plot plan shall be reviewed by the developer and/or engineer to establish final grading and drainage flow for each lot.

**GRADING AND DRAINAGE PLAN
GEIST WOODS ESTATES, SECTION 1
VERNON TOWNSHIP
McCORDSVILLE, INDIANA**



BANNING ENGINEERING
853 COLUMBIA ROAD, SUITE #101
PLAINFIELD, IN 46168
BUS: (317) 707-3700, FAX: (317) 707-3900
E-MAIL: Banning@BanningEngineering.com

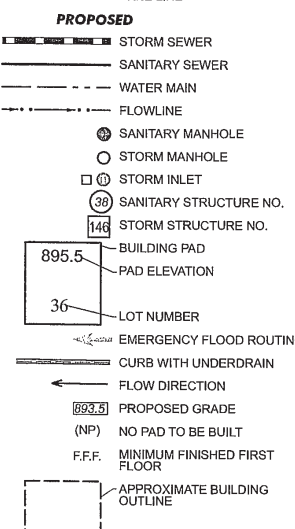
Project No: 04091
Sheet No: 5 of 29



STREET NAME CHART

LINE	STREET NAME
D	WEST MAY APPLE DRIVE
D3	NORTH DOGWOOD DRIVE
E	WEST SILVERTHORNE DRIVE

- LEGEND**
- EXISTING**
- ST STORM SEWER
 - S SANITARY SEWER
 - W WATER LINE
 - X FENCE LINE
 - OE OVERHEAD UTILITIES
 - T TELEPHONE LINE
 - STORM MANHOLE
 - ⊕ STORM INLETS
 - ⊙ SANITARY MANHOLES
 - UTILITY POLES
 - TREE
 - TREE LINE
- PROPOSED**
- ST STORM SEWER
 - S SANITARY SEWER
 - W WATER MAIN
 - F FLOWLINE
 - ⊕ SANITARY MANHOLE
 - STORM MANHOLE
 - ⊙ STORM INLET
 - ⊙ SANITARY STRUCTURE NO.
 - ⊙ STORM STRUCTURE NO.
 - BUILDING PAD
 - PAD ELEVATION
 - LOT NUMBER
 - EMERGENCY FLOOD ROUTING
 - CURB WITH UNDERDRAIN
 - FLOW DIRECTION
 - PROPOSED GRADE
 - NO PAD TO BE BUILT
 - F.F.F. MINIMUM FINISHED FIRST FLOOR
 - APPROXIMATE BUILDING OUTLINE



APPROVED

JUL 25 2007

BY [Signature]

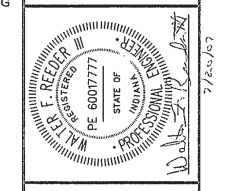
WITSMAN ENGINEERING
TOWN OF MCCORDSVILLE

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- Standard Specifications
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 - Voclo Water Indianapolis Standard Specifications shall apply for Watermains.
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 - Any parts of the sanitary or storm sewer trench which lies under paved areas, sidewalks, or within 5 feet thereof shall be back filled with granular material as shown in the details.
 - All grades at the boundary line shall meet existing grade.
 - All construction activity on this site shall be performed in compliance with OSHA standards.
 - Rip-Rap is required on all end sections outfall pipes. See Erosion and Sediment Control Plan for exact size and location.
 - Contractor to stockpile topsoil at a location approved by the developer and engineer prior to construction.
 - Any area of construction where field tiles cross the proposed house pad, tiles shall be removed and back filled. All field tiles intercepted shall be perpetuated into the storm sewer system or lakes. The contractor shall notify the engineer in any circumstance where this cannot be accomplished.
 - All fill areas shall be compacted to meet the density of the specification sheet or detail.
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 - 1' behind the right-of-way there is to be a sidewalk easement to allow access for the sidewalk.
 - Minimum FFF was placed on the drawings as a guide. These elevations will need to be established in the field on a lot to lot basis. The plot plan shall be reviewed by the developer and/or engineer to establish final grading and drainage flow for each lot.
 - See Final Detail Plan for Drainage Easement sizes and locations.

Revisions	Date
REVISED PER TAC COMMENT LETTER	4/16/07
REVISED APRIL 10, 2007	4/26/07
ADDED SUBSURFACE DRAIN AND	5/7/07
REVISED PER COMMENT LETTER	5/7/07
REVISED PER COMMENT LETTER	6/26/07
REVISED PER COMMENT LETTER	7/16/07

Designed: LGF
 Drawn: SJH
 Checked: [Signature]
 Scale: 1"=60'
 Date: 3-30-07

GRADING AND DRAINAGE PLAN
GEIST WOODS ESTATES, SECTION 2
VERNON TOWNSHIP
MCCORDSVILLE, INDIANA



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Project No: 0409152
 Sheet No: 5 of 22

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