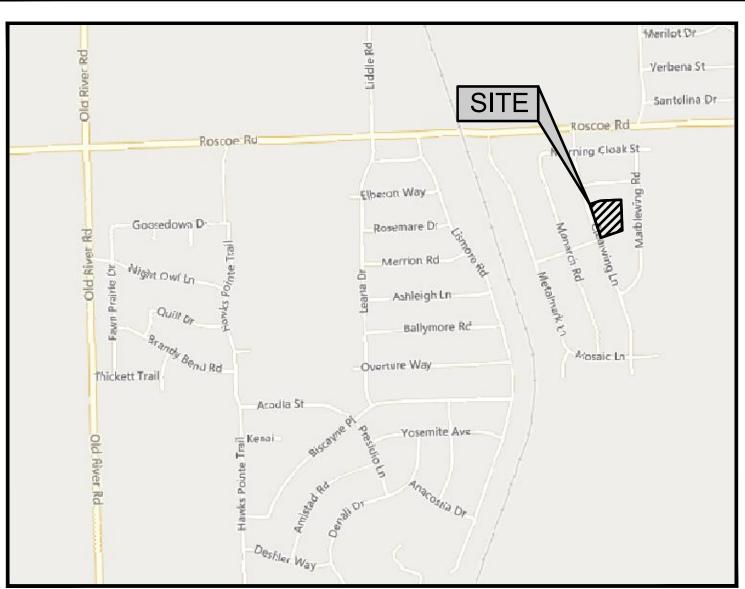
# CLEARWING LOT A PUD

## 10311 CLEARWING LN ROSCOE, IL 61073

#### **GENERAL NOTES**

- The designs represented in these plans are in accordance with established practices of civil engineering for the design functions and uses intended by the owner at this time. Neither the engineer nor its personnel can or do warrant these designs or plans as constructed except in the specific cases where the engineer inspects and controls the physical construction on a contemporary
- The contractor, by agreeing to perform the work, agrees to indemnify and hold harmless the owner, the engineer, the city, and all agents and assigns of those parties, from all suits and claims arising out of the performance of said work, and further agrees to defend or otherwise pay all legal fees arising out of the defense of said parties.
- In accordance with generally accepted construction practices, the contractor shall be solely and completely responsible for conditions of the job site, including safety of all persons and property during performance of the work. This requirement will apply continuously and not be limited to normal working hours. Any construction observation by the engineer of the contractor's performance is not intended to include review of the adequacy of the contractors safety measures, in, or near the construction site. The contractor is responsible for maintaining adequate signs, barricades, fencing, traffic control devices and measures, and all other measures that are necessary to protect the safety of the site at all times.
- Maintain access for vehicular and pedestrian traffic as required for other construction activities. Use traffic control devices to include temporary striping, flagmen, barricades, warning signs, and warning lights shall be in accordance with current MUTCD and IDOT standards.
- All phases of the site work for this project shall meet or exceed industry standards and requirements set forth by the Village of Roscoe, the State of Illinois, and this plan set.
- The Village of Roscoe must be notified at least two (2) working days prior to the commencement or resumption of any work
- The contractor shall coordinate all permit and inspection requirements with responsible local, state, and federal agencies. The contractor shall include the costs of this coordination and all inspection fees in the bid price.
- All work performed by the contractor shall come with a warranty against defects in workmanship and materials. This warranty period shall run concurrent with the required warranty periods the owner must provide to each local government agency, as a
- 9. The contractor will be held solely responsible for and shall take precautions necessary to avoid property damage to adjacent properties during the construction of this project.
- 10. All structures, inlets, pipes, swales, roads and public egresses must be kept clean and free of dirt and debris at all times.
- 11. Any field tiles encountered during construction shall be recorded showing size, location, and depth by the contractor, and either reconnected and rerouted or connected to the storm sewer system. The owner shall be notified immediately upon encountering
- The contractor shall field verify the elevations of the benchmarks prior to commencing work. The contractor shall also field verify the location and elevation of existing pipe inverts, curb or pavement where matching into existing work. The contractor shall field verify horizontal control by referencing property corners to known property lines. Notify the engineer of discrepancies in either vertical or horizontal control prior to proceeding.
- 13. All elevations are on NAVD 88 datum.
- 14. Parking areas designated as A.D.A. and all sidewalk shall be compliant with state and local A.D.A. requirements.
- 15. Tactile warning plates per IDOT specifications shall be placed at all locations where sidewalk that is to be replaced intersects public roads and at locations indicated in this plan set.
- 16. The contractor shall verify the location of all utilities in the field prior to construction. This includes sanitary sewer, water main, storm sewer, General Telephone, Commonwealth Edison, Northern Illinois Gas and cable television, if any. The J.U.L.I.E. number
- 17. Property corners shall be carefully protected until they have been referenced by a Professional Land Surveyor.
- 18. The contractor shall keep careful measurements and records of all construction and shall furnish the Engineer, the Owner and the City with record drawings in a digital format compatible with AutoCAD Release 14 upon completion of his work.
- 19. Any excess dirt or materials shall be placed by the contractor onsite at the owner's direction or as indicated on the plans.
- 20. Notify the owner and Village of Roscoe of any existing wells. Obtain permit form the Illinois Bureau of Minerals and the State Water Survey. Cap and abandon wells in accordance with local, state, and federal regulations.
- 21. Finish grade shall in all areas not specifically reserved for storm water management shall drain freely. No ponding shall occur. Tolerances to be observed will be measured to the nearest 0.04 of a foot for paved surfaces and 0.10 of a foot for unpaved areas.

#### VICINITY MAP



# Call Before You Dig ONE CALL SYSTEM

DIAL 811 OR (800) 892-0123

## OWNER:

WHITE OAK TRUST

747 GLEASMAN ROAD ROSCOE, IL 61073

## **ENGINEER:**



LICENSED

PROFESSIONAL

ENGINEER

#### **Sheet List Table**

Sheet Number	Sheet Title
C00	COVER SHEET
C01	GENERAL NOTES
C02	GENERAL NOTES, TYPICAL SECTION & SUMMARY OF QUANTITIES
C03	SWPPP SITE MAP
C04	SWPPP DETAILS
C05	EXISTING CONDITIONS & REMOVALS PLAN
C06	LAYOUT PLAN
C07	GRADING PLAN
C08	PRIVATE DRIVE PLAN & PROFILE STA. 100+00 TO 103+00
C09	PRIVATE DRIVE PLAN & PROFILE STA. 103+00 TO 105+33
C10	FRSA STANDARD DETAILS
C11	DETAILS
C12	DETAILS
C13	DETAILS
L01	LANDSCAPE PLAN OVERVIEW
L02	LANDSCAPE DETAILS

## **UTILITY OFFICIALS**

PUBLIC WORKS DEPARTMENT: VILLAGE OF ROSCOE 5402 SWANSON ROAD ROSCOE, IL 61073 WADE KRETSINGER SUPERVISOR (815) 877-0746

**SEWER DISTRICT:** FOUR RIVERS SANITATION AUTHORITY 3501 KISHWAUKEE STREET ROCKFORD, IL 61109 CHRISTOPHER T. BAER, P.E.

DIRECTOR OF ENGINEERING

TELEPHONE: AT&T MIDWEST 2404 8TH AVENUE ROCKFORD, IL 61108 HECTOR GARCIA (630) 639-8372

(815) 387-7660

**ELECTRIC**: COM ED 123 ENERGY DRIVE ROCKFORD, IL 61109 (815) 490-2335

### WATER DEPARTMENT:

NORTH PARK PUBLIC WATER DEPARTMENT 1350 TURRET DRIVE MACHESNEY PARK, IL 61115 (815) 633-5461

CABLE TELEVISION: COMCAST

4450 KISHWAUKEE STREET ROCKFORD, IL 61101 THOMAS YUCCAS (815) 395-8977

GAS: NICOR GAS 1844 FERRY ROAD NAPERVILLE, IL 60563 (708) 878-1242

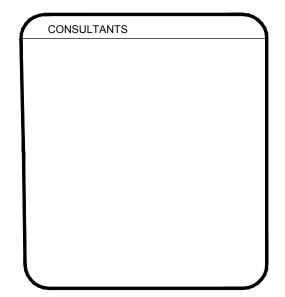


CLEARWING LOT A PUD

OWNER'S NAME

10311 CLEARWING LN ROSCOE, IL 61073 WINNEBAGO COUNTY

WHITE OAK TRUST 747 GLEASMAN ROAD ROSCOE, IL 61073



ISSUED FOR

		DATE
	1. OWNER REVIEW	11-14-2024
	2. AGENCY APPROVAL	01-14-2025
	3	
	4. —	
	5	
	6. —	
	7. —	
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	REVISIONS	
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SHEET TITLE **COVER SHEET** 

DRAWN		MJH
CHECK	ED	JSL
PM		JSL

#### GENERAL NOTES AND CONDITIONS

- 1. All earthwork, grading and paving shall be performed in accordance with Standard Specifications for Road and Bridge Construction in Illinois, State of Illinois Department of Transportation, (current edition), the "Supplemental Specifications and Recurring Special Provision" (current edition), and all revisions and supplements thereto, and the requirements and specifications of Village of Roscoe (where applicable). Notify the following at least 48 hours prior to start of construction
- Village of Roscoe Dept. of Public Works (815) 654-5040 Arc Design Resources, Inc. - (815) 484-4300

11. See cross sections for special slopes, including driveway slopes.

- The Contractor shall be responsible for protecting utility property during construction operations as outlined in Article 107.31 of the Standard Specifications. The J.U.L.I.E. number is 800-892-0123. A minimum of 48 hours advance notice is required for non-emergency work 4. The Contractor shall contact the Village of Roscoe Department of Public Works Water Division for all water main shutoffs required due to
- construction operations. The Contractor shall not operate any valves or shutoffs without prior notification. The Contractor shall provide and install two weighted sand bags on the bottom cross member of each type I barricade used.
- If during paving or grading operations the existing mailboxes or street signs, which are to remain in place, become a hindrance, the Contractor shall be required to carefully remove and reinstall them and shall be included in the cost of the paving or grading pay items.
- The top four inches of soil in any right of way area disturbed by the Contractor must be capable of supporting vegetation. Cut or fill slopes shall have a maximum ratio of 3 horizontal to one vertical unless noted otherwise. These slope constraints apply to temporary
- stock piles as well as finished slope conditions.
- The Contractor is responsible for maintaining positive drainage at the conclusion of each working day 10. Depressed curb shall be provided for handicapped ramps at all sidewalks abutting the curb and gutter and for future sidewalk locations. Follow
- IDOT ADA Standards.
- . Embankment will not be measured for payment and shall be included in the Earth Excavation cost. 13. Except for the top 3", all aggregate bases and subbases 12" in thickness shall be constructed of aggregate gradation CA-2. If the specified thickness exceeds 12", the bases or subbases shall be constructed of topsize 6" breaker-run crushed stone with 70% to 90% by weight, passing the 4" sieve and 15% to 40% by weight, passing the 2" size sieve, except the top 3". The breaker-run crushed stone shall be reasonably uniformly graded from coarse to fine and be taken from a quarry ledge capable of producing Class "D" quality aggregate. The top 3" shall be gradation CA-6 or CA-10 regardless of thickness. The water necessary to achieve compaction in all but the top 3" layer may be added after the subbase or
- base course is placed on the grade 14. A contingency quantity has been included in the plans for Removal & Disposal of Unsuitable Material as well as Rock Fill and shall be used as needed. Quantities will be measured in the field.
- 15. Tie bars shall be installed to tie PCC appurtenance to adjacent existing concrete pavement. Tie bars to be installed in accordance with the applicable portions of Article 420.05 of the Standard Specifications. See Highway Standard 420001-08 for detail on longitudinal construction joint grouted-in-place tie bar. The cost of the tie bars to be included in the cost of the PCC appurtenance adjacent to the existing pavement. See cross sections for special ditches and back slopes
- 17. The removal of bituminous surfacing on a rigid type base removed in conjunction with the base shall be included in the contract unit price for pavement removal of the type specified.
- 18. Placement and compaction of the backfill for proposed across road culverts and existing across road culverts that are removed shall conform to Section 502.10 of the standard specifications, except that the material shall conform to Article 208.02 of the standard specifications, and shall be compacted to a minimum, of 95% of the stand laboratory density. Any material conforming to the requirement of Article 1003 04 or 1004 05 which has been excavated from the trenches shall be used for backfilling the trenches. The entire excavation, within 2 feet outside of each curb or pavement shall be backfilled with trench backfill material to the bottom of the proposed subgrade.
- All embankment constructed of cohesive soil shall be constructed with not more than 110% of optimum moisture content, determined by the standard proctor test. Cohesive soil shall be defined as any soil which contains greater than 10% particles by weight passing the #200 sieve. The
- 110% of optimum moisture limit may be waived in free-draining granular material when approved by the engineer 20. The contractor shall place temporary hot-mix asphalt tapers along all sides of the utility structures protruding above the final surface. The temporary tapers shall extend 2" outside of the castings, except for the approach side to traffic shall have a 4' taper length. Hot -mix asphalt meeting the approval of the engineer shall be used. No cold millings will be allowed.. The cost of the material, placement, maintenance, remove, and disposal of said work will be incidental to the project.
- 21. The temporary sheet piling necessary for the placement of storm sewer, sanitary sewer, and watermain shall be included in the cost of the item
- being installed. 22. Culvert flows must be maintained throughout the project. Normal flow shall be allowed to pass at the rate it enters the jobsite. High flows shall be allowed to pass without causing damage to upstream properties.
- 23. All frames and grates of drainage structures to be removed or filled shall be carefully salvaged and shall remain the property of the contractor. 24. The new manhole lids on this project shall have the word "STORM", "SANITARY", or "WATER" on the lid. The word to be used is noted on the plans. It will be the contractor's responsibility to determine the word to be used on other lids not noted on the plans. No additional compensation will be allowed for this work.
- 25. All proposed manholes on this project shall be cast in place or precast. This work will be paid for at the contract unit price each for manhole of the type and size specified 26. The contractor shall determine flow lines of existing sewer lines which are shown on the plans as estimated or unknown. This information is
- necessary before ordering inlets and manholes. 27. Pavement marking shall be done according to standard 780001, expect as follows: 27.A. All words, such as "ONLY", shall be 8 feet high.
- 27.B. All non-freeway arrows shall be large size text. 28. Expect as noted on the plans, pavement grades shown are at the top of pavement surfaces.
- 29. For stabilization, all type III barricades shall require a minimum of four sand bags per barricade. 30. The work required to connect any sewer to an existing drainage structure or pipe will not be paid for separately, but shall be considered as
- included in the contract unit price bid for the sewer item 1. Seeding shall not be permitted at any time when the ground is frozen, wet, or in an untillable condition. Locations to be seeded will be determined
- by the engineer. 32. Only those trees designated by the engineer or listed in the tree removal schedule shall be removed. The contractor shall protect all remaining trees from damage due to his operations.
- 33. Abandoned underground utilities that conflict with construction shall be disposed of outside the limits of the right-of-way according to Article 202.03 of the standard specifications and as directed by the engineer. This work will not be paid for separately, but shall be included in the cost of earth
- 34. Any reference to a standard in these plans shall be interpreted to mean the most current edition. 35. The following rates of application have been used in calculating plan quantities:

Granular Materials	2.05	TONS / CU YD
Bituminous Materials Tack Coat	0.03	LBS / SQ FT
Aggregate Prime Coat	0.25	LBS / SQ FT
HMA Paving	112	LBS / SQ YD / IN
Short Term Pavement Marking	10	FT / 100 FT OF APPLICATION
Mix for Cracks, JTS, & FLGWYS	0.0003	TONS / SQ YD
Level Binder (Hand Method)	0.0005	TONS / SQ YD
Supplemental Watering	3	GAL / SQ YD/ APPLICATION
Calcium Chloride	2	LB / SQ YD/ APPLICATION

- 36. Any existing field tiles crossing under the roadway, as shown in the plans or discovered during exploration trenching, shall be replaced according
- to Section 611 of the standard specifications and paid for under the various pat items for storm sewer work. 37. All sanitary sewer work (including manhole adjustment, sewer crossing, etc.) shall be constructed in the presence of a FRSA Inspector. The
- Contractor shall coordinate this work with District Survey and Field Operations Mgr. Ben Christiansen, cell 815-209-7952 38. All sanitary sewer work shall conform to all standards and specifications of the Four Rivers Sanitation Authority.

#### GENERAL WATER UTILITY NOTES

- All watermains shall be constructed in accordance with the "Standard Specifications for Water and Sewer Main construction in Illinois", current addition, as well as the North Park Public Water District's Standard Watermain Specifications current addition, on file with the Illinois EPA
- Division of Public Water Supplies. All watermain shall be Ductile Iron pipe conforming to AWWA Standard C151 & C111 and be constructed of Class 52 Ductile Iron pipe for all sizes Refer to section 2.01 of North Park Public Water District "Standard Specifications of Water Main Construction" for additional watermain
- The minimum cover for all watermain, hydrant lead piping, and water service pipe is 7 feet 0 inches (7'-0") from finished grade to top of pipe.

material info and requirements

- All watermains under and within two feet of any existing or proposed street glands, bolts pavement or curb shall be backfilled with granular backfill material. Trench AWWA Standard C111. and backfill shall be placed in lifts not to exceed 12 inches compacted to 95% of maximum standard proctor density.
- All gate valves shall be reduced wall, resilient-seated gate valve, meeting all specifications of AWWA C515. All gate valves shall be approved equal to those named. Both valve ends shall be mechanical-joint, underground, or flanged which will meet requirements in AWWA C110. Accessories (bolts, glands, and gaskets) shall be supplied by the valve manufacturer. Refer to Section 2.03.1 of North Park Public Water District "Standard
- Specifications of Water Main Construction' Refer to section 2.09.3 of North Park Public Water District "Standard Specifications of Water Main Construction" for pressure testing
- Refer to section 2.09.3 of North Park Public Water District "Standard Specifications of Water Main Construction" for leakage testing
- After the pressure test has been accepted, the contractor shall chlorinate the watermains in accordance with the requirements of AWWA, the Illinois EPA, and the North Park Public Water District. HTH tablets shall not be
- glued to PVC watermain. Watermains and services shall be separated from or protected from sanitary and storm sewers in accordance with Section 41-2.01 of the "Standard Specifications for Water and Sewer Construction in Illinois",
- current edition. 10. Water service materials shall consist of copper pipe, or minimum PC160 polyethylene, brass corporation and curb stops, with curb boxes. Refer to 15. section 3.01 of North Park Public Water District "Standard Specifications of
- Water Main Construction" for complete water service line material specifications. a fire hydrant. Trees, bushes, walls, or other obstacles which may hide or
- 11. No object may be constructed, maintained, or installed within 48 inches of 16. impede the use of a fire hydrant will not be permitted. 12. Fire hydrants shall comply with standards specified in AWWA C502 for Dry

Barrel Fire Hydrants and section 2.04 of North Park Public Water District

- "Standard Specifications of Water Main Construction". Only the following manufacturers and models are accepted by the District: a. Kennedy Guardian K-81A b. Mueller Super Centurion A-421
- No fire hydrants shall be located in cul-de-sac islands. Hydrants shall be painted in conformity to AWWA Std. C502, Traffic Yellow. The inlet connection shall be six (6) inch oversized mechanical joint through twelve (12) inch, and Class 51 Ductile Iron pipe for all sizes larger. type, which is designed to be installed on Class D Pit Cast or Class 250 Cast Iron pipe and Class 52 Ductile Iron pipe by using two (2) types of available gaskets furnished with the hydrant. Gaskets for oversized cast iron and ductile iron are to be color coded to identify which gasket is to be used on which pipe. The interior shoe and lower valve plate shall be coated with an epoxy at a minimum of four (4) mils thickness. Ductile iron restrained retainer (COR-Blue), nuts, and gaskets, shall conform to
  - Hydrant installation: Hydrants shall be installed in strict accordance with AWWA C600 and recommendations of the manufacturer. All hydrants shall stand plumb and shall have their nozzles parallel with or at right angles to the curb, with pumper nozzle facing the curb. Hydrants shall be set to the established grade, and have a minimum bury depth of 7 feet 0 inches, with the center of the pumper nozzle being 18 to 24 inches above grade. Precautions must be taken to provide adequate drainage of hydrants where natural soils will not provide drainage. Hydrant drains shall not be connected to or located within 10 feet of sanitary sewers or storm drains. Hydrants will be spaced as directed by the District. In general, hydrant spacing will be based upon the area being served and as recommended by the State
  - Insurance Services Office Record drawings along with a digital copy in AutoCAD format, are required by the North Park Public Water District. The contractor shall record measurements from property pins to the centers of the valve lids and curb boxes. Each measurement shall be parallel or perpendicular to the property line. GIS shapefiles and with GPS points provided during construction, not during design, shall be provided along with asbuilts. Refer to section 1.03 of North Park Public Water District "Standard Specifications of Water Main Construction" for digital submittal standards.
  - All bends of eleven and one fourth (11 1/4) degrees or greater, and all tees and plugs shall be thrust protected to prevent movements of lines under pressure as per NPPWD detail and specifications The contractor shall contact the NPPWD at least 48 hours prior to

beginning work on the water main and/or service installations and should

make the site available for inspection by the NPPWD at regular intervals

during construction.

Per sections 2.08.12 and 3.02.2 of North Park Public Water District "Standard Specifications of Water Main Construction", tracer wire is required for PVC and HDPE water main pipe and service pipe. Ductile iron pipe is required for all new water main construction.. Cost of wire is incidental to construction.

### NORTH PARK PUBLIC WATER DISTRICT STANDARD SPECIFICATION WATERMAIN CONSTRUCTION

#### Revised May 2024

The work to be done under these specifications includes the furnishing of all labor, materials, and equipment necessary for the proper installation of the piping, all plumbing work and watermains. All workmanship and materials shall conform to requirements of the state and local agencies

Replace all sections of sidewalk, street paving, or surfacing or other improvements damaged during construction as a result of the contractor's operations. All unpaved areas shall be re-seeded. Contractor shall be responsible for the adequacy of all sheeting. bracing and the support of all adjacent buildings, including any underpinning of buildings which may be necessary, as approved by the District. When blacktop surfacing is removed it shall be replaced and the gravel or crushed stone base shall be replaced so that such replacement shall consist of sufficient material meeting the specifications of the I.D.O.T. for Gravel and Crushed Stone Base Course, or other requirements of the local government having jurisdiction.

WATERMAINS 1.1. Horizontal and Vertical Separations

(a) Whenever possible, a watermain should be laid at least 10 feet horizontally from existing or proposed drain or sewer lines. (b) Should local conditions prevail which would prevent a lateral separation of 10 feet, a watermain may be laid closer than 10 feet to, or in the same trench as, a storm or sanitary sewer, provided the main is laid in a separate trench or on an undisturbed earth shelf located to one side of the sewer and at such an

elevation that the bottom of the watermain is at least 18 inches above the top

(c) If it is impossible to obtain proper horizontal and vertical separation as stipulated in (a) or (b), both the watermain and the sewer should be constructed of approved material and be pressure tested to assure water-tightness before backfilling. (d) All work shall be governed by the latest editions of the Illinois Plumbing Code published by the Illinois Department of Public Health, and the Standard 1.4.H

Specifications for Water and Sewer Main Construction in Illinois. 1.2. Water Service Line The horizontal and vertical separation between water service lines and all sanitary sewers, storm sewers, or any drain, should be the same as for watermains, as detailed in Section 1.1. When minimum horizontal and vertical separation cannot

be maintained installation must meet the same requirements in Section 1.1 (c) All manufacturer's recommended or required safety precautions and equipment shall be used when tapping water mains. 1.3. Installation of Watermains All pipes, fittings and specials shall be carefully examined by the Contractor for

defects, and none shall be placed when known to be defective. If any defective material is discovered after being installed, it shall be removed and replaced with sound material without extra charge. Care shall be taken to prevent the exterior tar coating on ductile iron or the interior mortar coating from being injured. On the inside of pipes, special care shall be exercised to avoid leaving bits of wood, dirt and other foreign particles in the pipe. All piping when laid shall conform accurately to lines and grades established by the

Contractor and shall be laid to prevent trapping air. All watermain installed underground shall be lowered into trench using approved mechanical or other method insuring that no pipe is dropped into a trench. All mains and branches shall be laid upon solid earth, and laying of mains upon loose or newly filled earth will not be permitted. Blocking to prevent movement of lines under pressure at bends, tees, caps, valves and hydrants shall be poured in-place Portland Cement Concrete, a minimum of twelve (12) inches thick, placed between solid ground and the fittings, and shall be anchored in such a manner that pipe and fitting joints will be accessible for repairs.

All bends and all tees and plugs shall be thrust protected to prevent movement of the lines under pressure as necessary to install thrust blocking at deflected sections as well as at fittings. Where unstable soil or backfill conditions exist, it may be necessary to install thrust blocking at deflected sections as well as at fittings. If required by the District, deflection blocking shall be installed at a point approximately one-fifth (1/5) of the pipe length each side of the coupling. Couplings shall not be blocked (See AWWA Manual 17).

Where conditions prevent the use of concrete thrust blocks, tied joints or restrained joints of a type approved by the District shall be used. Piping installed above ground outside of structures and installed inside of the building shall be supported by means of concrete pipes, brackets, floor stands, or hangers, which shall support the piping and appurtenances in a firm and substantial manner approved by the District

- 1.3.A. Jointing Mechanical Joint Pipe: The outside of the spigot and inside of the bell of the mechanical joint pipe shall be thoroughly cleaned to remove all foreign matter from the joint. The gland shall then be slipped on to the spigot end of the pipe with the lip extension of the gland toward the socket or bell end. The rubber gasket shall be place on the spigot end with the thick edge toward the gland. The pipe shall be pushed forward to completely seat the spigot end in the bell. The gasket shall then be pressed into place within the bell, being careful to have the gasket evenly located around the entire joint. The gland shall then be moved along the pipe into position
- Nuts spaced 180 degrees shall be tightened alternately to AWWA C-600 Standards in order to produce an equal pressure on all parts of the gland 1.3.B. Joint Rubber Gasket Joint Pipe (AWWA C111/A21.11): The inside of the bell shall be thoroughly cleaned to remove all foreign matter from the joints. The circular 2. rubber gasket shall be inserted in the gasket seat provided.
- supplied by the pipe manufacturer and approved by the District. then be completed by forcing the plain end into the seat of the bell. Pipe which is not use full AWWA C504 Class 150B valve shaft diameters, and full Class 150B spigot end is inserted to the full depth of the joint. Field-cut pipe lengths shall be beveled to avoid damage to the gasket and mechanical joint sleeves to accommodate valve replacement or removal without cutting
- facilitate making the joint 1.3.C. Laying of Pipe on Curves: Where field conditions require long radius curves not specifically detailed by the plans, the District will determine the methods to be used. No additional payment will be made for laying pipe on curves as shown on the plans, nor for field changes involving standard lengths of pipe deflected at the joints. When special fittings not shown on the plans are required to meet field conditions, additional payment will be made for special fittings as agreed upon with the District in advance of installation. Maximum deflections at pipe joints and laying radius for the various pipe lengths are as found in the following standards:

Ductile-Iron Pipe: Bell and Spigot Joints only required for AWWA C600 Special Conditions Ductile-Iron Pipe Mechanical Joints AWWA C600 Molecularly Oriented Polyvinyl chloride (PVCO) 4" - 24" AWWA C909 Concrete Pressure Pipe AWWA C30.

- AWWA C301 AWWA C302 AWWA C303 AWWA C304 When rubber-gasket pipe is laid on a curve, the pipe shall be jointed in a straight alignment and then deflected to the curved alignment. Trenches shall be made wider on curves for this purpose. All watermain and water pipe shall be installed to a depth to provide not less than 7'-0": of earth covering from finished grade to top of pipe, except that any house service installed under any roadway shall have a 7' cover. Absolutely NO cinders may be included in the backfill within three (3) feet of water pipe, and at least twelve (12) inches of clean earth or sand shall surround it. This also applies to the bedding of pipe if rock excavation is encountered. A bed of 4 to 6 inches thickness of pit run sand or gravel is required between rock and
- 1.4. Watermain Material 1.4.A. Ductile-Iron Pipe: Ductile-iron pipe shall be manufactured in accordance with AWWA C151/A21.51, and meet wall thickness requirements of AWWA C150/A21.50. Pipe shall be centrifugally cast in metal molds and shall be lined in accordance with AWWA C104/A21.4. Joints shall be of an approved type. (Thickness Class 52)
- 1.4.B Polyvinyl Chloride (PVC) Pipe: Molecularly Oriented Polyvinyl chloride (PVCO) pipe shall conform to accepted standards referenced in AWWA C909. In any case of conflict, the requirements of AWWA C909 shall prevail for pipe sized 4 inches through 24 inches. . Minimum acceptable pipe in sizes 4 inches through 12 inches is one having a Dimension Ratio of 18 (DR-18) for PVC 1120 pipe with equivalent OD's for a working pressure of 150 pounds. PVCO pipe shall be guaranteed for 5 years by the manufacturer and an acceptable written guarantee signed by an officer of the company shall be furnished to the District, upon request, before any pipe is delivered to the job site. Joints shall be of the elastomeric-gasket type unless otherwise specified. All pipe
- Direct service tapping of polyvinyl chloride (PVC) pipe will not be permitted. All service taps will include a service saddle of an approved type. 1.4.C. Concrete Pressure Pipe: Concrete pressure pipe shall conform to acceptable standards referenced in one or more of the following AWWA standards: AWWA C300; C301; C302; C303; C304; or additional recommendations of the manufacturer. Joints shall be of an approved type and be in accordance with the appropriate AWWA standard. Specials and service taps will be of a type approved by the

fittings shall be in accordance with the appropriate AWWA standard.

District before delivery to the job site.

least 6" larger than the size of the watermain.

1.4.D Transmission Pipelines: Transmission pipelines shall be Ductile Iron as specified in Section 1.4.A. of this specification document. 1.4.E. Casing Pipelines: When casing pipelines are being installed via a "bored and jacked" method, the casing pipe shall be steel and have a diameter of at least 6" larger than the size of the watermain. When casing pipes are installed via a "direct bury" method,

the carrier pipe can be made of C905, SDR25 or steel and have a diameter of at

- 1.4.F.1 Watermain being installed within a casing pipe must have a restrained joint. An example of restrained joint is Certain Teed C900/905 RJ & RJIB Restrained Joint
- latest edition of all appropriate regulations, recommendations or requirements of all federal, 1.4.F.2 For all casing pipelines, a rubber boot with stainless steel bands is required on each end of the casing. NO brick and mortar end caps will be permitted. In addition, casing spacers (Cascade - All Stainless Steel or equivalent) shall be installed in accordance with the District Engineer or Manufacturers specifications. Should a discrepancy occur, the District Engineer shall take precedent. 1.4.G. Testing Watermain and Piping
  - The distribution pipelines shall be tested as described in AWWA C600 Sec. 4 (Ductile-Iron) or AWWA C909, Section 4 (Molecularly Oriented Polyvinyl chloride (PVCO) pipe, by filling with water and subjecting to a pressure of not less than 1.25 times the working pressure at the highest point along the test section and not less than 1.5 times the working pressure at the lowest point along the test section. Test pressure shall not exceed pipe or thrust-restraint design pressures. Test pressure shall not exceed the rated pressure of the valves when the pressure boundary of the test section includes closed, resilient-seated gate valves or butterfly valves. All damaged or defective pipe, fittings, valves, hydrants, or leaking joints discovered following the pressure test shall be repaired or replaced and the test shall be repeated until it is satisfactory. The Contractor shall provide the necessary pump connections and pay for all costs of making the test. Pressure shall be maintained on the line for a period specified in AWWA C600 &
  - C909, Sec. 4, and the allowable leakage calculated rate not to exceed that recommended. Acceptance shall be determined on the basis of allowable leakage. 2.5 If any test of laid pipe discloses leakage greater than that specified, the Contractor shall, at his own expense, locate and make approved repairs as necessary until the leakage is within the specified allowance. All visible leaks are to be repaired, regardless of the amount of leakage.
  - H. Procedure for Disinfecting Watermains Disinfecting newly constructed potable-water mains shall be done in accordance with recommendations in AWWA C651. The interior of all pipe, fittings and other accessories, shall be kept as free as possible from dirt and foreign matter at all times. On the date the pipe is to be laid, it shall have all dirt and foreign matter removed from it and be swabbed with a solution containing 1-percent hypochlorite. The use of chlorine salts shall be accordance with recommended procedures in AWWA C651 and recommendations of the manufacturer of the pipe, fittings and
  - Every precaution shall be used to protect the pipe against the entrance of foreign material before the pipe is placed in the new line. At the close of the days work or whenever the workmen are absent from the job, the end of the last laid section of pipe shall be plugged, capped or otherwise tightly closed to prevent the entry of oreign material of any nature.
  - If the Contractor, or pipe-laying crew, cannot put the pipe into the trench and in place without getting dirt into it, the District may require that before lowering the pipe into the trench, a heavy, tightly woven canvas bag of suitable size shall be placed over each end and left there until the connection is made to the adjacent pipe. At times when pipe laying is not in progress, then open ends of pipe shall be 3.1. Blocking: Blocking of all bends, plugs, caps, reducers and tees with concrete is shall apply during the noon hour as well as overnight. If water is in the trench, the allowable where mechanical restraints here specified are used. AWWA 651 Sec. 4.6. Wet-Trench Construction are met.
  - portions of, or extensions to existing systems, shall be chlorinated. The chlorination by hand application of a suitable coating or by encasement of the entire assembly with 8-mil method shall be an appropriate method recommended in AWWA 651 Sec. 5. The (0.2 mm) loose polyethylene film in accordance with AWWA C105. point of application of the chlorinating agent shall be at the beginning of the pipeline 4. extension or any valved section of it and through a corporation stop in the top of the
  - Water from the existing distribution system or other source of supply shall be controlled so as to flow slowly in to the newly laid pipeline during the application of chlorine. The rate chlorine mixture flow shall be in such proportion to the rate of 5. water entering the pipe that the chlorine dose applied to the water entering the newly laid pipe will meet recommended chlorine doses. Valves shall be manipulated so that the strong chlorine solution in the water line being treated will not flow back into the line supplying the water. Treated water shall 6.
  - be retained in the pipe long enough to destroy all non-spore forming bacteria. This 6.1. Connections With Existing Installations: When the proposed watermain or its
  - shall be operated while the pipeline is being filled with the chlorinating agent. Following the chlorination, all treated water shall be thoroughly flushed from the newly laid pipeline at its extremities until the replacement water throughout its length, upon test, is proven comparable to the quality of water serving the public from the existing water supply system and approved by the Public Health Authority having jurisdiction. This quality of water delivered by the new main should continue for a period of at least two full days as demonstrated by laboratory examination of samples taken from a tap located and installed in such a way as to prevent outside contamination. Samples should never be taken from an unsterilized hose or from a fire hydrant, because such samples seldom meet current bacteriological standards. Should the initial treatment fail to result in the conditions specified, the chlorination procedure shall be repeated until such results are obtained.
  - VALVES . Butterfly Valves (14 inch or larger): All butterfly valves shall be of the rubber seated, A thin film of gasket lubricant shall be applied to the inside surface of the tight closing type. They shall meet or exceed performance requirements for water gasket. Gasket lubricant shall be of a solution of vegetable soap or other solution application of applicable recognized standards such as AWWA C504. All butterfly valves shall be approved equal to those named. Both valve ends shall be mechanical-joint, The spigot end of the pipe shall be cleaned and entered into the rubber gasket underground, or flanged with 150# flanges inside, per AWWA specifications. Accessories in the bell, using care to keep the joint from contacting the ground. The joint shall (bolts, glands and gaskets) shall be supplied by the valve manufacturer. All valves must furnished with a depth mark shall be marked before assembly to assure that the underground-service operator torque rating throughout entire travel, to provide capability for operation in emergency service. All 14 inch or larger valves shall be installed with
    - use in potable-water-service applications and shall not contain asbestos or other municipal department concerned. constituents identified by the USEPA as being unacceptable for contact with potable 6.5. Record Drawings: The Contractor shall keep a record in duplicate, accurately
    - operating conditions specified. Valves shall be capable of easy closure by one main be provided on a disk with an Auto Cad format. GIS shapefiles and with GPS points left and be equipped with 2-inch standard nut. AWWA C504. Upon request, the manufacturer shall furnish certified copies of the material and workmanship for a period of one (1) year from the date of final acceptance by reports covering these tests
    - Valves approved for interior installations are: Pratt 150 psi, AWWA 504, Fl., gear operated or Coated Butterfly Dresser "450" or approved equal. MJ gear operated, adj. box or coated butterfly, Dresser "450", Mueller Link Seal III the potable water supply from cross-connection with ANY source of contamination. or approved equal.
    - Gate Valves (12 inch or smaller): All gate valves shall be reduced wall, installations. resilient-seated gate valve, meeting all specifications of AWWA C515. All gate 7. valves shall be approved equal to those named. Both valve ends shall be manufacturer.
    - The valve body and associated parts shall be manufactured of material recommended in AWWA C515 or as otherwise specified in AWWA standards. Packing shall be suitable for use in potable-water-service applications and shall not contain asbestos or other constituents identified by the USEPA as being unacceptable for contact with potable water All valves shall open left and be equipped with 2 inch standard nut for
    - underground installation. Each valve shall be capable of meeting all testing and leakage requirements in AWWA C515. Upon request, the manufacturer shall furnish certified copies of the reports covering these tests. Valves approved for interior/exterior installations are: AFC series 2500 or approved
    - 2.2B Gate Valves (8 inch or smaller): All gate valves shall be of the resilient seated type underground, or flanged which will meet requirements in AWWAC110. Accessories (bolts, glands and gaskets) shall be supplied by the valve manufacturer. The valve body and associated parts shall be manufactured of material

recommended in AWWA C515, C509or as otherwise specified in AWWA

- and shall not contain asbestos or other constituents identified by the USEPA as being unacceptable for contact with potable water All valves shall open left and be equipped with a 2 inch standard nut for underground installation. Each valve shall be capable of meeting all testing and leakage requirements in AWWA C509 or C515. Upon request, the manufacturer shall furnish certified copies of the reports covering these tests
- Valves approved for interior/exterior installations are: Mueller Resilient-wedge A2360 or AFC series 2500. Valve Vaults and Boxes: Valve boxes are required for all 12 inch or smaller buried valves. Valve boxes shall be cast-iron three-piece construction with a cover and the word "WATER" marked thereon. Covers shall be set at finished grade lines and be centered vertically over valves. Approved valve boxes are: Mueller No. H-10357, Size E or approved equal.

#### Valve vaults are required on all valves 14 inches or larger. Vaults shall be 60 inches in diameter with manhole frame and cover equal to Neenah Foundry R 1670

- or East Jordan Iron Works #1117, , cast-iron steps equal to Neenah R-1981-I cast in manhole walls. Manhole shall be pre-cast, preferably all in one piece, and reinforced. The vault cone section cannot exceed 36" in height and that the manhole lid shall contain a checkered pattern and be lettered "Water" Installation of Valves: All butterfly valves shall be inspected upon delivery in the field
- the pipe in the manner as set forth in AWWA standards the same as for gate valves and for the type of connection ends furnished. Valves 12 inches and under shall be installed in a vertical position and be provided with a standard valve chamber of cast-iron valve box so arranged that no shock will be transmitted to the valve. The box shall be centered over the operating nut, and the cast-iron box cover shall be set flush with the roadbed or finished surface. Valves 14 inches or larger shall be installed in valve manholes as

to insure proper working order before installation. They shall be set and jointed to

- After installation, all valves may be subjected to the field test for piping as outlined in these specifications. Should any defects in material or workmanship appear, the Contractor shall correct such defects with the least possible delay and to the satisfaction of the District. Should the Contractor fail to do this within a reasonable period of time in the judgment of the District, the District may cause such defects to be corrected and deduct the cost thereof from any money or payments due or to become due the Contractor
- SERVICE MATERIALS Service materials shall consist of copper pipe, or minimum PC160 polyethylene (IPS). brass corporation and curb stops, with curb boxes, as necessary for constructing the type of water service described herein. Copper service pipe shall be Type K soft temper pipe conforming to
- specifications in AWWA C800. Polyethylene tubing (IPS) shall conform to requirements in AWWA C901. Polyethylene requires inserts to support compression connections. Inserts (stiffeners) shall be 1" IPS stainless steel. Corporation stops shall conform to specifications in AWWA C800 and shall be 1 inch minimum by 1 inch minimum with 1 inch minimum thread inlet and 1 inch minimum outlet for flared copper/compression pipe joint as manufactured by the Ford Meter Box Company, Wabash, IN, or approved equal. Curb stops shall conform to specifications in AWWA C800 and shall be 1 inch minimum size, Minneapolis pattern, roundway stop with outlet for flared/compression
- Curb stop boxes shall be 2 inch Minneapolis pattern, 6 foot 6 inch minimum adjustable bury extension for use on a 1 inch minimum curb stop, having a 1 1/4 inch upper section and a lid with a brass pentagon plug as manufactured by Mueller Company, Decatur, IL, or approved equal.

pipe joint inlet and outlet as manufactured by Ford Meter Box Company, Wabash,

For water services 4" in diameter, pipe shall match the existing adjacent water main material **BLOCKING & SPECIAL RESTRAINED JOINTS** 

IN. or approved equal.

- closed by a watertight plug or other means approved by the District. This provision required, as shown on approved plans or standard recommendations. An exception is seal shall remain in place until the ditch is pumped completely dry or provisions of 3.2. Special Restrained Joints: Restraining mechanisms for push-on or mechanical-joints may be used in lieu of concrete bracing, if so indicated in the plans and specifications. Tie Before being placed in service, all new water distribution systems and repaired rods, clamps, or other components of dissimilar metal shall be protected against corrosion
  - WATERMAIN CROSSINGS OF HIGHWAYS OR RAILROADS Watermains placed under railroads or highways shall be Class 150 pipe with mechanical-joints meeting the applicable requirements of AWWA, and all other agencies having jurisdiction. Special requirements will be approved by the District in advance of construction. CLEAN-UP
  - The Contractor shall restore all property to as nearly original condition as possible. This includes re-seeding of grassed areas, replacement of fences, shrubs, bushes, etc., and repairs to existing pavement PIPEWORK (AND MISCELLANEOUS)
- period shall be as recommended in AWWA 651 for the method of chlorination branches connect with existing watermains, the Contractor shall not connect such structure with the watermain unless shown on the plans, or unless directed to do so by the District. If, In the process of chlorinating newly laid pipe, all valves or other appurtenances however, a connection with new construction is not made, the Contractor shall restore existing facilities to its original form so that it may function as in its original capaVillage
  - 6.2. Construction near Asbestos-Concrete (AC) Watermain: When working near AC watermain, contractors shall not disturb the cradle of the pipe. Should the disturbance of the cradle of the pipe be unavoidable to permit construction to reasonably occur, the watermain shall be severed at the limit each side of the trench and removed during construction, once the immediate conflict is completed, the pipe shall be replaced as directed by District Staff. Under any circumstance, water service interruption to existing customers shall be minimized and limited to less than
  - 6.3. Disturbance of existing water services: When a contractor or outside utility company is performing excavations for infrastructure installation that require an existing water service to be temporarily removed or cut, it shall be done in the following prescribed manner. If the center of the new infrastructure being installed is equal to or less than 15 horizontal feet from the existing curb box (shut off valve) for the service, then the contractor shall reconnect the water service with a new curb stop/box and new, in kind pipe to the far side of the excavation for the new infrastructure- utilizing only one (1) three piece union. If the center of the new infrastructure being installed is greater than 15 horizontal feet from the existing curb box, then the contractor may use two (2) three piece unions and a piece of in-kind pipe to reconnect the water service. In every instance, the contractor shall: (1) thoroughly compact the approved backfill material under the water service before it
- is reconnected and (2) remove any part of the water service that was crimped, damaged or altered for the purpose of constructing the new infrastructure. 6.4. Permits and Fees: The Contractor shall insure that all necessary permits are issued The valve body shall be high-strength cast-iron, ductile-iron or alloy cast-iron and fees paid before any work is started. The Contractor shall obtain a letter of approval on conforming to recommendations in AWWA 504 Sec. 3. Packing shall be suitable for the repair, or reconnection of any utilities from the utility company concerned, or the
- locating all pipelines installed as to surface locations and depths and indicating the exact The rated torque capability of each actuator shall be sufficient to seat, unseat, locations of all connections or provisions for future connections indicating sizes. One record and rigidly hold in any intermediate position the valve disc it controls under the drawing will be provided to the District upon completion of the project. Also, as-builts shall using a standard valve key, even under emergency conditions. All valves shall open provided during construction, not during design, shall be provided along with as-builts. 6.6. Guarantee-Warranty: The Contractor shall guarantee that all equipment, apparatus, Each valve shall be capable of meeting all testing and leakage requirements in and work will satisfactorily perform the intended function and remain free of defective
- the District. A maintenance bond in favor of the District may be required, and such bond would become effective on the date of final acceptance and remain in effect for a period of Valves approved for underground installations are: Pratt "Groundhog" 150 psi, 6.7. Backflow Prevention: The Contractor shall take all necessary precautions to protect Approved backflow prevention devices must be installed in all commercial and industrial
- River Crossing Pipe: Watermain for river crossings shall be restrained joint ductile iron pipe manufactured mechanical-joint, underground, or flanged which will meet requirements in AWWA with requirements of AWWA C151/A2.21.21. Push-on joints for such pipe shall be in C110. Accessories (bolts, glands and gaskets) shall be supplied by the valve accordance with AWWA C111/A21.11. Pipe shall be Class 55 thickness in accordance with

AWWA C150/A21.50.

- Fittings shall be ductile iron and in accordance with applicable requirements of either AWWA C153/A21.53 or C110/A21.10, and shall utilize a push-on or mechanical restrained ioint where applicable Restrained joints for river crossing pipe and fittings shall be designed for a working
- pressure of 350 psi. Joints shall be capable of being deflected, after assembly, 4%, in 6 through 12 inch sizes, and 3% in 14 through 24 inch sizes. Pipe and fittings shall have a cement mortar lining and seal coating, where applicable, in accordance with AWWA C104/A21.4. The preferred method of installation is pulling it into position. After trenching the river for
- three feet (3') of cover, the joints are assembled on shore. The river bank is trenched and sloped to prevent over-deflection of The joints during pulling. The lead pipe is usually a connecting piece which is construction, meeting all specifications of AWWA C515 or C509. All gate valves capped or plugged to keep unwanted water out of the pipe and reduce the weight of the shall be approved equal to those named. Both valve ends shall be mechanical-joint, submerged pipe. A cable or harness is attached behind the first joint and the pulling cable secured to the lead end to keep the lead pipe up during pulling. The line is pulled into place from the opposite shore. To prevent flotation of the pipe, the Contractor shall fill each
- with three feet (3') of 3" (minimum) shot rock. standards. Packing shall be suitable for use in potable water service applications

  Pipe shall be installed per the requirements of permits issued by the Corps of Engineers, Illinois Division of Natural Resources and any other agency having jurisdiction. Valves shall be provided at both ends of river and creek crossings so that the section can be isolated for testing and repair. The valves shall be easily accessible, and not subject to flooding and located in a valve vault according to Section 2.3. Permanent 1" taps and valves shall be installed on the river or creek side of each valve to allow insertion of a small meter to

section with water before being pulled into place. The Contractor shall then cover the pipe

determine leakage and for sampling purposes. Any items or provisions not covered by these standard specifications shall be referred to the District General Manager, District Engineer or other designated official whose decision shall be final. Neither the District, nor the Contractor shall take advantage of any apparent error or omission in these specifications, and the District shall be permitted to make such minor changes and alterations as may be deemed necessary for the fulfillment of the intent of these specifications.

#### **EARTHWORK NOTES**

At least 90% shall pass the 2.00 mm (no. 10) sieve.

- Definition for materials
- A. "Organic material" is defined as material having an organic content in excess of 8% or as etermined by the project owner's engineer
- B. Topsoil shall be friable and loamy (loam, sandy loam, silt loam, sandy clay loam, or clay loam). Sand content shall generally be less than 70% by weight, and clay content shall generally be less than 35% by weight. Organic soils, such as peat or muck, shall not be used as topsoil. C. Topsoil shall be relatively free from large roots, weeds, brush, or stones larger than 25 mm (1 inch).
- D. Topsoil ph shall be between 5.0 and 8.0. topsoil organic content shall not be less than 1.5% by weight. Topsoil shall contain no substance that is potentially toxic to plant growth. E. "Existing on-site material within moisture content limits" is defined as material of such a quality that
- the specified compaction can be met without any additional work other than "densifying" with a roller. Scarification and drying of this material will not need to be done prior to compaction. F. "Existing on-site material NOT within moisture content limits" is defined as material with a high moisture content that can not meet specified compaction requirements without scarification and
- drying, chemical stabilization, etc. of this material prior to compaction. G. "Unsuitable material" is defined as any materials that: G.1. Cannot be utilized as "topsoil", (organic) for landscape areas. G.2. Cannot be utilized as "engineered fill", regardless of moisture content and/or does not
- structurally meet the standards of the project owner's engineer's recommendations for "engineered fill" G.3. These materials can be defined as natural materials or materials from "demolition" and/or excavated areas; i.e., they are materials that would not be suitable for "engineered fill".
- H. "Off-site material" is defined as any materials that are brought from any area not indicated on this I. "Trench backfill" shall be defined as any materials used for the purposes of backfilling any trench and/or any excavation requiring backfilling. Refer to the section titled "standards for fill areas" for determine acceptable materials and procedures
- J. the term "stripping" or "strip" as used herein shall be defined as the removal of all "organic materials" from a given area, the term "organic materials" is defined as material having an organic content over 8% based on ASTM test method D-2974 or as defined by the owner's engineer.
- Standards for cut areas: A. A "cut area" is defined as any area where "engineered fill" is not required to bring the site to design subgrade elevation, instead excavation or "cutting" is required to achieve design subgrade
- elevation. ("Engineered fill" being defined as any material being "offsite material".) B. In "cut areas" the site contractor shall perform one of the following procedures at the discretion and in the presence of a representative of the owner's engineer and the project architect: B.1. Item 1: for exposed pavement subgrades consisting primarily of granular soils the exposed
- subgrade should be compacted/densified by at least one (1) pass of a smooth-drummed vibratory roller having a minimum gross weight of 10 tons. B.2. Item 2: for exposed pavement subgrades consisting primarily of cohesive soils, the exposed subgrades should be proof-rolled with a fully-loaded six-wheel truck having a minimum gross weight of 25 tons. the maximum allowable deflection under the specified
- equipment shall be 1/2". C. In the event that adequate stability of granular soils subgrades cannot be achieved by the procedures as outlined in item 1, above, or that deflections of greater than 1/2" are observed during the "proof rolling" of cohesive soils subgrades, as outlined in item 2, above, additional corrective measures will be required. These measures could include, but not necessarily be limited to, scarification, moisture conditioning, and re-compaction; undercutting & replacement with engineered fill and chemical stabilization, etc.. with crushed stone (with or without geotextiles);
- chemical stabilization, etc. D. It shall be considered as part of the scope of these documents and thus part of this contractor's responsibility to perform scarification and allow for drying of the subgrade per illinois dot standards (scarify a 16" depth for 3 days). If this does not work then additional drying measures shall be an extra to the contract.

Any proposed corrective measures by the contractor should be reviewed by the owner's engineer

and/or "soil" having their origin for either the construction site and/or "offsite material". Materials

- and the project architect. in the event that in the opinion of the owner's engineer and/or the project architect proof rolling is not a good indicator of the subgrade stability an alternative method shall be specified by the owner's engineer and/or the project architect. Standards for fill areas: A. A "fill" area is defined as any area where material is required to adjust the existing elevation to a proposed subgrade elevation. These areas will require the installation of "engineered fill" to achieve design subgrade elevation. "Engineered fill" material can be defined as either "granular"
- having their origin from the construction site is referred to as "borrow". The composition and the compaction standards of the engineered fill for this project will be specified by owner's engineer and the project architect.

B. In "fill" areas will borrow materials are allowed to be utilized as engineered fill the site contractor

- shall compact the borrow to the specified compaction. Compaction standards (for engineered fill and back filled areas) A. Prior to placement of fill in areas below design grade, the exposed subgrade should be observed by a representative of the owner's engineer to evaluate that adequate stripping has been performed. Additionally, the proof rolling or compacting procedures outlined in the "standards for cut areas" section of this cpi should be performed. It is typical practice to proof roll, and densify if necessary, exposed subgrades prior to filling. If soft or unstable subgrades are observed, these areas should be stabilized or undercut. minimum compaction standards are based upon a percentage of the fill or backfill material's maximum standard proctor dry density (ASTM
- specification D-698). All engineered subgrades should meet the following minimum compaction: A.1. Areas under pavement sections: A.1.A. 95% standard proctor for all fill placed more than 12 inches below passenger car pavement sections and 95% standard proctor for the top 12 inches.
- brought to grade with "topsoil" to a depth of 12 inches in areas to be seeded, 6 inches in areas to be sodded, and 24 inches for all interior curbed landscape A.3. Base course portion of pavement sections:

A.2.A. 90% standard proctor for all fill placed in landscape areas. These areas should be

A.3.A. 95% standard proctor for all base course materials that are part of a "pavement

- B. Place all backfill and fill materials in layers that are not more than 8" in loose depth. before compacting, moisten or aerate each layer as necessary to provide optimum moisture content. Compact each layer to required percentage of maximum density of the area.
- a finish product such as parking areas, driveways, roadways, sidewalks, etc. finish graded areas would generally be those areas receiving "landscaping" such as seed, sod, trees, bushes, mulch, B. The site contractor is responsible for "finish grading" all areas within the perimeter of the "construction site". The definition of the "construction site" is the area encompassing all disturbed

A. The term "finish grading" as used herein shall be defined as that condition that areas not receiving

areas that were disturbed as a result of the construction process relating to the general contract

## GENERAL PAVING NOTES

C. No ponding shall occur on paved surfaces.

which this site contract was part of.

A.2. Landscaped areas:

Finish grading

- All pavement shall be constructed in accordance with the following: A. Concrete pavement shall be constructed in accordance with the Illinois Department of Transportation (IDOT) "Standard Specifications for Road and Bridge Construction" (Standard
- Specifications), latest edition, including all updates and standards thereto. B. Standards and requirements of Village of Roscoe. Additional details and requirements provided in the contract documents, including this plan set.
- 2. All proposed pavement areas shall be stripped of all topsoil and unsuitable material and excavated or illed to within 0.10 feet of design subgrade. 3. The subgrade of pavement areas shall be free of all unsuitable material and shall be compacted to a minimum 95 per cent of Standard proctor density.
- base material. Notify the engineer at least 48 hours prior to finished subgrade preparation. The earthwork contractor shall be responsible for removal of spoil material from the underground contractors, preparing the roadway subgrade, proof rolled, placing topsoil to a minimum depth of 4 inches to finished grade in the parkways areas only, grading of drainage swales, and all other tasks as directed
- by the owner or engineer. 6. The quantities contained in these documents are approximate and estimated, and are presented as a guide to the contractor in determining the scope of work. It is the Contractor's responsibility to determine all quantities and to become familiar with the site and soil conditions.

The subgrade shall be proof rolled, inspected and approved by the Village of Roscoe prior to placing the

- The paving Contractor is responsible for the final subgrade preparation, proof rolling, the pavement base. binder, and surface, and all final clean-up and related work associated with the paving operation. 8. The proposed pavement shall be of the type and thickness as specified in the engineering drawings, and constructed in strict conformance with the previously referenced IDOT standard specifications and Village
- 9. Areas of deficient paving, including compaction, smoothness, thickness, and asphalt mixture, shall be delineated, removed, and replaced in compliance with Specifications requirements unless corrected otherwise as directed and approved by the owner. 10. Field quality control tests specified herein will be conducted by the owner's Independent Testing Laboratory (ITL) at no cost to the contractor. Any testing and inspection resulting from the requirements
- of necessary permits by Village of Roscoe or the State of Illinois shall be at the contractor's expense. The contractor shall perform additional testing as considered necessary by the contractor for assurance of quality control. Retesting required as a result of failed initial tests shall be at the contractor's expense. A. Field testing, frequency, and methods may vary as determined by and between the owner, the ITL and Village of Roscoe
- Testing shall be performed on finished surface of each asphalt concrete course for smoothness. using 10'-0" straightedge applied parallel with, and at right angles to centerline of paved area. The following tolerances in 10 ft shall not be exceeded: Base Course Surface: 1/4-inch, Wearing Course Surface: 1/8-inch.

## 5291 ZENITH PARKWAY LOVES PARK, IL 61111 VOICE: (815) 484-4300 FAX: (815) 484-4303 www.arcdesign.com Illinois Design Firm License No. 184-001334

PROJECT NAME OWNER'S NAME

## **CLEARWING** LOT A PUD

10311 CLEARWING LN ROSCOE, IL 61073 WINNEBAGO COUNTY

WHITE OAK TRUST 747 GLEASMAN ROAD ROSCOE, IL 61073

CONSULTANTS

DATE 11-14-2024 I. OWNER REVIEW AGENCY APPROVAL 01-14-2025 11.--**REVISIONS** DATE

ISSUED FOR

SHEET TITLE **GENERAL NOTES** 

SHEET NUMBER 24146

PROJECT NUMBER

C01

#### STORM SEWER NOTES

- 1. Storm sewer shall be constructed in accordance with the following:
- A. "Standard Specifications for Water and Sewer Main Construction in Illinois" (Standard Specifications), Seventh Edition dated 2014 (and all revisions and supplements thereto) Standards and requirements of Village of Roscoe.
- Additional details and requirements provided in the contract documents, including this plan set. Where criteria of the aforementioned specifications conflict, the more stringent criteria shall be
- 2. All storm sewer pipe shall be reinforced concrete pipe unless otherwise specified in this plan set. 3. All storm sewer system elements shall conform to the following specifications:
  - A.1. Sump pump service connection and storm sewer extension (4" and 6"): A.1.a. ABS pipe shall be in accordance with ASTM D2751.
- SDR 35 PVC pipe shall be in accordance with ASTM D3034. A.2. Concrete sewer pipe (10" diameter and smaller) shall be Class III (minimum) in accordance
- Reinforced circular concrete pipe (12" diameter and larger) shall be Class III (minimum), wall B. in accordance with ASTM C76.
- Reinforced concrete arch culvert pipe shall be double-lined reinforced, Class III (minimum) in
- accordance with ASTM C506. Reinforced concrete elliptical culvert pipe shall be Class HE-III or VE-III (minimum) in accordance with ASTM C507.
- Underdrain pipe (4" and 6") shall be SDR 35 PVC pipe in accordance with ASTM D2729. Galvanized corrugated steel culvert pipe shall be type B, with a minimum wall thickness of 14
- gauge per AASHTO M246 (shall only be used for culverts). B. Joints for storm pipe: ABS pipe joints shall be in accordance with ASTM D2235.
- PVC pipe joints shall be in accordance with ASTM 3121 (push-on type), except underdrain pipe, which shall have solvent welded joints.
- Casing Pipes C.1. 1/4" thick steel in accordance with ASTM A252, grade 2, or ASTM A139, grade B, or approved equal having a minimum yield strength of 35,000 psi.
- Manholes and Catch Basins: D.1. Manholes and catch basins shall be precast reinforced concrete in accordance with ASTM
- Manholes and catch basins shall be sized as follows:
- For sewers eighteen inches in diameter or less, manholes shall have a forty-eight inch inside diameter D.2.b. For sewers twenty-one to thirty-six inches in diameter, manholes shall have a sixty inch
- inside diameter For sewers greater than thirty-six inches in diameter, manholes shall have a seventy-two
- inch inside diameter or as specified in this plan set. Adjusting rings:
- D.3.a. No more than 2 precast concrete adjusting rings shall be allowed. Precast concrete adjusting rings shall have a maximum height of 6 inches. D.4. Seals:
- D.4.a. For pipe and frame seals, all pipe connection openings shall be made watertight with hydraulic cement. The hydraulic cement sealing pipe connections shall extend the full thickness of the structure wall. Hydraulic cement shall also be applied within the structure from the cone section, past all adjustment rings, to the frame. D.5. All bottom sections shall be monolithically precast including bases and invert flowlines.
- a. Inlets shall be precast reinforced concrete in accordance with ASTM C478 and ASTM C443.
- Inlets shall have a twenty-four inch inside diameter and a maximum depth of four feet. Adjusting rings: c.1. No more than 2 precast concrete adjusting rings shall be allowed.
- c.a. Precast concrete adjusting rings shall have a maximum height of 6 inches. Only one pipe connection shall be allowed, and it shall be precast with resilient rubber
- watertight pipe to manhole sleeves or seals. External flexible watertight sleeves shall also extend from the manhole cone to the manhole frame.
- e. Bottom sections: All bottom sections shall be monolithically precast including bases and invert flowlines. F. Castings (Unless otherwise noted within the plans):
- F.1. Unless otherwise specified as a "closed lid", manhole frames and covers shall be as listed
- below. Close lid frame and covers shall be Neenah R-1916-C embossed "STORM SEWER". e.a. Manhole steps shall be Neenah R-1981-N
- f. Six inch curb and gutter inlet shall be Neenah R-3278-A Yard inlets shall be Neenah R-4340-B.
- Parking lot inlets shall be Neenah R-2595-A. G. Crushed Granular Bedding shall be crushed gravel or crushed stone course aggregate in accordance with ASTM C33 (Size No. 67).
- 4. All end sections 24" and greater shall come equipped safety bars per IDOT detail Standard 542411. 5. Inspect pipe for defects and cracks before being lowered into the trench, piece by piece. Remove and replace defective, damaged or unsound pipe or pipe that has had its grade disturbed after laving. Protect open ends with a stopper to prevent earth or other material from entering the pipe during construction.
- Remove dirt, excess water, and other foreign materials from the interior of the pipe during the pipe laying Install pipe in accordance with manufacturer's written recommendations.
- Commence installation at the lowest point for each segment of the route. Lay RCP with the groove or bell end up-stream.
- 8. Lay pipe to the required line and slope gradients with the necessary fittings, bends, manhole, risers and other appurtenances placed at the required location as noted on Drawings.
- 9. All storm sewers under and within two feet of any existing or proposed pavement shall be backfilled with granular backfill material IDOT gradation FA-6 or approved equal (Grade 8 or Grade 9). 10. Compact backfill to 98 percent of maximum density in accordance with ASTM D698, (or 95 percent of

maximum density, in accordance with ASTM D1557) obtained at optimum moisture as determined by

- 11. Do not backfill trenches until required tests are performed and utility systems comply with and are
- accepted by applicable governing authorities. 12. Backfill trenches to contours and elevations shown on the drawings.

#### SANITARY SEWER NOTES [FRSA]

Sanitary Sewer shall be constructed in accordance with the following:

- A. The Four Rivers Sanitation Authority (FRSA) shall be notified forty-eight (48) hours before construction of the sanitary sewer can commence. Contact FRSA Survey and Field Operations Mgr. Ben Christiansen, cell 815-209-7952. Any sanitary sewer construction performed in the absence of an FRSA
- B. Notice Allowing Connections must be issued by the FRSA before individual service connections will be permitted under the standard FRSA service
- C. The permit holder is responsible for the sanitary sewer system workmanship and materials for two (2) years after the FRSA issued Notice Accepting the Sewer, and for the sanitary sewer trench settlement for a period of three (3) years after the completion of the project.
- A. "Standard Specifications for Water and Sewer Main Construction in Illinois" (Standard Specifications), seventh edition dated 2014, and all revisions and
- B. "General Provisions and Technical Specifications for Sanitary Sewer Construction" in the Four Rivers Sanitation Authority (formerly known as the Sanitary District of Rockford) dated October 24, 1983, and all standards and revisions adopted by the Board of Trustees for said Sanitary District of
- C. Additional details and requirements provided in the contract documents, including this plan set. Where criteria of the aforementioned specifications
- conflict, the more stringent criteria shall be implemented. 3. All PVC sanitary sewer (SDR 26 AND SDR 35) shall meet the requirements of ASTM D-3034 (4"-24") or ASTM F-679 (18"-24") with joints in accordance with ASTM D-3212. All PVC watermain-quailty sanitary sewer (SDR 26) shall meet the requirements of ASTM D-2241 with joints in accordance with
- ASTM D-3139. Pipe bedding for all PVC pipe shall be Class 1A in accordance with ASTM D-2321-74. 4. Sanitary sewer services shall be 6" PVC/Watermain Quality SDR 26 in accordance with ASTM D-2241, and shall extend to the limits shown on the plans. Joints between the wye and end of service riser shall be gasketed in accordance with ASTM D-3139. All services shall be sloped from the main at 1% minimum. Mark at backside of cleanout with a 2x4 painted green. End of service risers are required in accordance with the FRSA standard details
- 5. WYE or TEE branches shall be a minimum 7' from the outside of any sanitary manhole and be furnished and installed by the Contractor as shown on the Engineering drawings.
- 6. All testing, fittings, bedding, granular cradle, and trench backfill where necessary shall be included in the unit costs for the installation of the underground facilities unless quantified on plans.
- 7. PVC pipe should be installed with proper bedding providing uniform longitudinal support under the pipe. Bedding material should be worked under the sides of the pipe to provide satisfactory haunching. Initial bedding material should be placed to a minimum depth of one foot over the top of the pipe. All
- 8. After placement and compaction of pipe embedment materials, the balance of backfill materials may be machine placed and should contain no large stones or rocks, frozen material or debris. Excavated materials free from topsoil may be used in the final trench depth provided they are placed in 9" lifts loose measured and compacted to not less than 95% ASTM D-698 standard proctor.
- 9. All sanitary sewer manholes shall have eccentric cones with the cone openings centered over the pipe. All manholes shall be guaranteed by the contractor for 3 years after FRSA acceptance.

pipe embedment material should be selected and placed carefully, avoiding large stones, frozen lumps, and debris.

- 10. All sanitary sewer manholes shall be 48-inch diameter precast concrete, unless shown otherwise.
- 11. The allowable infiltration shall not exceed 200 gallons/inch diameter/mile/24 hours.
- 12. Sanitary sewers shall be air-tested in accordance with FRSA requirements. 13. All new sanitary sewer manholes shall be vacuum tested in accordance with ASTM C 1244.
- 14. All sanitary sewers under or within two feet of any existing or proposed street pavement or curb shall be backfilled with IDOT approved granular backfill material. Trench backfill shall be placed in lifts not to exceed 9" compacted to 95% of maximum standard proctor density. 15. Four Rivers Sanitation Authority shall be notified 48 hours prior to the start of construction and air testing of sanitary sewers. Water main, water
- services, and storm sewer must be installed and FRSA notified soon after installation before sanitary sewer testing can be performed. 16. Trenches must be backfilled to 2' below subgrade and mains and services must have 5' minimum depth of cover over the top of pipe before sanitary
- sewer testing can be performed.
- 17. Manhole frames shall be provided with self sealing lids, FRSA Logo, Neenah 1670-2004 /-0358 only. Neenah or East Jordan per FRSA Standard Details Sheet (Sheet C10).
- 18. Upon completion of construction, all sanitary manhole castings shall be exposed and set at final grade. 19. Exterior manhole seals shall be required on all new manholes including the barrel sections.
- 20. Deflection testing for flexible conduit.
- A. All sanitary sewer lines shall be deflection-tested after 30 days following final backfill operations. B. If the deflection test is to be run using a rigid ball or mandrel, it shall have a diameter equal to 95% of the base diameter of the pipe as established in
- proposed ASTM D-3034. The test shall be performed without mechanical pulling devices. Wherever possible and practical, the testing shall initiate at the downstream lines and proceed towards the upstream lines.
- D. Maximum allowable pipe deflection is 5%. Where deflection is found to be in excess of 5% of the original pipe diameter, the Contractor shall excavate to the point of excess deflection and carefully compact around the point excess deflection was found. The line shall then be retested for deflection.
- However, should after the initial testing the deflected pipe fail to return to the original size (inside diameter) the line shall be replaced. 21. Proposed sanitary sewers shall be separated at least 10' from existing and proposed water mains, water services, storm structures and storm sewers measured from outside edge to outside edge. The top of proposed sanitary sewers shall be at least 18" below the bottom of existing and proposed water mains and storm sewers. When sanitary sewer crosses over water main or storm sewer, the bottom of the sanitary sewer shall be at least 18" above the top of water main or storm sewer.
- 22. Where sanitary sewer depths exceed 12' the contractor shall use the Alternate Service Riser method to install the sewer service line so that the invert of the service, at the property line, is 10.5' below the proposed centerline grade. 23. Upon completion of construction all sanitary manhole castings shall be exposed and set to final grade. FRSA must inspect this work.
- 24. Exterior manhole seals will be required as part of manhole adjustments. Flattop manholes are not permitted. No adjusting rings are required outside a paved roadway or in a roadway with curb and gutter. All manholes adjusted or reconstructed where more than two rings are involved will require vacuum
- 25. The Four Rivers Sanitation Authority will furnish a full-time inspector for all sanitary work. 26. All fill material in the area of sanitary sewer mains and services must be placed and compacted prior to installation of the sewer mains and services.
- 27. The Four Rivers Sanitation Authority specifies the following for manhole adjustment requirements: A. A minimum of 4" of adjusting rings (4" adjusting ring not required in turf areas or in full curb and gutter roadways)
- B. A maximum of 12" of adjusting rings A maximum of 1- 12" adjusting ring per manhole.
- D. A maximum of 30" from the top of casting to the first step Notes: Adjustment by grouting is not permitted. Where the roadway agency of jurisdiction allows, rubber adjusting rings shall be used
- Labeled pipe lengths are from center of manhole to center of mannole 29. The length of the public sewer shall be the distance from the center of the downstream manhole to the center of the upstream manhole. The slope of the
- public sewer and inverts of the sewer at the manholes shall be based on the distance between the outside faces of the manholes. 30. All watermain and watermain services shall be installed before the sanitary sewer is air and deflection tested
- 31. FRSA must receive a satisfactory utility plan for gas, electricity, cable TV, telephone, etc. in order to ensure that these utilities will not conflict with the proposed sanitary sewer locations.
- Sanitary Sewer Service Connection 1. Contractor must complete a standard FRSA Industrial/Commercial (I/C) application and submit to FRSA for approval of the sewers shown as part of the building connection permitting process.
- 2. The contractor shall coordinate all FRSA fees associated with this project, the contractor shall pay all application fees, and should be reimbursed by the owner. Contractor shall provide the owner with a written breakdown of all FRSA fees with evidence of payment.
- FRSA will require inspection of the sewer installation. Contractor shall coordinate this work directly with FRSA. Owner shall pay for all inspection fees. 4. All sanitary sewer, manholes, services and other appurtenances shall be installed as required by the FRSA and/or the Village contractor is responsible for familiarizing himself with the specific requirements for materials and construction for these two agencies.
- 5. The Village of Roscoe may also require inspection of the building connections. the contractor shall coordinate all Village inspections with the Roscoe building inspector, if needed. Contractor to install 6" services from main to designated point of connection as shown on the plans as part of sewer installation.

FRSA sanitary sewer service connection permits will not be issued under the Standard FRSA process until after the FRSA has issued a "Notice Allowing

#### SUMMARY OF QUANTITIES

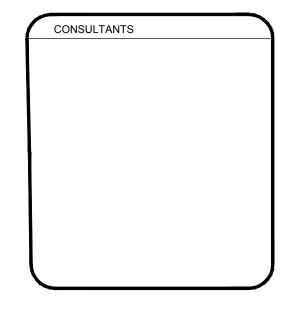


PROJECT NAME OWNER'S NAME

## **CLEARWING** LOT A PUD

10311 CLEARWING LN ROSCOE, IL 61073 WINNEBAGO COUNTY

WHITE OAK TRUST 747 GLEASMAN ROAD ROSCOE, IL 61073



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SHEET TITLE GENERAL NOTES, **TYPICAL SECTION &** SUMMARY OF QUANTITIES

- M-6.18 DEPRESSED CURB

THROUGH DRIVEWAYS

3" SURFACE COURSE, MIX C, N50 (APPLY IN 2 LIFTS).

- APPLY TACK COAT (0.025 LB/SF) PRIOR TO PAVING

SECOND LIFT UNLESS PAVING IS SAME DAY

GRADE AND SHAPE EXISTING AGGREGATE BASE

OR INSTALL NEW 10" BASE AS REQUIRED

EXISTING 2" HMA SURFACE -

EXISTING 10" STONE BASE —

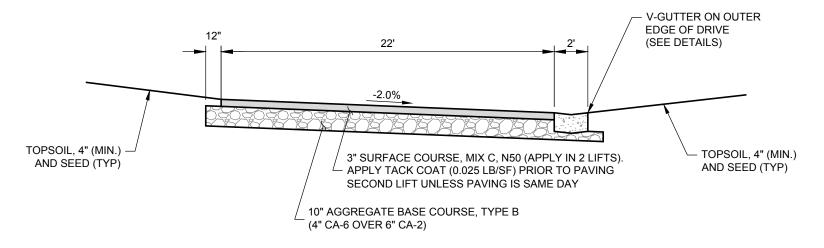
TYPICAL SECTION - CLEARWING LANE PATCH

- TOPSOIL, 4" (MIN.)

AND SEED (TYP)

DR	AWN	1	MJH
СН	ECKED	,	JSL
PM			JSL

PROJECT NUMBER SHEET NUMBER 24146 C02



TYPICAL SECTION - PRIVATE DRIVE



ARC DESIGN
RESOURCES INC.

| 5291 ZENITH PARKWAY | LOVES PARK, IL 61111 | VOICE: (815) 484-4300 | FAX: (815) 484-4303 | www.arcdesign.com | Illinois Design Firm License No. 184-001334

PROJECT NAME OWNER'S NAME

## CLEARWING LOT A PUD

10311 CLEARWING LN ROSCOE, IL 61073 WINNEBAGO COUNTY

WHITE OAK TRUST 747 GLEASMAN ROAD ROSCOE, IL 61073

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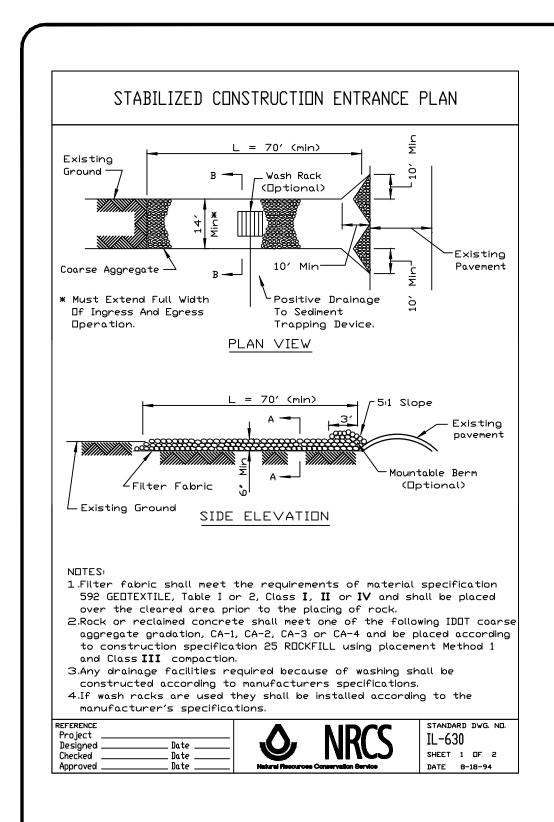
SWPPP SITE MAP

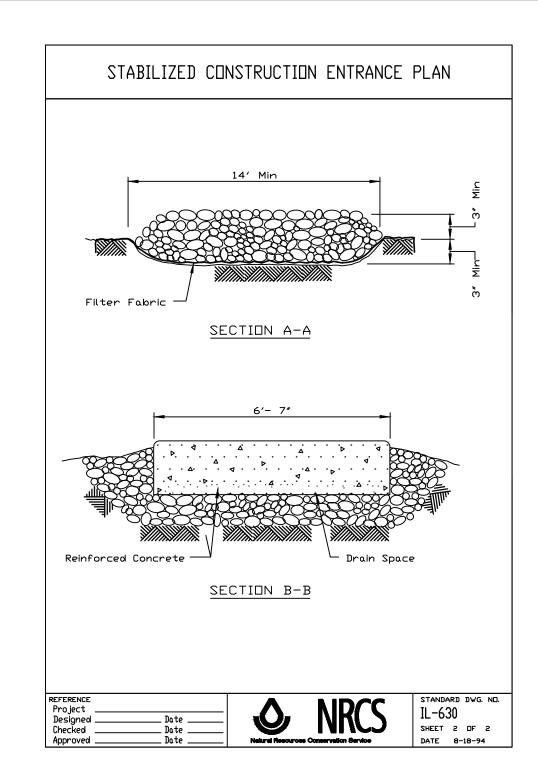
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PM	JSL

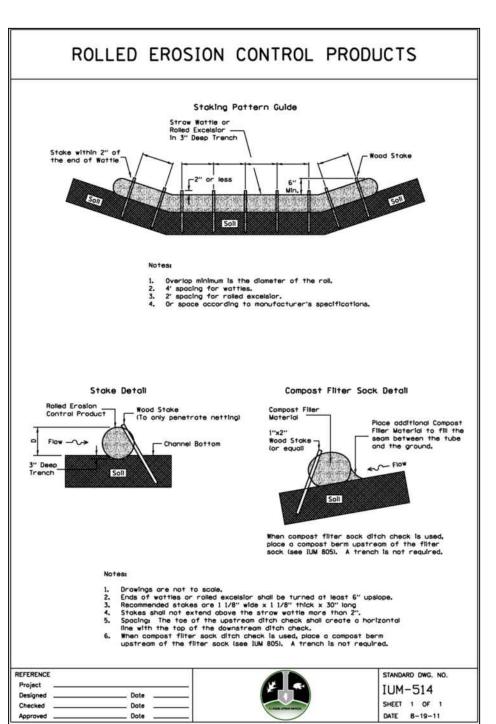
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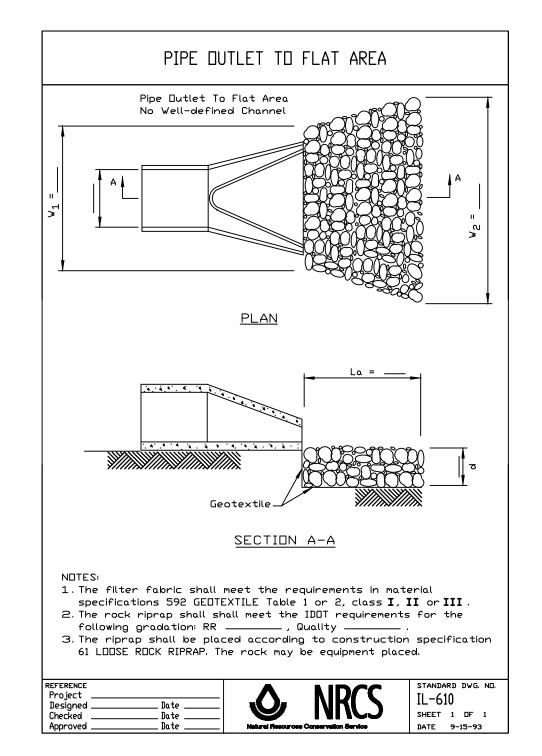
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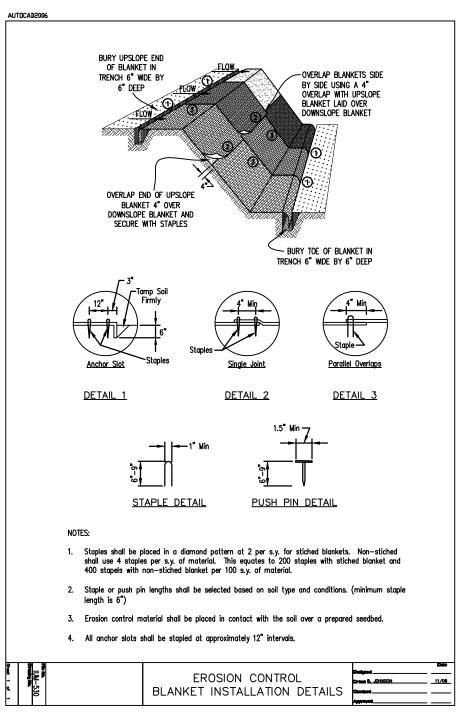
C03

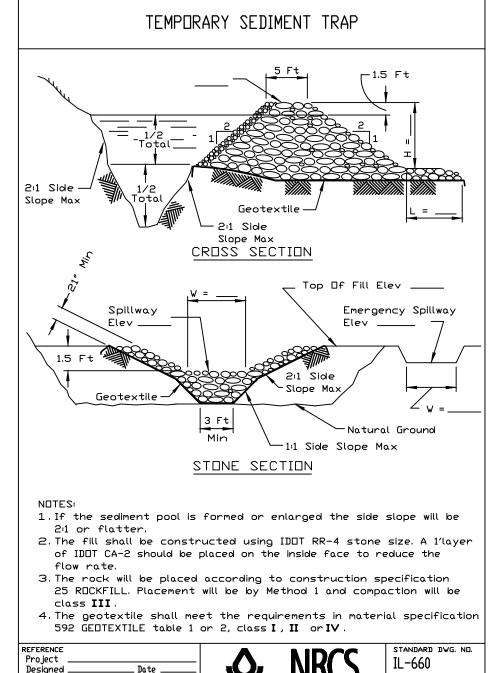




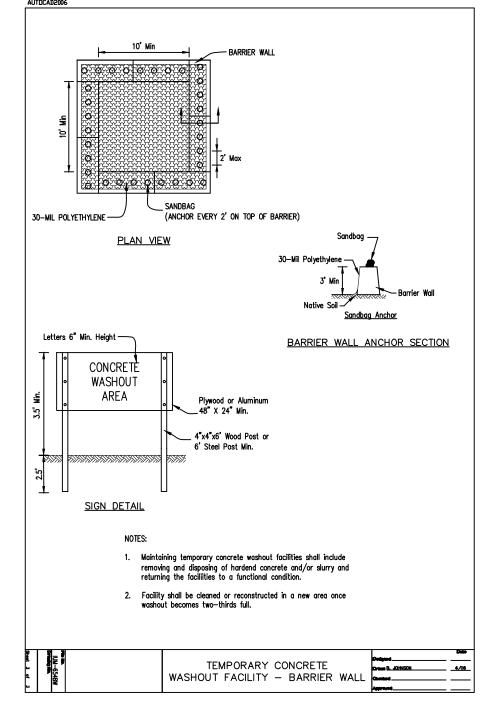


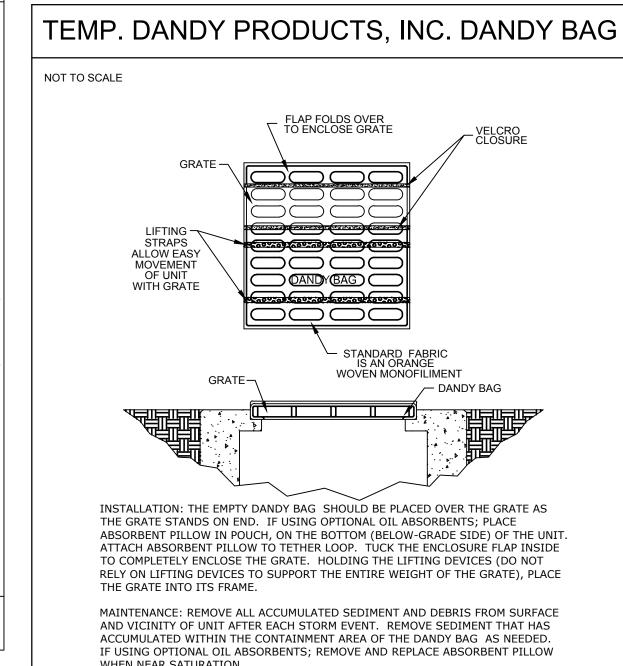


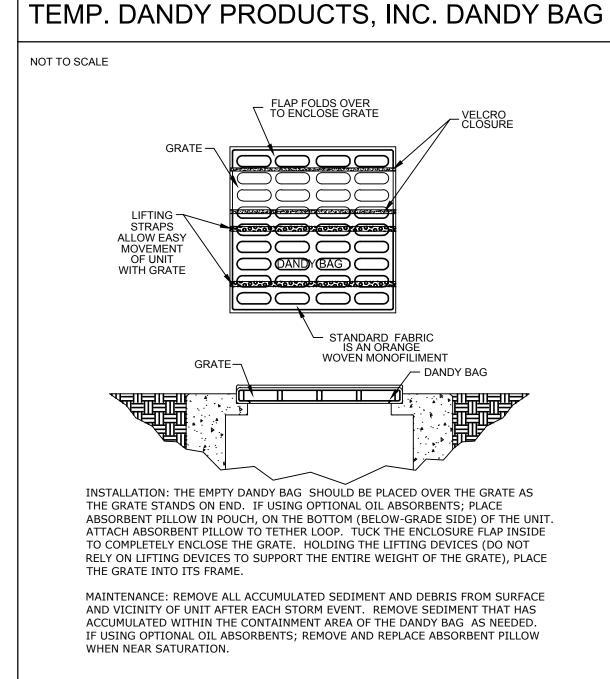


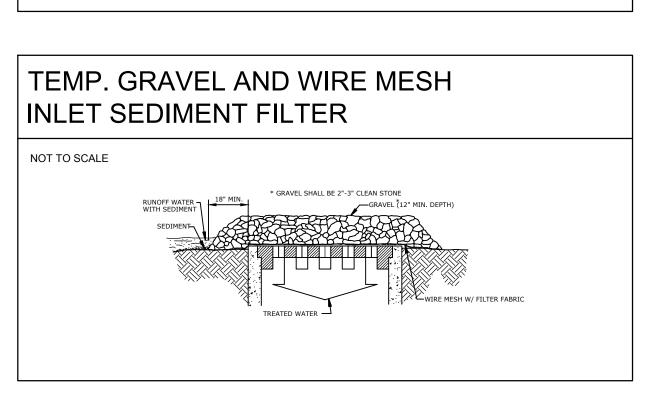


SHEET 1 DF 1



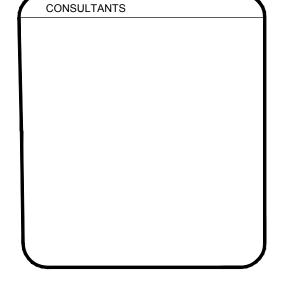






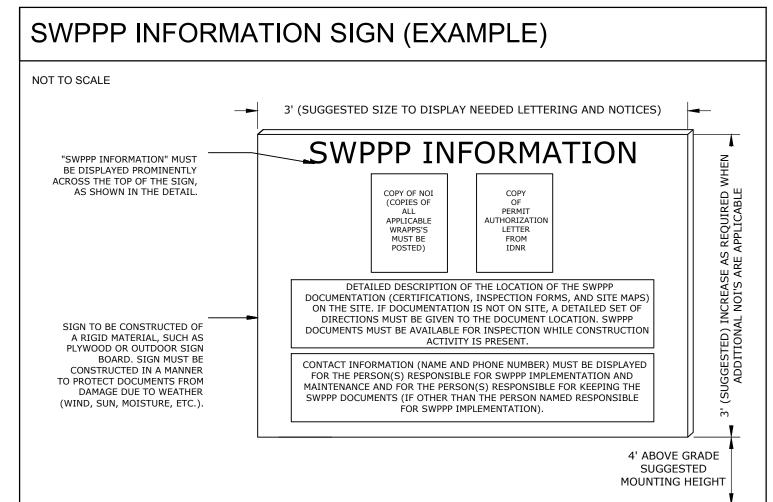


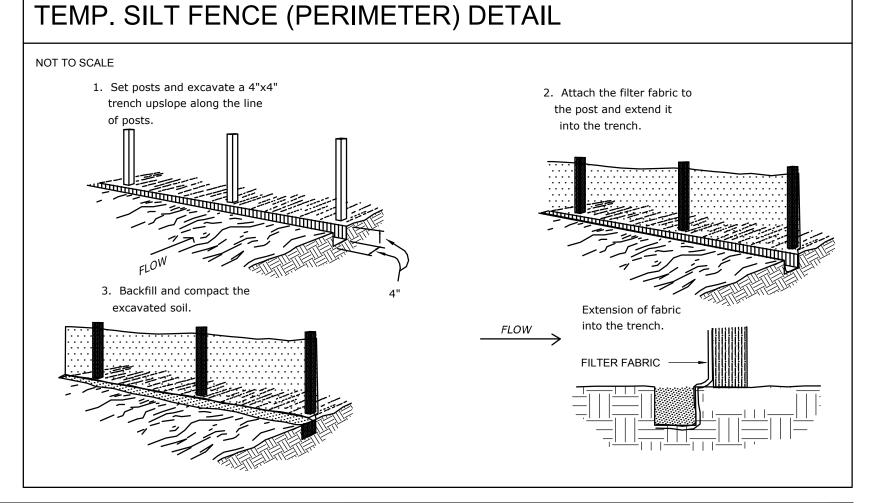
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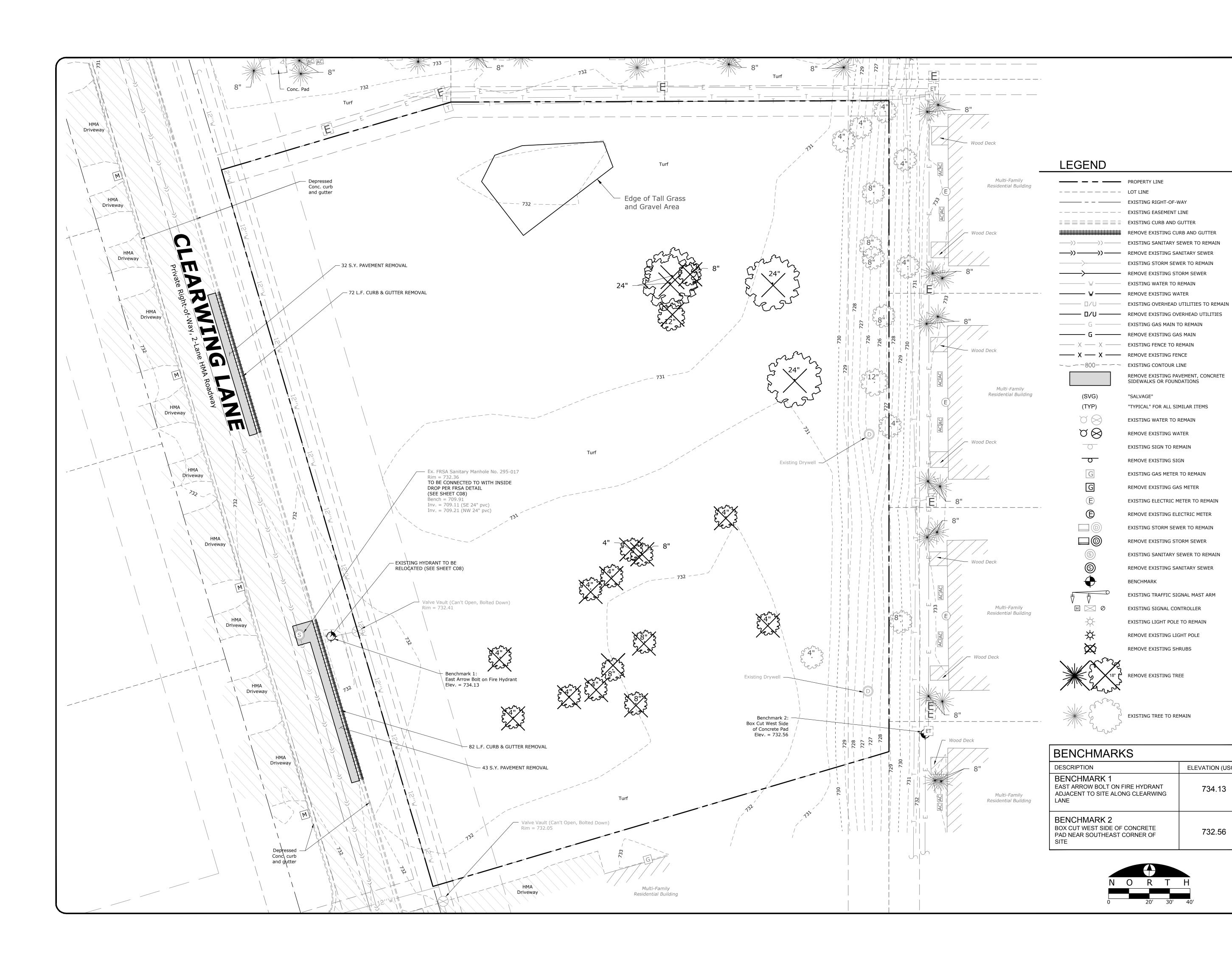


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SHEET TITLE SWPPP DETAILS









OWNER'S NAME CLEARWING LOT A PUD 10311 CLEARWING LN

ROSCOE, IL 61073

747 GLEASMAN ROAD

ROSCOE, IL 61073

PROJECT NAME

WINNEBAGO COUNTY WHITE OAK TRUST

CONSULTANTS

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SHEET TITLE **EXISTING CONDITIONS &** REMOVALS PLAN

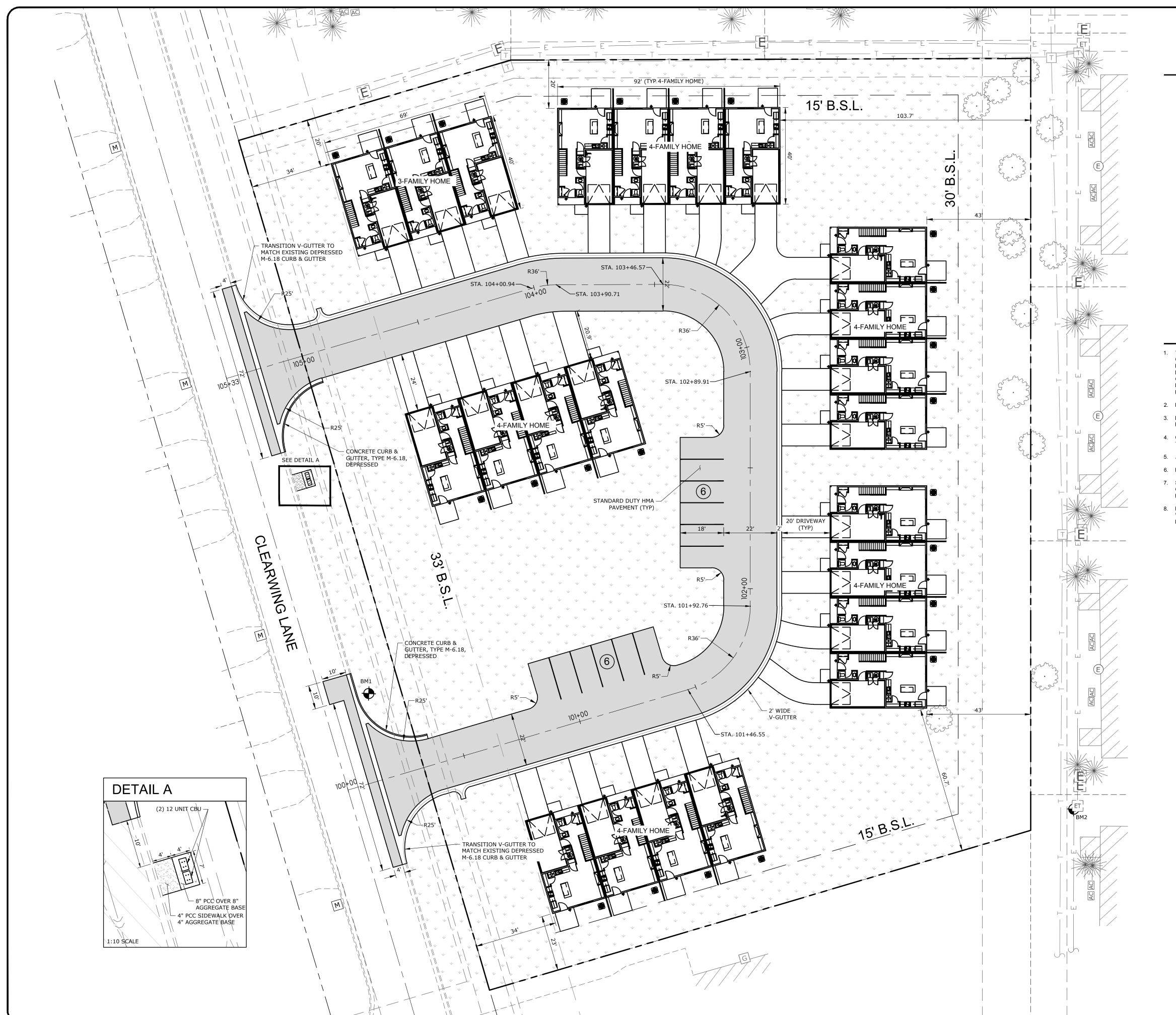
**ELEVATION (USGS)** 

734.13

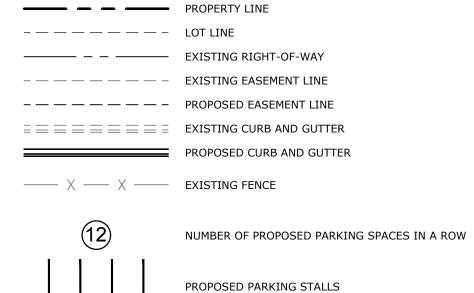
732.56

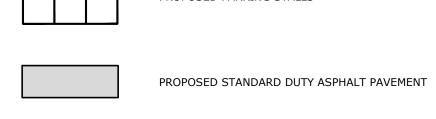
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PM	JSL

PROJECT NUMBER SHEET NUMBER	
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C05	



#### LEGEND





PROPOSED TURF AREA
(4" TOPSOIL (MIN.) AND IDOT CLASS 1A SEED MIX)

#### LAYOUT NOTES

- 1. THE CONTRACTOR SHALL FIELD VERIFY THE ELEVATIONS OF THE BENCHMARKS PRIOR TO COMMENCING WORK. THE CONTRACTOR SHALL ALSO FIELD VERIFY LOCATION AND ELEVATION OF EXISTING PIPE INVERTS, FLOOR ELEVATIONS, CURB OR PAVEMENT WHERE MATCHING INTO EXISTING WORK. THE CONTRACTOR SHALL FIELD VERIFY HORIZONTAL CONTROL BY REFERENCING SHOWN COORDINATES TO KNOWN PROPERTY LINES. NOTIFY ENGINEER OF DISCREPANCIES IN EITHER VERTICAL OR HORIZONTAL CONTROL PRIOR TO PROCEEDING WITH WORK.
- 2. REFER TO ARCHITECTURAL PLANS FOR EXACT BUILDING DIMENSIONS.
- 3. DIMENSIONS THAT LOCATE THE BUILDING ARE MEASURED TO THE OUTSIDE FACE OF THE
- 4. COORDINATE WORK WITHIN CLEARWING LANE ROW WITH THE VILLAGE OF ROSCOE. TRAFFIC CONTROL SHALL CONFORM TO IDOT STANDARDS FOR WORK WITHIN THE R.O.W.
- 5. ALL RADII ARE DIMENSIONED TO THE EDGE OF PAVEMENT.
- 6. REFER TO THE DETAIL SHEETS FOR V-GUTTER AND FLUME DETAILS.
- 7. SOME FIELD ADJUSTMENTS MAY BE NECESSARY AT POINTS WHERE PROPOSED PAVEMENT, CURB AND SIDEWALKS MEET EXISTING PAVEMENT, CURB AND SIDEWALKS. REVIEW ANY REQUIRED CHANGES WITH ENGINEER PRIOR TO CONSTRUCTION OF WORK.
- 8. FOR REQUIRED PAVEMENT REMOVAL ADJACENT TO THE CURB AND GUTTER REMOVAL WITHIN RIGHT OF WAY, A FULL DEPTH SAWCUT SHALL BE UTILIZED AND SHALL NOT BE LESS THAN 2' IN WIDTH.

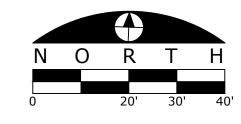
BENCHMARKS	
DESCRIPTION	ELEVATION (USGS)
BENCHMARK 1 EAST ARROW BOLT ON FIRE HYDRANT ADJACENT TO SITE ALONG CLEARWING LANE	734.13
BENCHMARK 2 BOX CUT WEST SIDE OF CONCRETE PAD NEAR SOUTHEAST CORNER OF SITE	732.56

BENCHMARKS ESTABLISHED FROM WINGIS MONUMENTATION: WINGIS STATION # 38 WIN 18.1N-7.1E, ELEVATION = 734.185

(1) 3-FAMILY HOME (5) 4-FAMILY HOMES

23 TOTAL UNITS

PARKING REQUIREMENT: 2.5 STALLS PER UNIT 2.5 \* 23 UNITS = 58 STALLS GARAGE STALLS = 23 DRIVEWAY STALLS = 23 ADDITIONAL STALLS = 12 TOTAL STALLS = 58





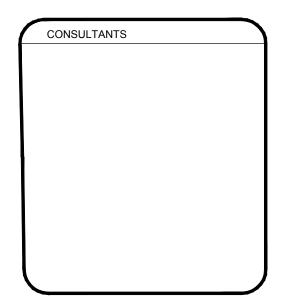
OWNER'S NAME

PROJECT NAME

## CLEARWING LOT A PUD

10311 CLEARWING LN ROSCOE, IL 61073 WINNEBAGO COUNTY

WHITE OAK TRUST 747 GLEASMAN ROAD ROSCOE, IL 61073



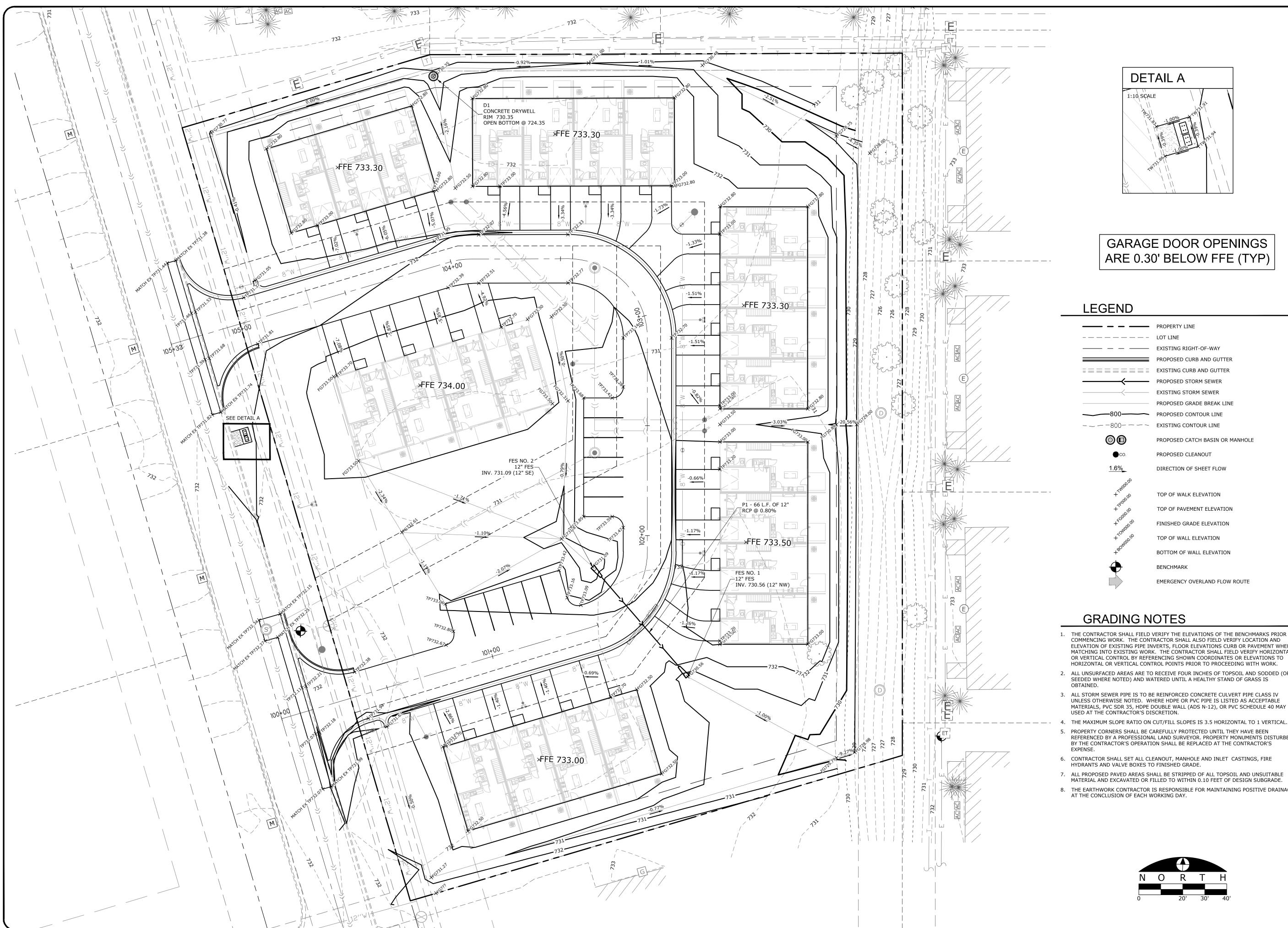
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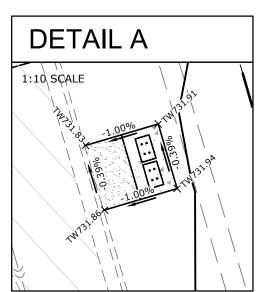
LAYOUT PLAN

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CHECKED JSL

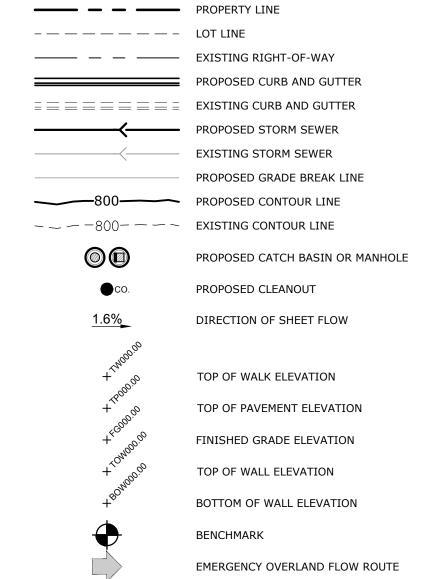
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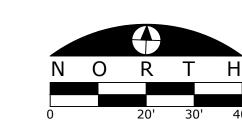
GARAGE DOOR OPENINGS ARE 0.30' BELOW FFE (TYP)

## LEGEND



## **GRADING NOTES**

- 1. THE CONTRACTOR SHALL FIELD VERIFY THE ELEVATIONS OF THE BENCHMARKS PRIOR TO COMMENCING WORK. THE CONTRACTOR SHALL ALSO FIELD VERIFY LOCATION AND ELEVATION OF EXISTING PIPE INVERTS, FLOOR ELEVATIONS CURB OR PAVEMENT WHERE MATCHING INTO EXISTING WORK. THE CONTRACTOR SHALL FIELD VERIFY HORIZONTAL OR VERTICAL CONTROL BY REFERENCING SHOWN COORDINATES OR ELEVATIONS TO HORIZONTAL OR VERTICAL CONTROL POINTS PRIOR TO PROCEEDING WITH WORK.
- 2. ALL UNSURFACED AREAS ARE TO RECEIVE FOUR INCHES OF TOPSOIL AND SODDED (OR SEEDED WHERE NOTED) AND WATERED UNTIL A HEALTHY STAND OF GRASS IS
- 3. ALL STORM SEWER PIPE IS TO BE REINFORCED CONCRETE CULVERT PIPE CLASS IV UNLESS OTHERWISE NOTED. WHERE HDPE OR PVC PIPE IS LISTED AS ACCEPTABLE MATERIALS, PVC SDR 35, HDPE DOUBLE WALL (ADS N-12), OR PVC SCHEDULE 40 MAY BE USED AT THE CONTRACTOR'S DISCRETION.
- 5. PROPERTY CORNERS SHALL BE CAREFULLY PROTECTED UNTIL THEY HAVE BEEN
- REFERENCED BY A PROFESSIONAL LAND SURVEYOR. PROPERTY MONUMENTS DISTURBED BY THE CONTRACTOR'S OPERATION SHALL BE REPLACED AT THE CONTRACTOR'S
- 6. CONTRACTOR SHALL SET ALL CLEANOUT, MANHOLE AND INLET CASTINGS, FIRE HYDRANTS AND VALVE BOXES TO FINISHED GRADE.
- 7. ALL PROPOSED PAVED AREAS SHALL BE STRIPPED OF ALL TOPSOIL AND UNSUITABLE MATERIAL AND EXCAVATED OR FILLED TO WITHIN 0.10 FEET OF DESIGN SUBGRADE.
- 8. THE EARTHWORK CONTRACTOR IS RESPONSIBLE FOR MAINTAINING POSITIVE DRAINAGE AT THE CONCLUSION OF EACH WORKING DAY.



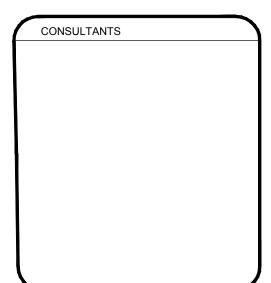


PROJECT NAME OWNER'S NAME

## CLEARWING LOT A PUD

10311 CLEARWING LN ROSCOE, IL 61073 WINNEBAGO COUNTY

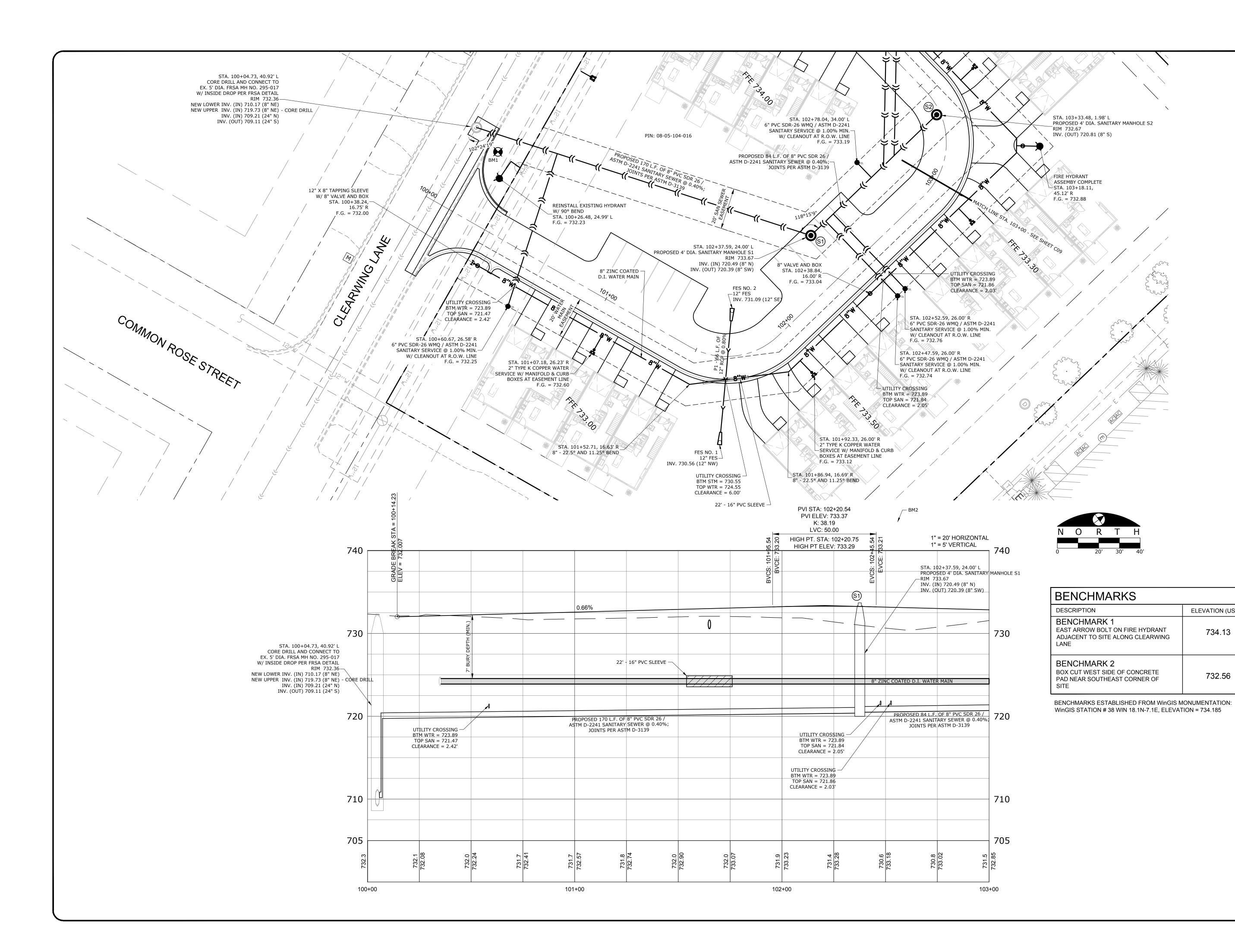
WHITE OAK TRUST 747 GLEASMAN ROAD ROSCOE, IL 61073



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SHEET TITLE **GRADING PLAN** 

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CHECKED	JSL
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PROJECT NAME OWNER'S NAME

### **CLEARWING** LOT A PUD

10311 CLEARWING LN ROSCOE, IL 61073 WINNEBAGO COUNTY

WHITE OAK TRUST 747 GLEASMAN ROAD ROSCOE, IL 61073

CONSULTANTS

ISSUED FOR	
	DATE
1. OWNER REVIEW	11-14-2024
2. AGENCY APPROVAL	01-14-2025
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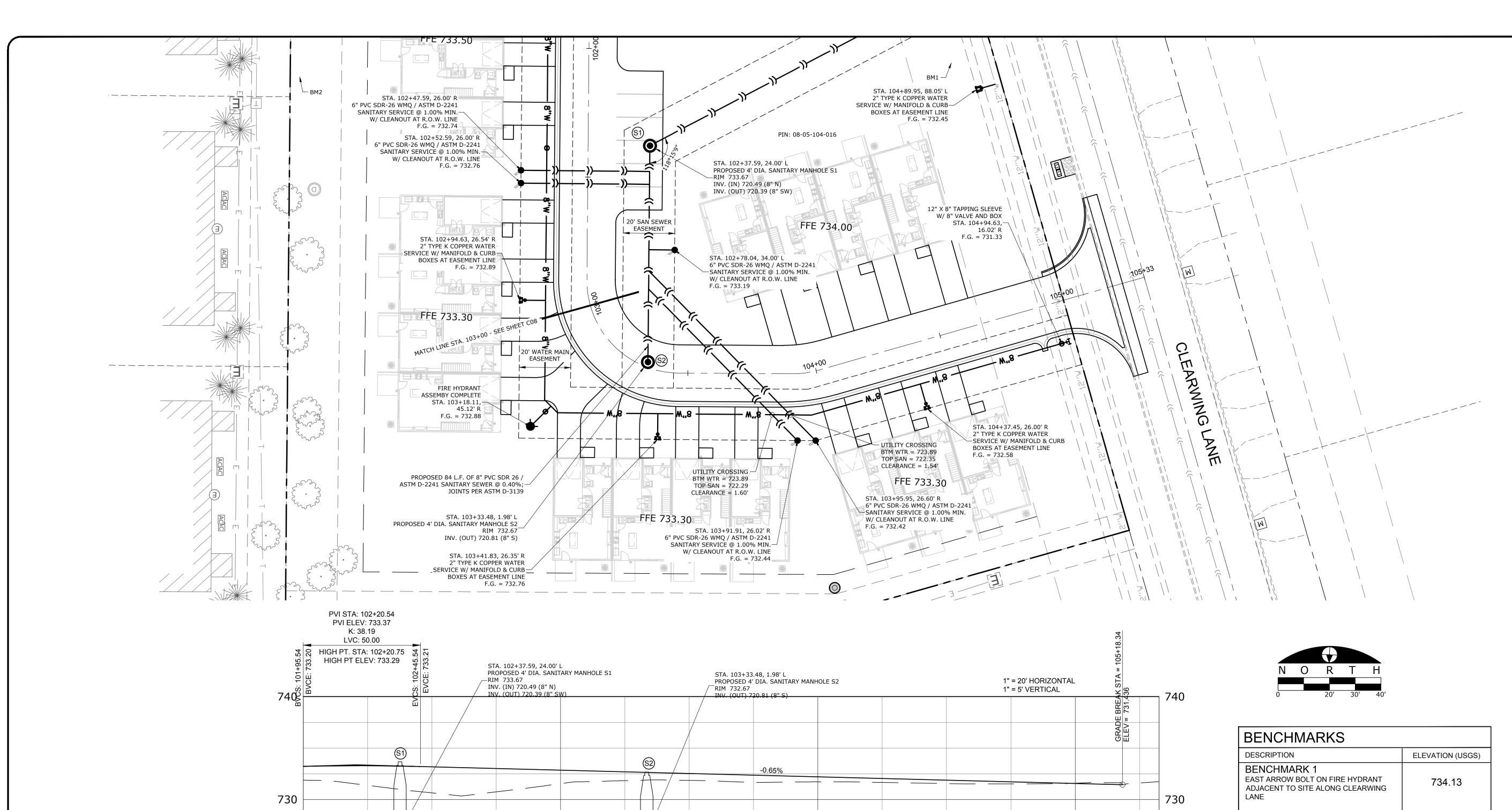
**ELEVATION (USGS)** 

734.13

732.56

SHEET TITLE PRIVATE DRIVE PLAN & PROFILE STA. 100+00 TO 103+00

DRAWN	MJH
CHECKED	JSL
PM	JSL



- UTILITY CROSSING BTM WTR = 723.89

TOP SAN = 722.35

CLEARANCE = 1.54'

104+00

UTILITY CROSSING BTM WTR = 723.89TOP SAN = 722.29 CLEARANCE = 1.60'

720

710

102+00

PROPOSED 170 L.F. OF 8" PVC SDR 26 / —ASTM D-2241 SANITARY SEWER @ 0.40%;

JOINTS PER ASTM D-3139

PROPOSED 84 L.F. OF 8" PVC SDR 26 /

JOINTS PER ASTM D-3139

103+00

STM D-2241 SANITARY SEWER @ 0.40%;

BENCHMARKS	
DESCRIPTION	ELEVATION (USGS)
BENCHMARK 1 EAST ARROW BOLT ON FIRE HYDRANT ADJACENT TO SITE ALONG CLEARWING LANE	734.13
BENCHMARK 2 BOX CUT WEST SIDE OF CONCRETE PAD NEAR SOUTHEAST CORNER OF SITE	732.56

BENCHMARKS ESTABLISHED FROM WINGIS MONUMENTATION: WinGIS STATION # 38 WIN 18.1N-7.1E, ELEVATION = 734.185

720

105+32.56

105+00

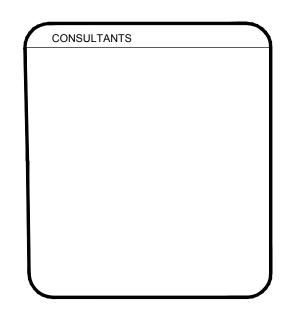
ARC	DESIGN RESOURCES INC.
	5291 ZENITH PARKWAY   LOVES PARK, IL 61111   VOICE: (815) 484-4300   FAX: (815) 484-4303
	www.arcdesign.com In Firm License No. 184-001334   

PROJECT NAME OWNER'S NAME

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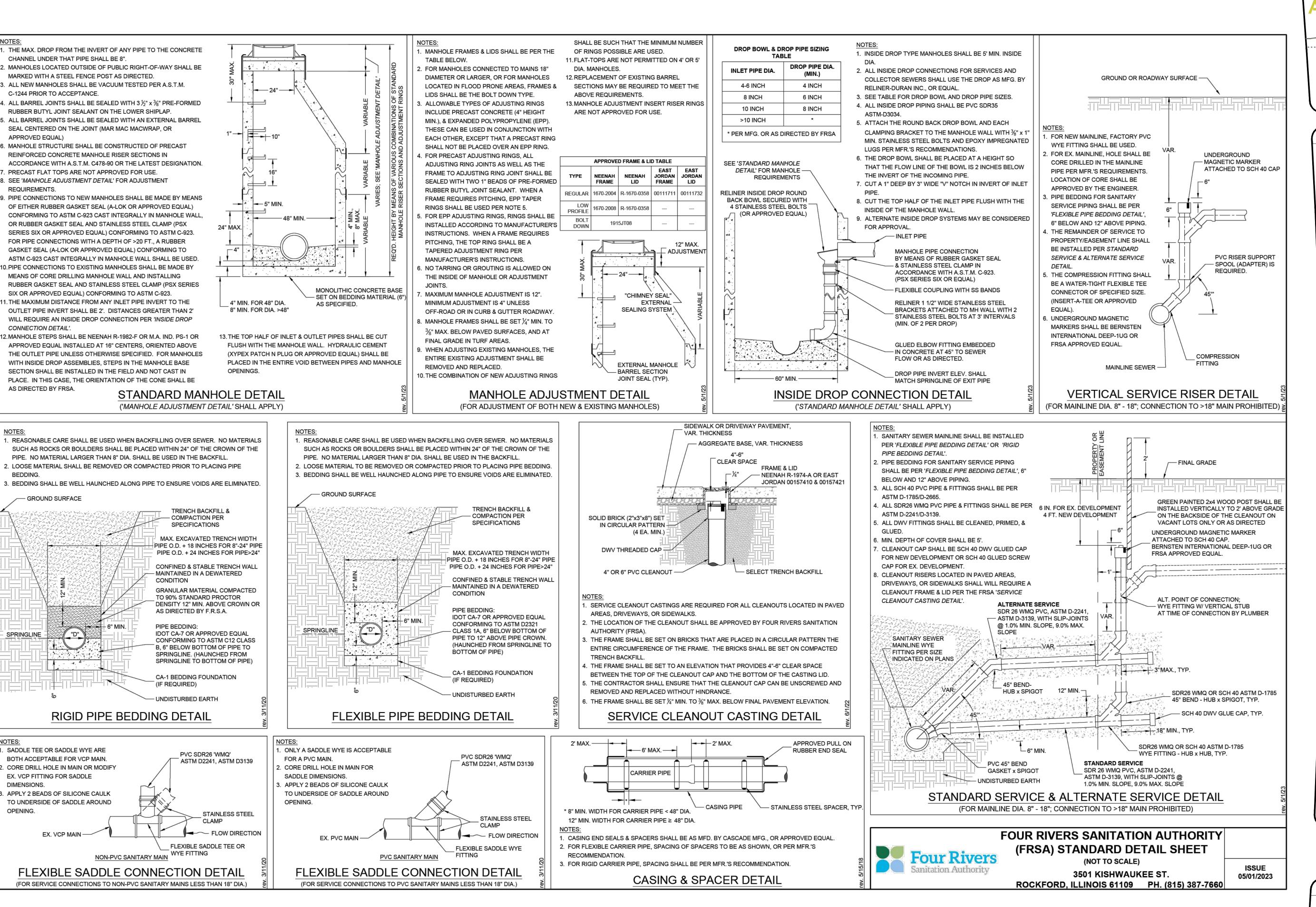


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SHEET TITLE PRIVATE DRIVE PLAN & PROFILE STA. 103+00 TO 105+33

DRAWN	MJH
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PROJECT NUMBER SHEET NUMBER	
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C09	



ARC DESIGN
RESOURCES INC.

| 5291 ZENITH PARKWAY | LOVES PARK, IL 61111 | VOICE: (815) 484-4300 | FAX: (815) 484-4303 | www.arcdesign.com | Illinois Design Firm License No. 184-001334 |

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CLEARWING
LOT A PUD

10311 CLEARWING LN
ROSCOE, IL 61073
WINNEBAGO COUNTY

WHITE OAK TRUST 747 GLEASMAN ROAD ROSCOE, IL 61073 ---

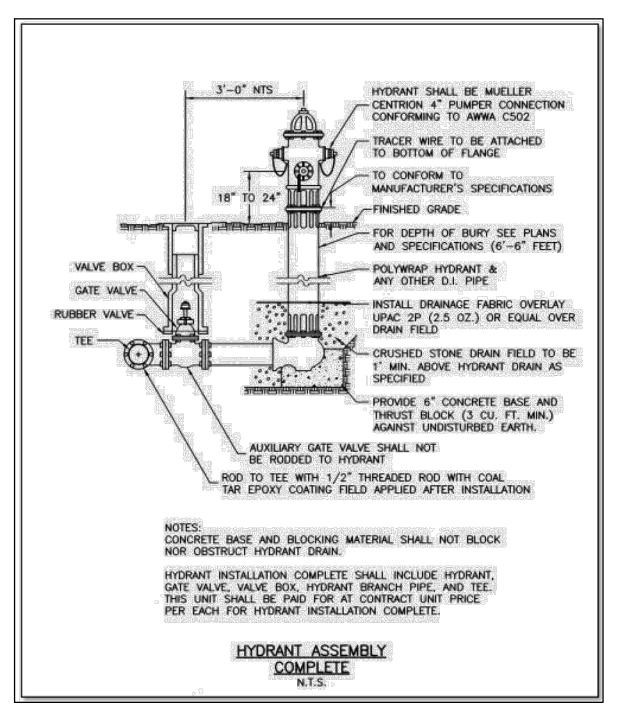
CONSULTANTS

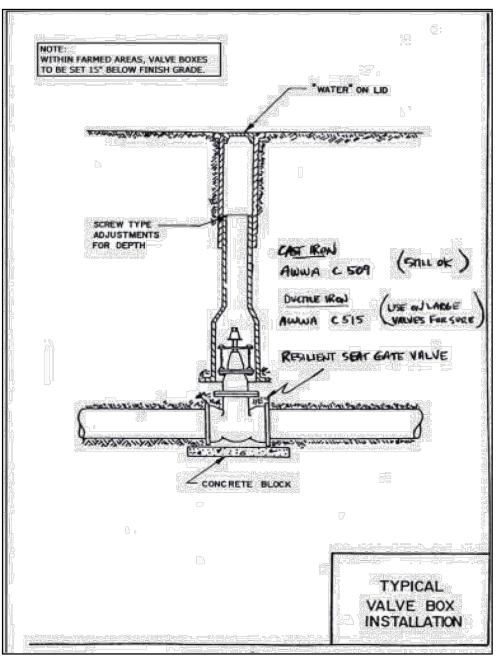
FRSA STANDARD DETAILS

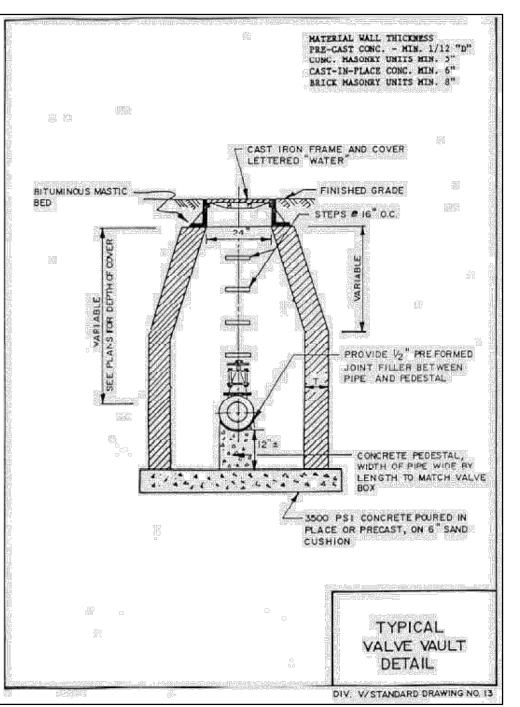
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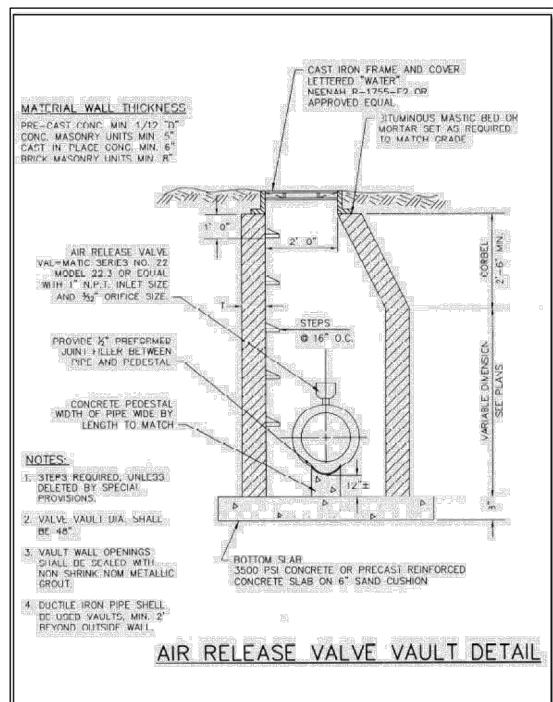
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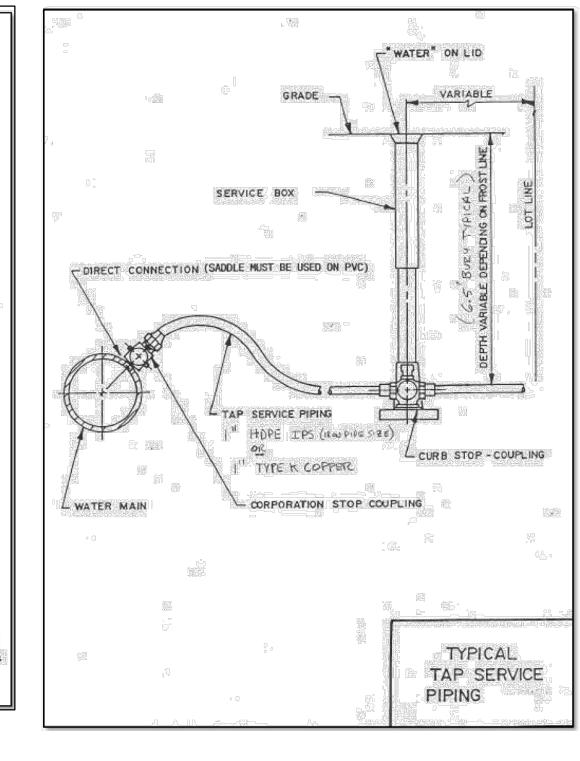
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CLEARWING LOT A PUD

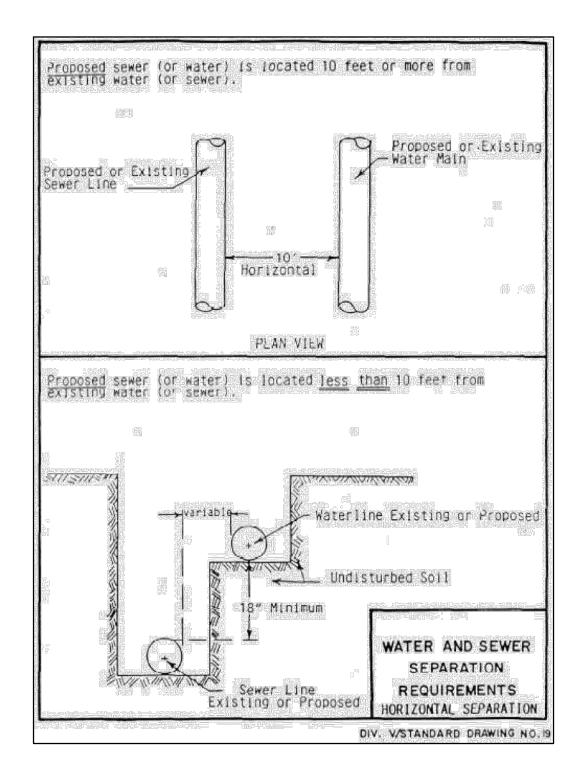
PROJECT NAME

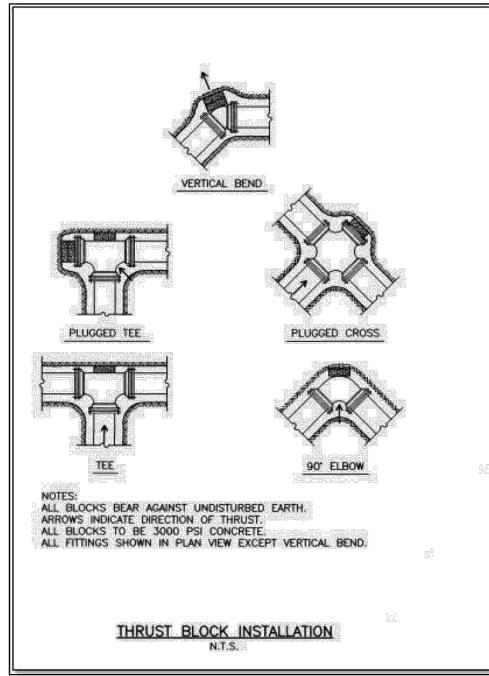
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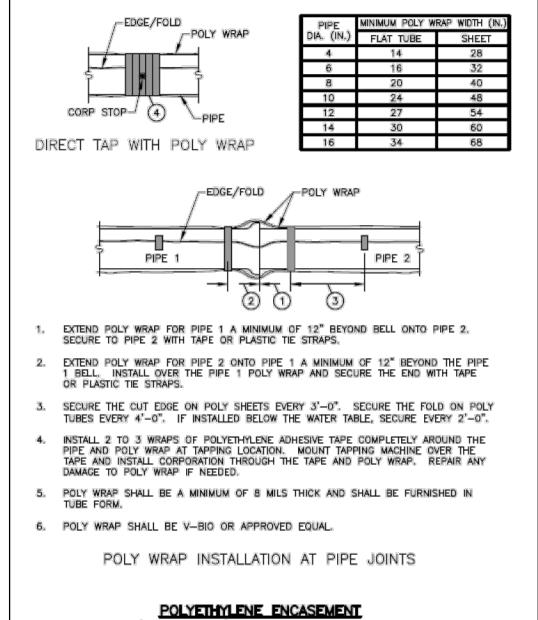
10311 CLEARWING LN ROSCOE, IL 61073 WINNEBAGO COUNTY

WHITE OAK TRUST 747 GLEASMAN ROAD ROSCOE, IL 61073

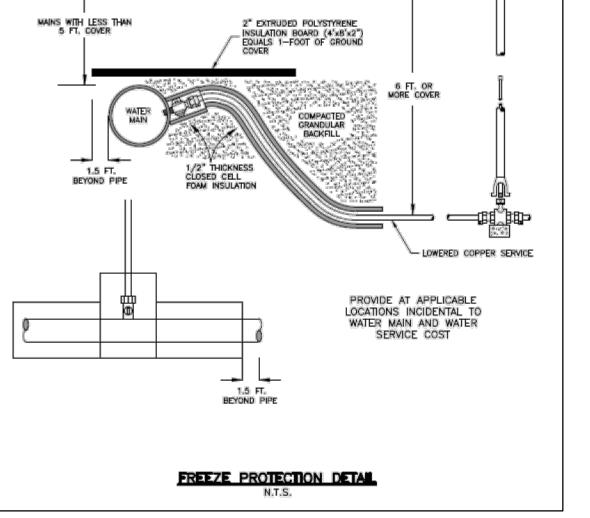
CONSULTANTS

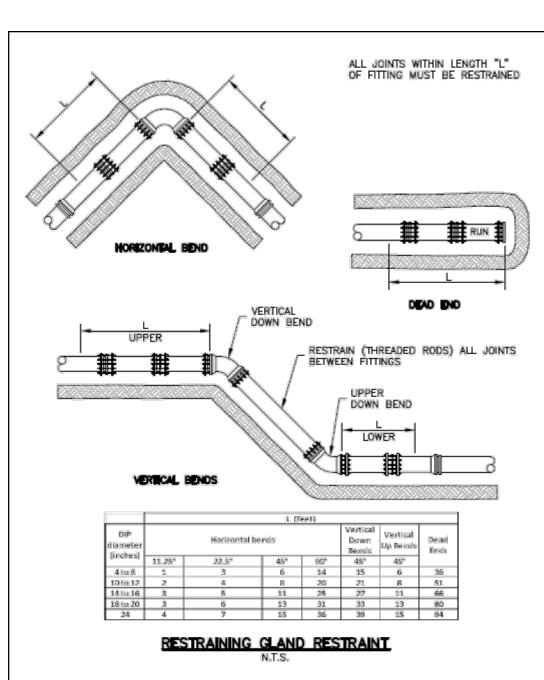






(POLY WRAP) INSTALLATION DETAIL

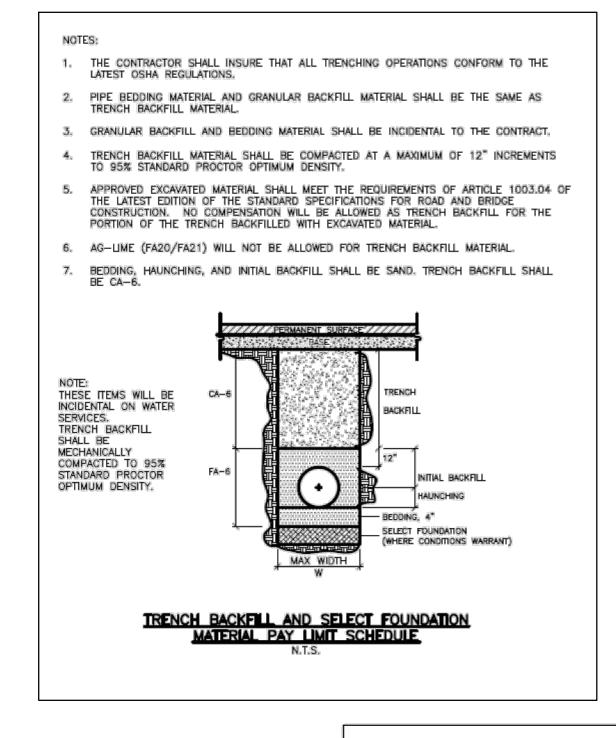


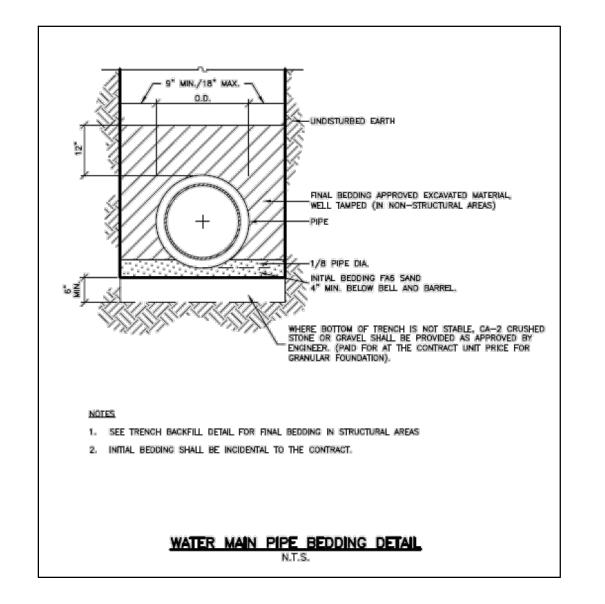


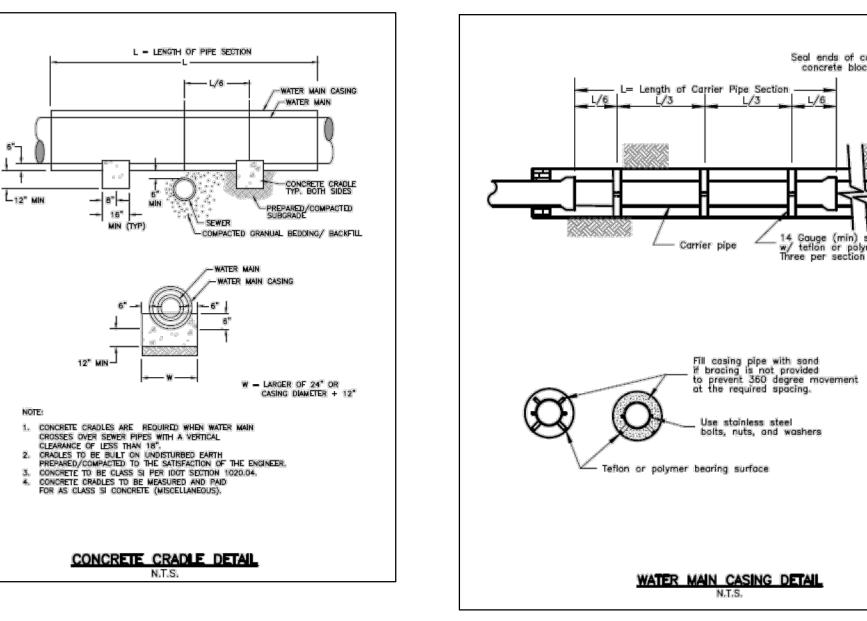
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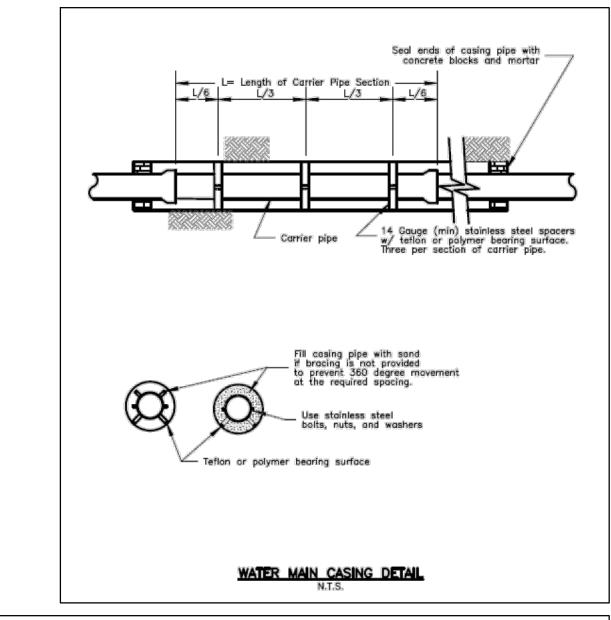


Unit 1

Water Main

WATER SERVICE MANIFOLD DETAIL

Unit 2



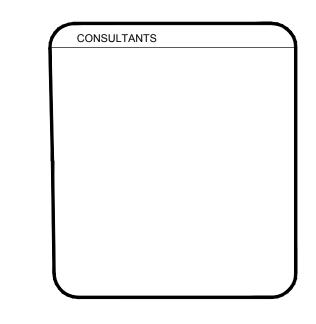
Unit 3

Manifold

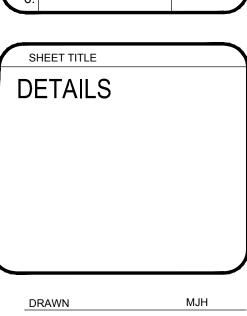
Unit 4

EASEMENT LINE

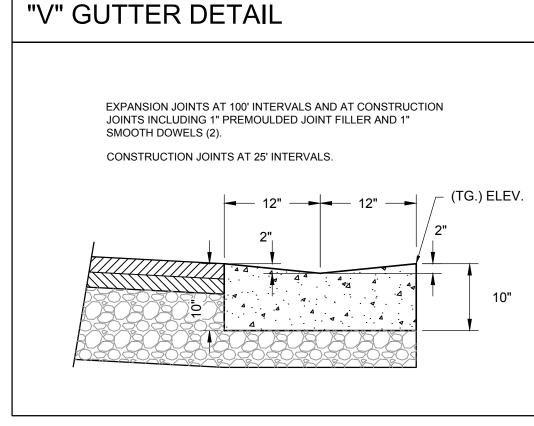


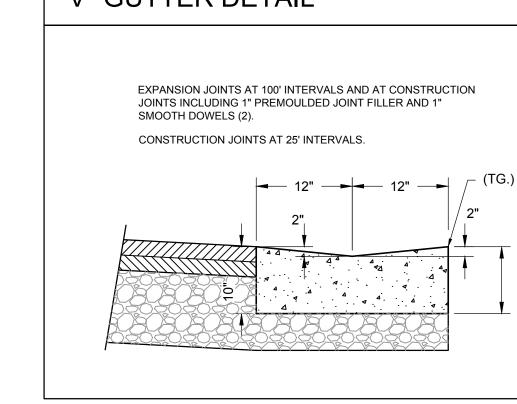


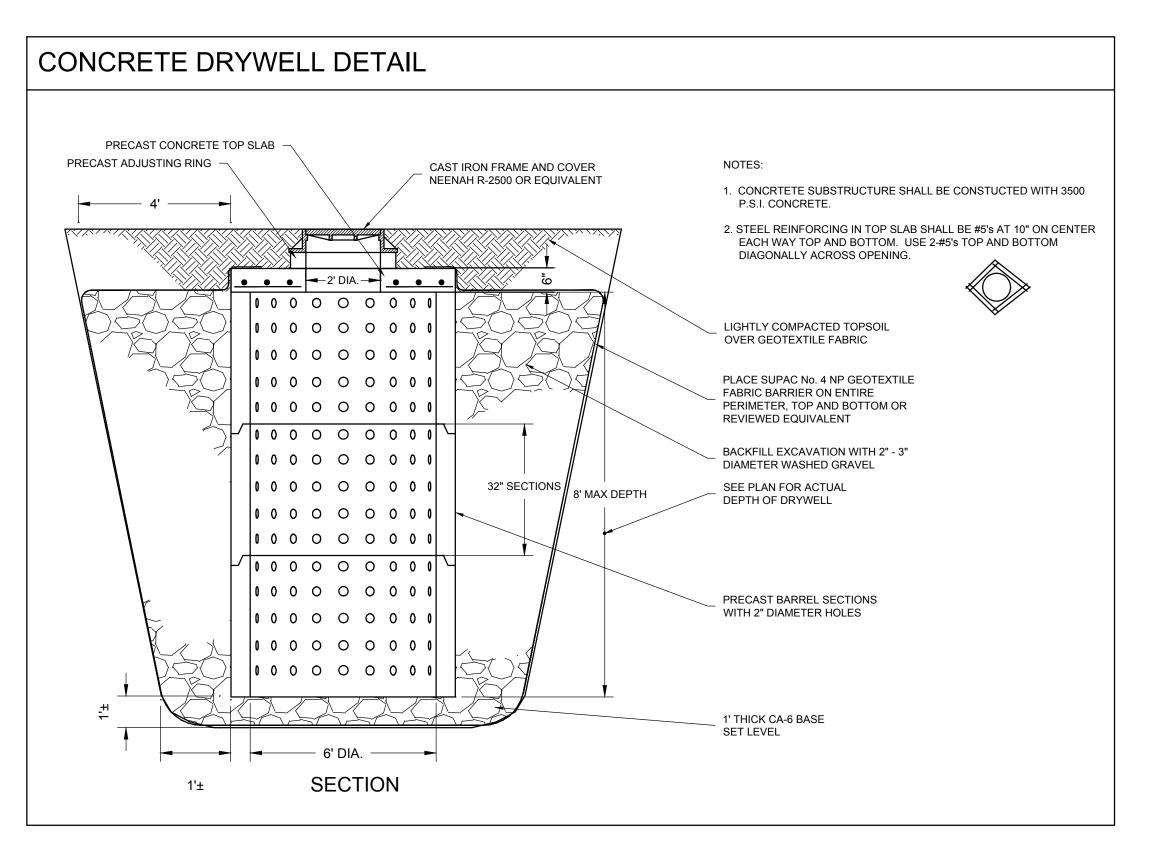
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PM	JSL
PROJECT NUMBER	
SHEET NUMBER	
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NORTH PARK PUBLIC WATER DISTRICT

METER INSTALLATION REQUIREMENTS

bury

Cum Stop

Corporation Stop

Small service connection with the

basement

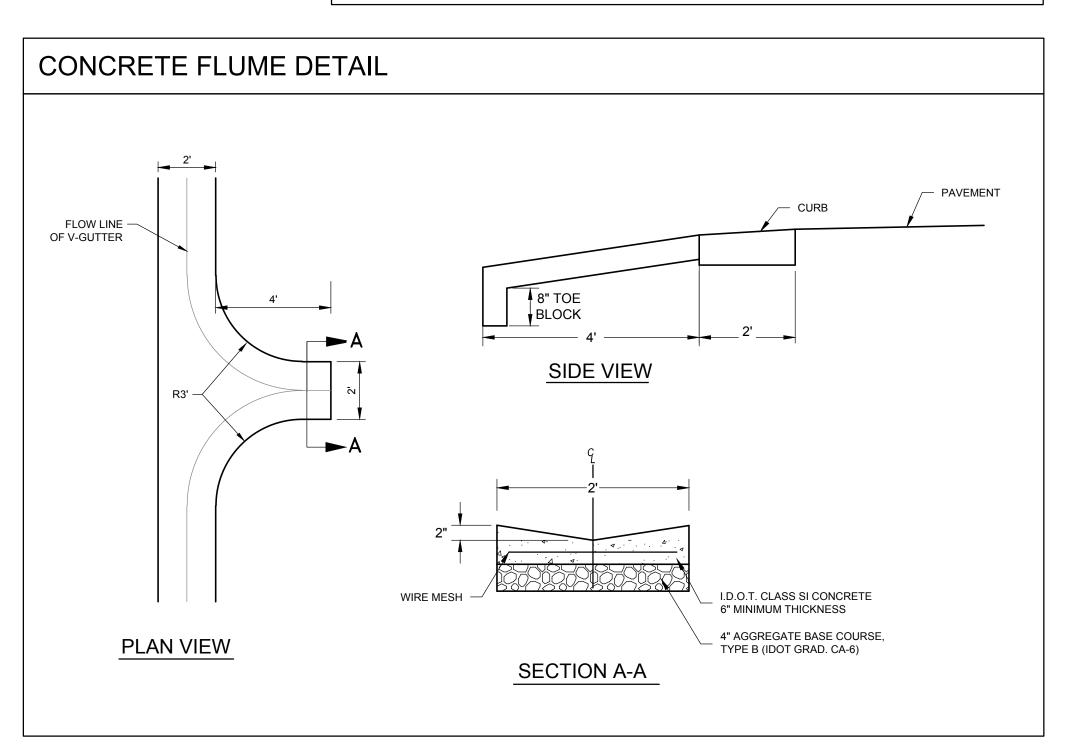
Lot line

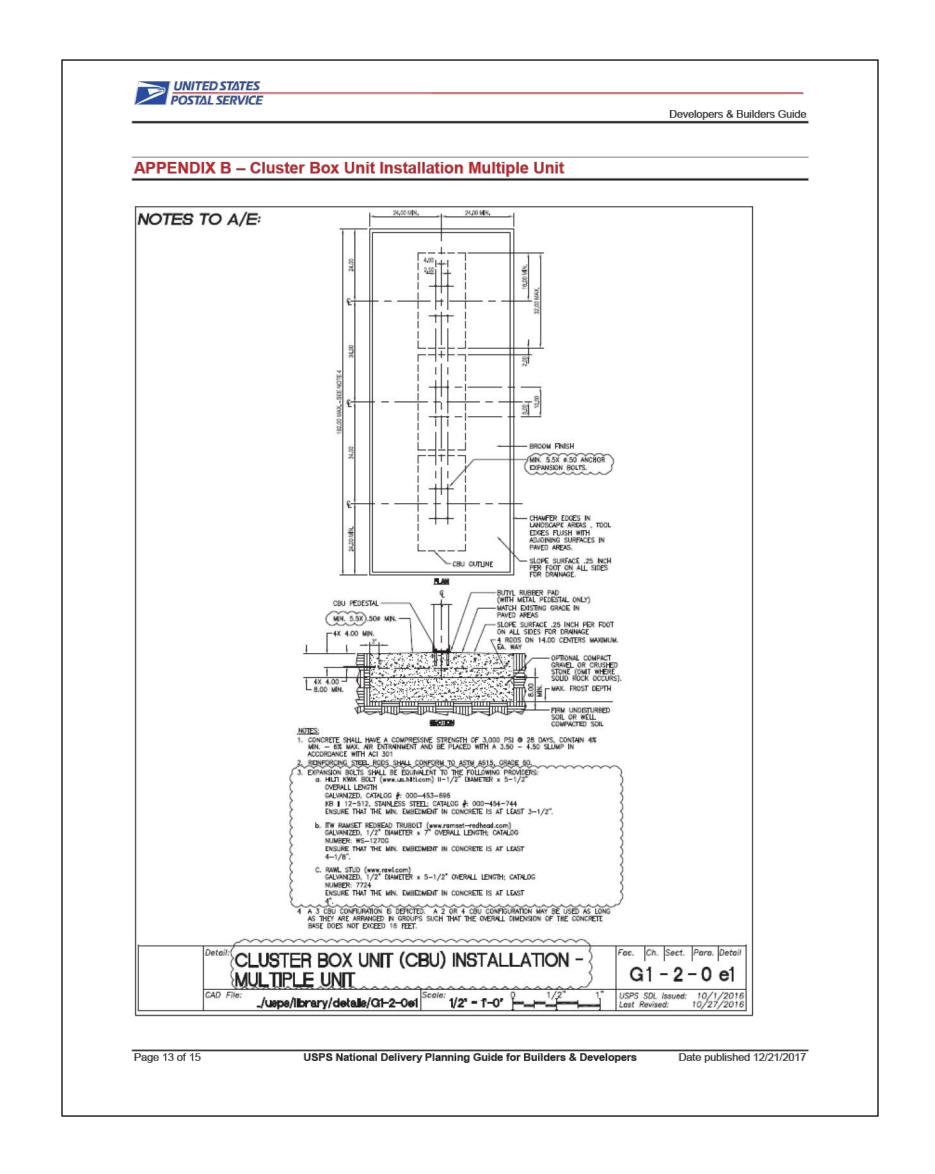
Foundation or Footing

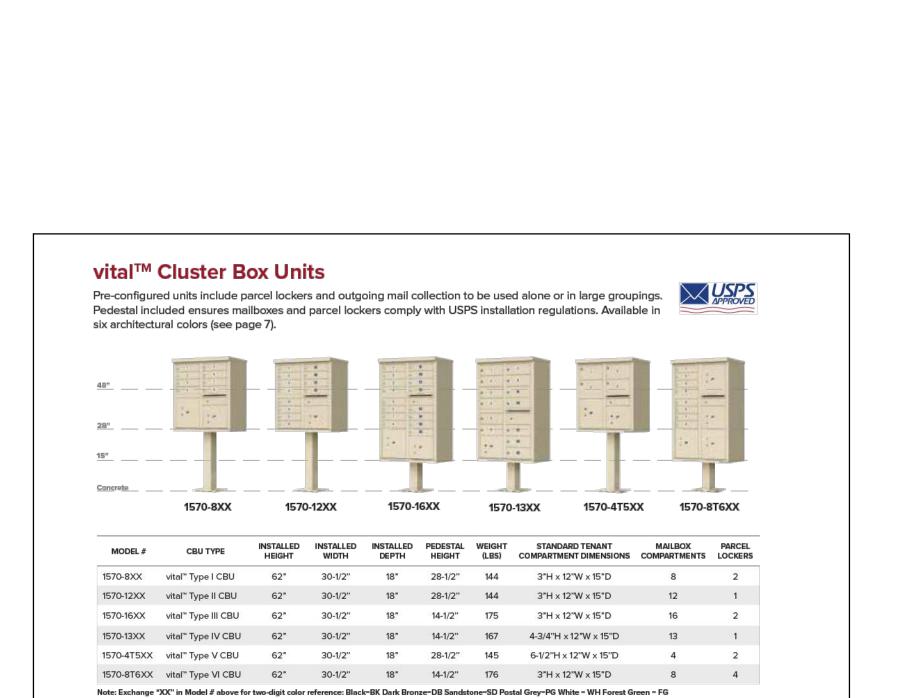
Shutoff Meter Value /

Basement of Customer's

(Closest







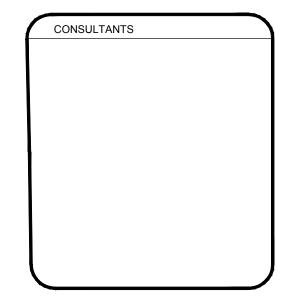


PROJECT NAME OWNER'S NAME

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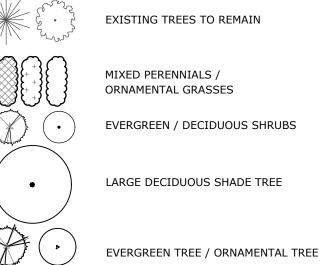


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DETAILS

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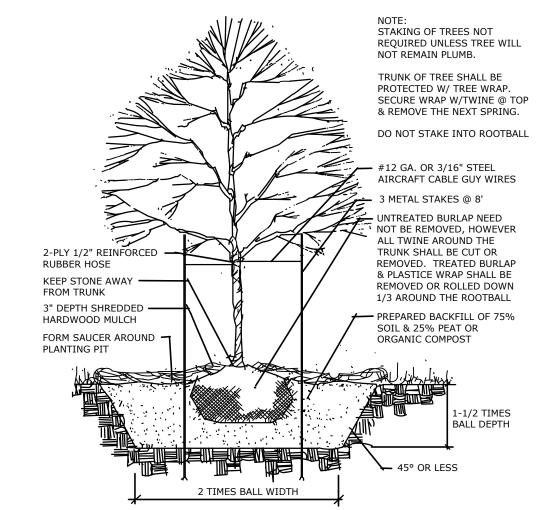


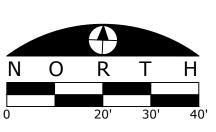


## FOR UNIT PLANTING DETAILS SEE SHEET L02

## PLANT LIST - SITE TREES

KEY	QTY	Botanical name COMMON NAME	SIZE	REMARKS
AAB	3	Acer freemanii 'Autumn Blaze' AUTUMN BLAZE MAPLE	2.5"	HYBRID RED MAPLE SHADE TREE
AC	4	Abies concolor WHITE FIR	6'	EVERGREEN
BN	6	Betula nigra 'Heritage' RIVER BIRCH	7'	MULITSTEM
GTS	2	Gleditsia triacanthos 'Skyline' SKYLINE HONEYLOCUST	2.5"	SHADE TREE
MCA	2	Malus x 'Adirondack' ADIRONDACK CRABAPPLE	7'	MULTISTEM, UPRIGHT ORNAMENTAL
МСР	2	Malus x 'Prairie Fire' PRAIRIE FIRE CRABAPPLE	7'	MULTISTEM, UPRIGHT ORNAMENTAL
PGD	5	Picea glauca x densata BLACK HILLS SPRUCE	6'	EVERGREEN
QB	3	Quercus bicolor SWAMP WHITE OAK	2.5"	LARGE SHADE TREE
QR	3	Quercus rubrum RED OAK	2.5"	LARGE SHADE TREE
SRT	2	Syringa reticulata JAPANESE TREE LILAC	7'	MULTISTEM ORNAMENTAL
POS	6	Physocarpus opulifolia 'Summer Wine' SUMMER WINE PHYSOCARPUS NINEBARK	5 GAL	DECIDUOUS SHRUB
SBG	12	Spiraea bumalda 'Goldflame' GOLDFLAME SPIRAEA	5 GAL	DECIDUOUS SHRUB
CFR	12	Calamagrostis acutifolia 'Karl Forster' KARL FORSTER FEATHER REED GRASS	2 GAL	ORNAMENTAL GRASS - 3' O.C.





NOT TO SCALE



CLEARWING LOT A PUD

OWNER'S NAME

10311 CLEARWING LN ROSCOE, IL 61073 WINNEBAGO COUNTY

WHITE OAK TRUST 747 GLEASMAN ROAD ROSCOE, IL 61073

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SHEET TITLE LANDSCAPE PLAN **OVERVIEW** 

DRAWN	MJH
CHECKED	JSL
PM	JSL

	PROJECT NUMBER	\
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	L01	
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#### PLANTING NOTES

- Contractor shall verify locations of all underground utilities prior to begining construction on his phase of work. Electric, gas, telephone, and cable television can be located by calling J.U.L.I.E. at '811'. For regional locating, contact "Digger's Hotline". Any damage or interruption of services shall be the responsibility of the contractor. Contractor to coordinate all related activities with other trades on the job and shall report any unacceptable job conditions to owner's representative prior to commencing work.
- 2. Contractor shall grade entire site to correct surface irregularities in preparation for sod/seed. Roto-til, disc, drag, harrow or hand rake sub grade in all lawn areas and remove construction debris, foreign matter or stones larger than 2". Grading shall provide slopes which are smooth, continuous, free from depressions or ridges. Level, rake and roll as necessary to an even and true condition and obtain positive drainage in all areas. Finish grades shall meet the approval of owner prior to lawn installation.
- 3. All disturbed areas should be brought to grade with "topsoil" to a depth of 6 inches in areas to be seeded or sodded, and 12 inches for all interior (curbed) landscape islands. All lawn areas are to be finished with mulch, straw mulch, seed, sod, etc. or as noted. All lawn areas to be watered until a healthy stand of grass is established. (see seed/sod notes for acceptance details).
- Quantity lists are supplied as a convenience; however, the contractor should verify all quantities. The drawings shall take precedence over the lists.
- 5. Plantings may need to be adjusted in the field to accommodate utilities, easements, drainage ways, downspouts, etc.; however, quantities and sizes shall remain consistent with these plans.
- Size & grading standards of plant material shall conform to the latest addition of ANSI Z60.1 AMERICAN STANDARD OF NURSERY STOCK, by the American Nursery & Landscape Association. Plant material shall be
- nursery grown and be either balled and burlap or container grown.

  7. All plant species specified are subject to availability. Material shortages in the landscape industry may require substitutions. All substitutions must be approved by the Landscape Architect and/or Owner.
- Any plant materials with damaged or crooked/disfigured leaders, bark abrasion, sun scald, insect damage, etc. are not acceptable and will be rejected by Landscape Architect and/or Owner. Trees with multiple
- leaders will be rejected unless called for in the plant list as multi-stem or clump.

  9. All plant material, especially trees, must be sourced within a fifty (100) mile radius of the subject property
- 10. Upon inspection and acceptance of all landscape items by Landscape Architect and/or Owner the contractor shall assume maintenance responsibilities for a period of thirty (30) days, for all plant material, to include: watering, cultivating, weeding, pruning, mulching and spraying as necessary to keep plants free of insects and in a healthy, vigorous condition until responsibility is transferred to the owner (see below).
- 11. All plant material shall be guaranteed for one (1) year after acceptance by landscape architect and/or owner. After the first thirty (30) days, the owner shall assume maintenance responsibilities as described (see above). Contractor shall replace without cost to owner any dead or unacceptable plants, as determined by the landscape architect at the end of one (1) year guarantee period. Contractor shall notify immediately, in writing, any concerns related to maintenance practices.
- 12. All planting beds and tree saucers shall be mulched continuous with 3" depth shredded hardwood mulch, see planting details. All deciduous trees (shade / ornamental) that are not located in in a planting bed shall be mulched with a 3'-0" diameter circle. Evergreen trees and mulit-stemmed ornamental trees shall be mulched to outer-most branches at the time of installation.
  13. Planting edge delineation at all planting bed lines and tree saucers shall require a minimum 4" depth "vee"

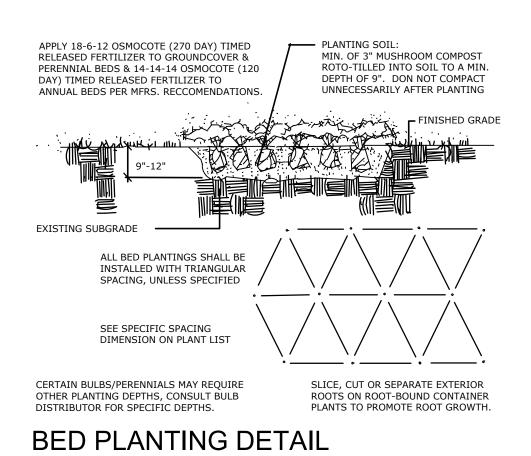
shaped cultivated, spaded edge with a vertical face abutting all lawn areas and sloped to inside of plant bed

compact enough to reduce erosion of seed and topsoil but loose enough to allow air to circulate. Install per

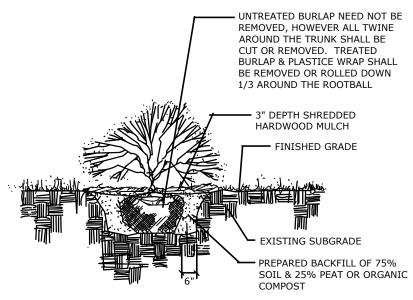
- continuous between lawn and mulched areas as indicated on plan.

  14. Contractor to seed all disturbed lawn areas. Seeded lawn to be a combination of bluegrass, perennial rye and red fescue with the suggested following analysis by weight: 30% rugby Kentucky bluegrass, 20% park Kentucky bluegrass, 20% creeping red fescue, 20% scaldis hard fescue, and 10% perennial ryegrass. Seed to be applied at a rate of 4 lbs. per 1,000 s.f.. All seeded lawn areas shall be covered with straw mulch or erosion control netting, consisting of hand or machine application at a rate of 2 ton per acre. Mulch shall be
- Method 1, Section 251, of the Standard Specifications for Road and Bridge Construction.

  15. All seeded turf areas shall be fertilized at installation with 6-20-20 analysis, at a rate of 6 lbs. per 1,000 s.f.. A second application of 21-7-14 to be applied at rate of 6 lbs. per 1,000 s.f. after the first cutting. Acceptance and guarantee notes shall apply to all seeded areas.
- 16. Acceptance of grading and seed shall be by landscape architect and/or owner. Contractor shall assume maintenance responsibilities for a minimum of sixty (60) days or until second cutting, whichever is longer. Maintenance shall include watering, weeding, re-seeding (wash-offs) and other operations necessary to keep lawn in a thriving condition. Upon final acceptance, owner shall assume all maintenance responsibilities. After lawn areas have germinated, areas which fail to show a uniform stand of grass for any reason whatsoever shall be re-seeded repeatedly until all areas are covered with a satisfactory stand of grass. Minimum acceptance of seeded lawn areas may include scattered bare or dead spots, none of which are larger than one (1) square foot and when combined do not exceed 2% of total lawn area.



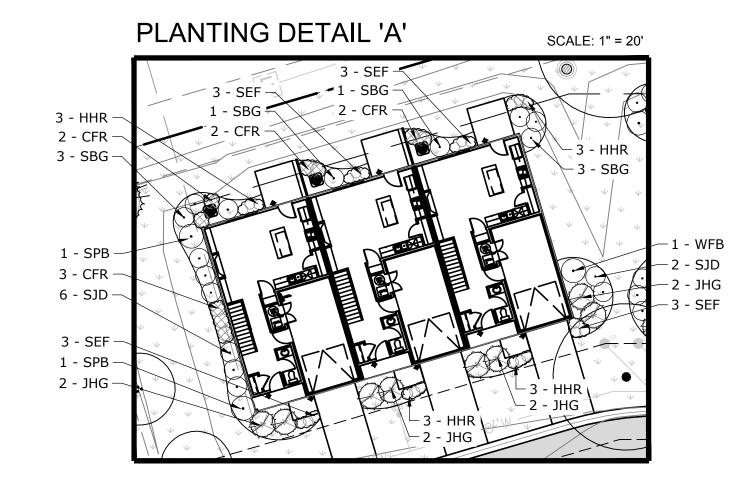
(GROUNDCOVER, PERENNIALS & ANNUALS)



SHRUB PLANTING DETAIL

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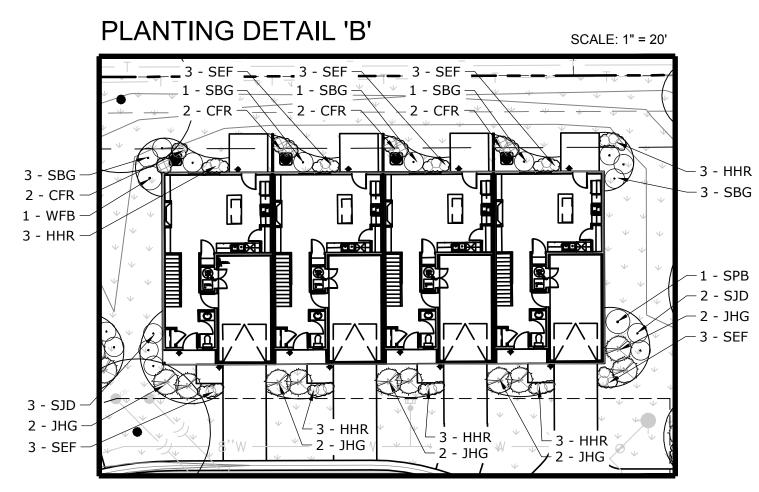


#### PLANT LIST - PLANTING DETAIL 'A'

OCCURS 1 TIME

QTY	Botanical name COMMON NAME	SIZE	REMARKS
8	Juniperus horizontalis 'Hegedus' GOOD VIBRATIONS GOLD JUNIPER	5 GAL	EVERGREEN
8	Spiraea betulifolia 'Glow Girl' GLOW GIRL TOR SPIREA	18" / 5 GAL	
8	Spiraea japonica 'Double Play' DOUBLE-PLAY ARTISAN SPIREA	18" / 5 GAL	
2	Syringa patula x 'Bloomerang' DWARF REBLOOMING KOREAN LILAC	24" / 5 GAL	
1	Weigela florida x 'Bokrasopin' SONIC BLOOM PINK WEIGELA	24" / 5 GAL	
9	Calamagrostis acutifolia 'Karl Forster' KARL FORSTER FEATHER REED GRASS	2 GAL	3'-0" O.C PERENNIAL
12	Hemerocallis 'Happy Returns' HAPPY RETURNS DAYLILY	GAL	2'-0" O.C PERENNIAL
12	Salvia x 'East Friesland' FRIESLAND MEADOW SAGE	GAL	2'-0" O.C PERENNIAL
	8 8 8 2 1 9	QTY COMMON NAME  8  Juniperus horizontalis 'Hegedus' GOOD VIBRATIONS GOLD JUNIPER  8  Spiraea betulifolia 'Glow Girl' GLOW GIRL TOR SPIREA  8  Spiraea japonica 'Double Play' DOUBLE-PLAY ARTISAN SPIREA  2  Syringa patula x 'Bloomerang' DWARF REBLOOMING KOREAN LILAC  1  Weigela florida x 'Bokrasopin' SONIC BLOOM PINK WEIGELA  9  Calamagrostis acutifolia 'Karl Forster' KARL FORSTER FEATHER REED GRASS  12  Hemerocallis 'Happy Returns' HAPPY RETURNS DAYLILY  Salvia x 'East Friesland'	QTY COMMON NAME SIZE  8  Juniperus horizontalis 'Hegedus' 5 GAL  8  Spiraea betulifolia 'Glow Girl' 18" / 5 GAL  8  Spiraea japonica 'Double Play' DOUBLE-PLAY ARTISAN SPIREA  2  Syringa patula x 'Bloomerang' DWARF REBLOOMING KOREAN LILAC  1  Weigela florida x 'Bokrasopin' SONIC BLOOM PINK WEIGELA  9  Calamagrostis acutifolia 'Karl Forster' KARL FORSTER FEATHER REED GRASS  12  Hemerocallis 'Happy Returns' HAPPY RETURNS DAYLILY  Salvia x 'East Friesland'  6AL

PLANT COUNTS ARE FOR ONE UNIT, MULTIPLY BY TOTAL # OF UNITS



## PLANT LIST - PLANTING DETAIL 'B' OCCURS 3 TIMES

KEY	QTY	Botanical name COMMON NAME	SIZE	REMARKS
JHG	10	Juniperus horizontalis 'Hegedus' GOOD VIBRATIONS GOLD JUNIPER	5 GAL	EVERGREEN
SBG	9	Spiraea betulifolia 'Glow Girl' GLOW GIRL TOR SPIREA	18" / 5 GAL	
SJD	5	Spiraea japonica 'Double Play' DOUBLE-PLAY ARTISAN SPIREA	18" / 5 GAL	
SPB	1	Syringa patula x 'Bloomerang' DWARF REBLOOMING KOREAN LILAC	24" / 5 GAL	
WFB	1	Weigela florida x 'Bokrasopin' SONIC BLOOM PINK WEIGELA	24" / 5 GAL	
CFR	8	Calamagrostis acutifolia 'Karl Forster' KARL FORSTER FEATHER REED GRASS	2 GAL	3'-0" O.C PERENNIAL
HHR	15	Hemerocallis 'Happy Returns' HAPPY RETURNS DAYLILY	GAL	2'-0" O.C PERENNIAL
SEF	15	Salvia x 'East Friesland' FRIESLAND MEADOW SAGE	GAL	2'-0" O.C PERENNIAL

PLANT COUNTS ARE FOR ONE UNIT, MULTIPLY BY TOTAL # OF UNITS

#### LEGEND

MIXED PERENNIALS / ORNAMENTAL GRASSES

EVERGREEN / DECIDUOUS SHRUBS

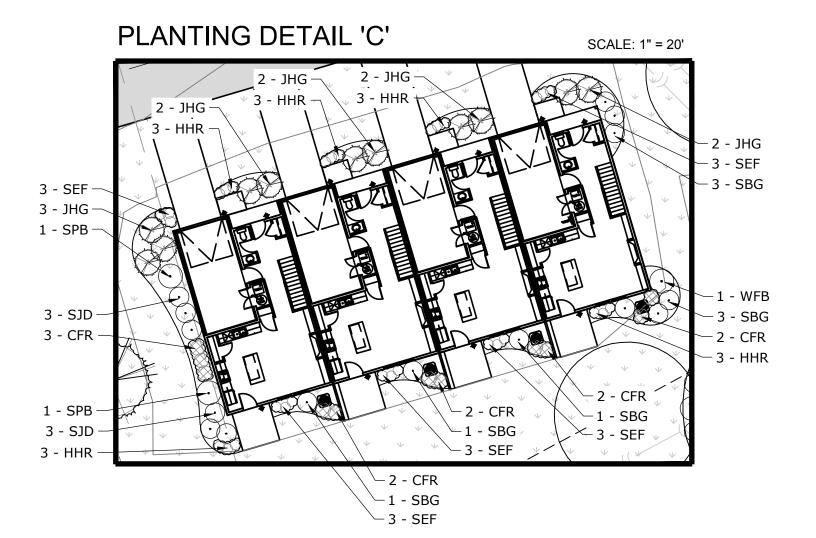
LARGE DECIDUOUS SHADE TREE

FOR OVERALL SITE TREE PLANTING, SEE SHEET L01

EVERGREEN TREE / ORNAMENTAL TREE

#### **ZONING DATA**

ZONINO DATA			
CATEGORY	QUANTITY	REQUIREMENT	PROVISION
TRANSITION AREA LANDSCAPE PLANTING (BUFFER YARDS)	NORTH PL: 332 L.F. EAST PL: 319 L.F. SOUTH PL: 233 L.F.	13 TREES (4 / 100 LF) 13 TREES (4 / 100 LF) 9 TREES (4 / 100 LF)	8 TOTAL* - 5 TREES + 3 EXISTING (MIXED VARIETY SHADE, EVERG.) 11 TOTAL* - 4 TREES + 7 EXISTING (MIXED VARIETY SHADE, EVERG.) 4 TOTAL* - 4 TREES (MIXED VARIETY OF SHADE, EVERG.) *19 ADDITIONAL SITE TREES ARE PROVIDED; AGGREGATELY, THESE EXCEED THE REQUIREMENT.
PARKING PERIMETER LANDSCAPE PLANTING	ALL PARKING AREAS, TWO (2) PROVIDED = 54 L.F. EA	27 L.F MINIMUM OF 50% THE LENGTH OF PARKING PERIMETER	32 L.F. = 60% OF THE PARKING PERIMETER LENGTH PLANTED
FOUNDATION LANDSCAPE PLANTING	UNIT A TYPE - 218 L.F. UNIT B/C TYPE = 264 L.F.	174 L.F MINIMUM 80% OF FACADE 211 L.F MINIMUM 80% OF FACADE	175 L.F 80% OF FOUND. 213 L.F 80% OF FOUND.
EXISTING TREES 14 TREES - MIXED VARIETIES (DECIDUOUS AND EVERGREEN) AND SIZES (CALIPER INCH WIDTH OR HEIGHT)			



#### PLANT LIST - PLANTING DETAIL 'C' OCCURS 2 TIMES

KEY	QTY	Botanical name COMMON NAME	SIZE	REMARKS
JHG	11	Juniperus horizontalis 'Hegedus' GOOD VIBRATIONS GOLD JUNIPER	5 GAL	EVERGREEN
SBG	9	Spiraea betulifolia 'Glow Girl' GLOW GIRL TOR SPIREA	18" / 5 GAL	
SJD	6	Spiraea japonica 'Double Play' DOUBLE-PLAY ARTISAN SPIREA	18" / 5 GAL	
SPB	2	Syringa patula x 'Bloomerang' DWARF REBLOOMING KOREAN LILAC	24" / 5 GAL	
WFB	1	Weigela florida x 'Bokrasopin' SONIC BLOOM PINK WEIGELA	24" / 5 GAL	
CFR	11	Calamagrostis acutifolia 'Karl Forster' KARL FORSTER FEATHER REED GRASS	2 GAL	3'-0" O.C PERENNIAL
HHR	15	Hemerocallis 'Happy Returns' HAPPY RETURNS DAYLILY	GAL	2'-0" O.C PERENNIAL
SEF	15	Salvia x 'East Friesland' FRIESLAND MEADOW SAGE	GAL	2'-0" O.C PERENNIAL

PLANT COUNTS ARE FOR ONE UNIT, MULTIPLY BY TOTAL # OF UNITS

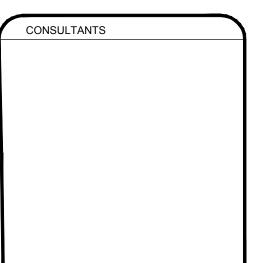
ARC DESIGN RESOURCES INC.
5291 ZENITH PARKWAY   LOVES PARK, IL 61111   VOICE: (815) 484-4300   FAX: (815) 484-4303
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PROJECT NAME OWNER'S NAME

## CLEARWING LOT A PUD

10311 CLEARWING LN ROSCOE, IL 61073 WINNEBAGO COUNTY

WHITE OAK TRUST 747 GLEASMAN ROAD ROSCOE, IL 61073



ISSUED FOR	
	DATE
1. OWNER REVIEW	11-14-2024
2. AGENCY APPROVAL	01-14-2025
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REVISIONS	
ITEM	DATE
1	
2	
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6	<u> </u>

LANDSCAPE DETAILS

DRAWN	MJH
CHECKED	JSL
PM	JSL