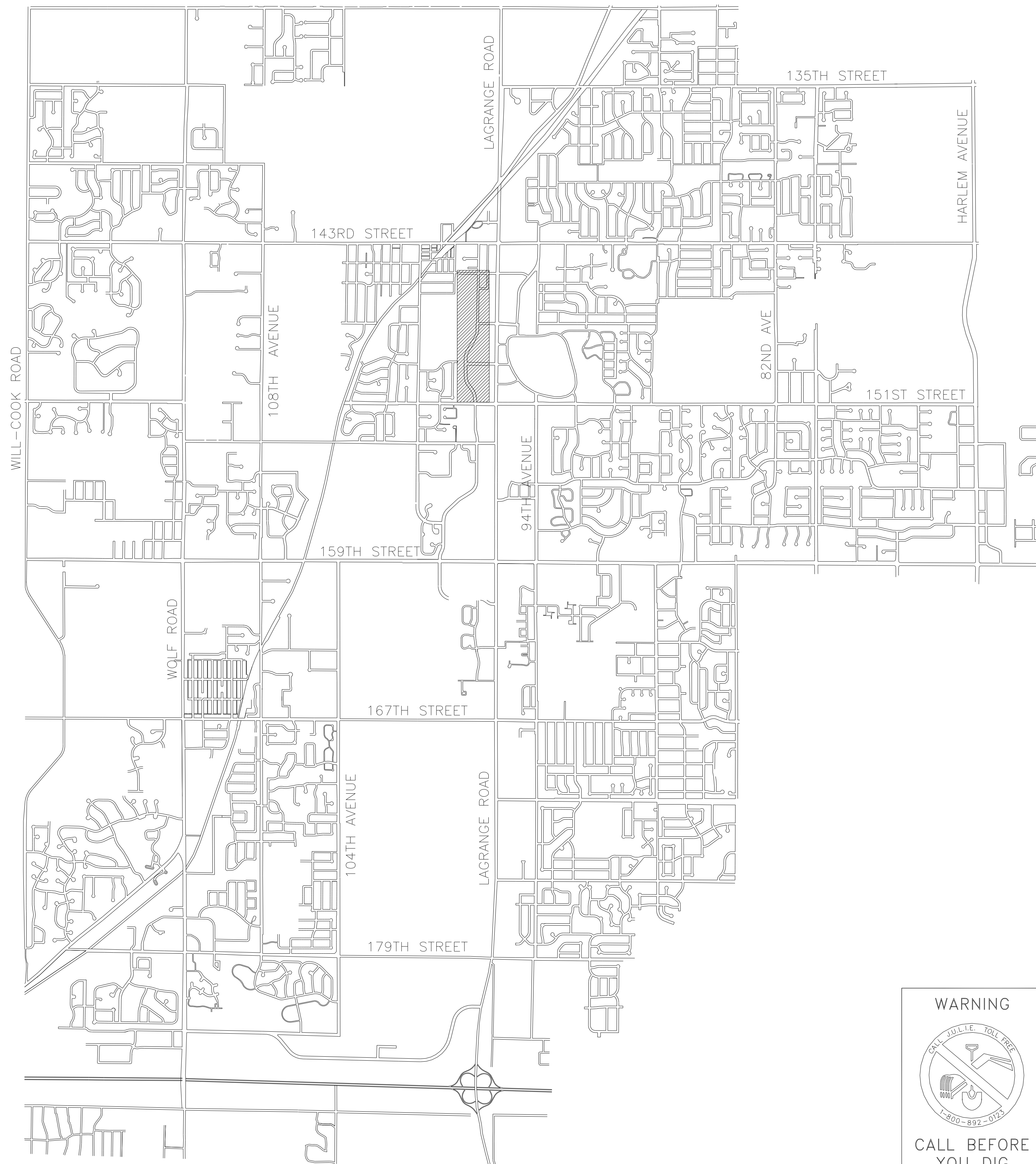


# ORLAND PARK Ravinia Avenue Resurfacing



 PROJECT AREA

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MAYOR  
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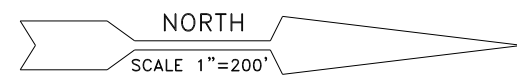
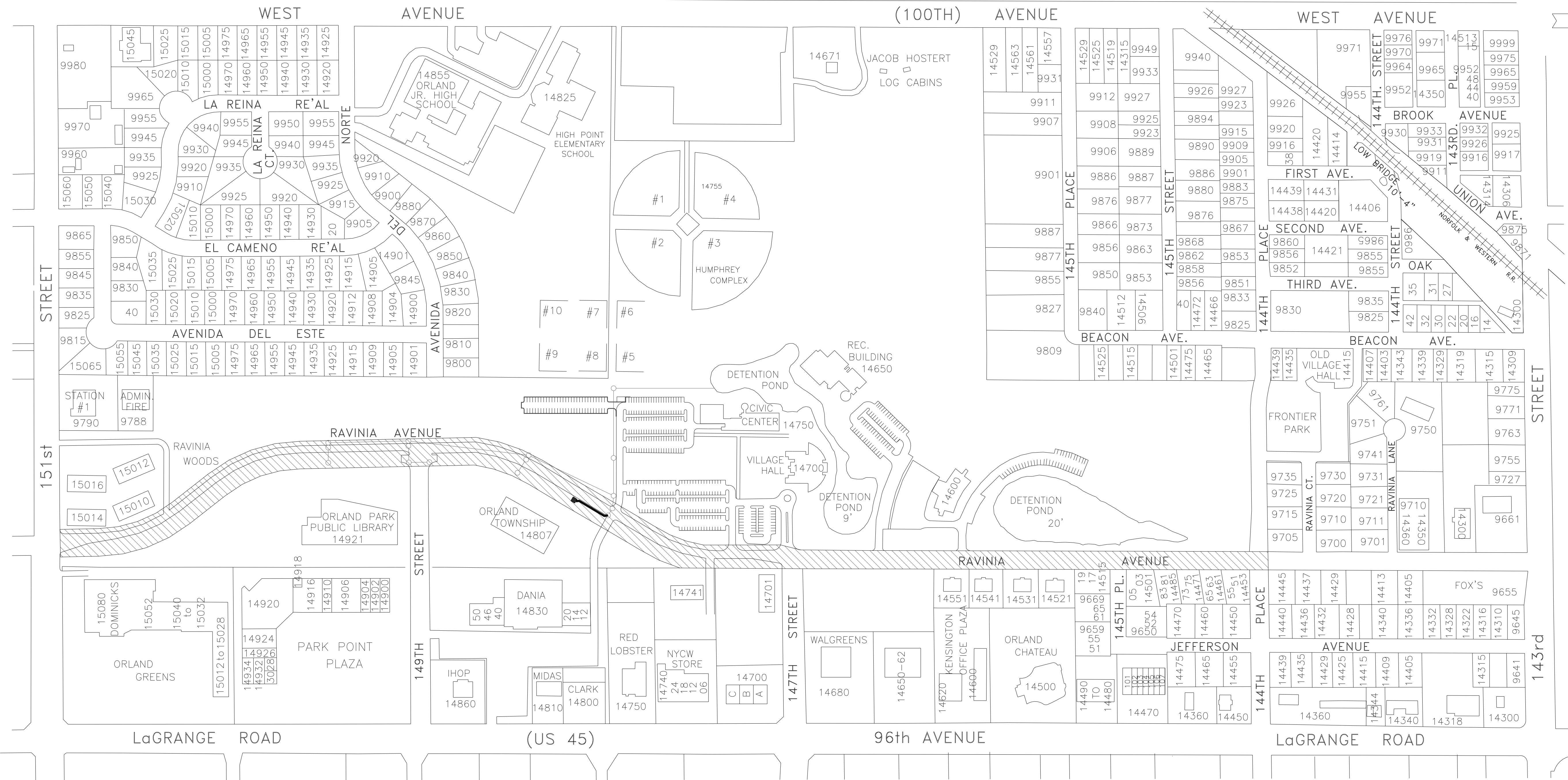
**WARNING**



**CALL BEFORE YOU DIG**

Municipality: Orland Park  
Township: Orland  
County: Cook  
Section: T36N, R12E, Sec.9

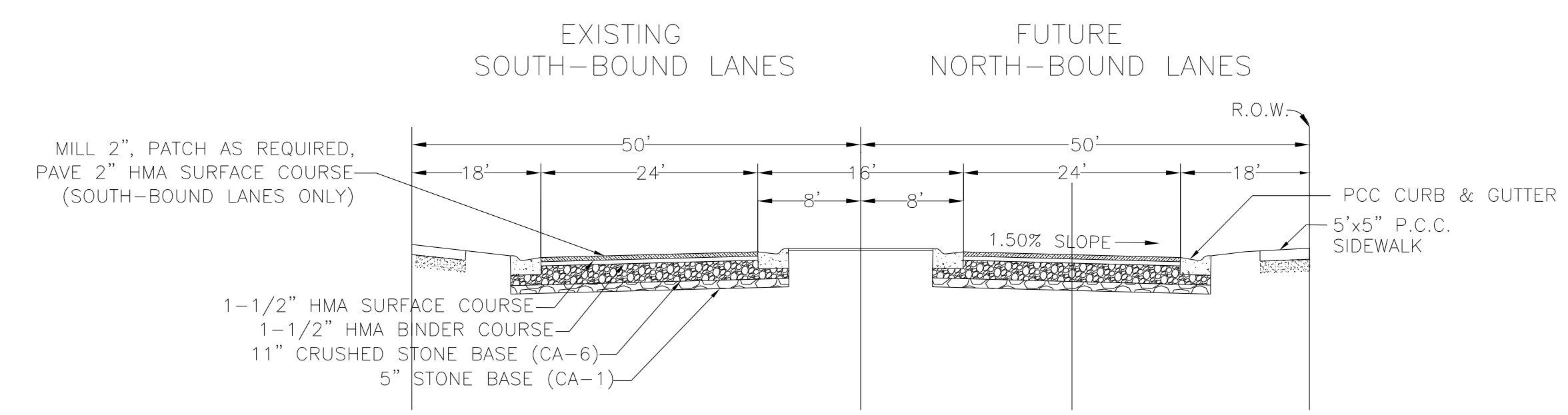
Cover Sheet		
SCALE: NTS	Ravinia Avenue Resurfacing	DRAWN BY: RJR
DATE: 2-16-11		REVISED:
Village of <b>ORLAND PARK</b>		
Public Works Department		DRAWING NO. 1 OF 3



**WARNING**

**CALL BEFORE YOU DIG**

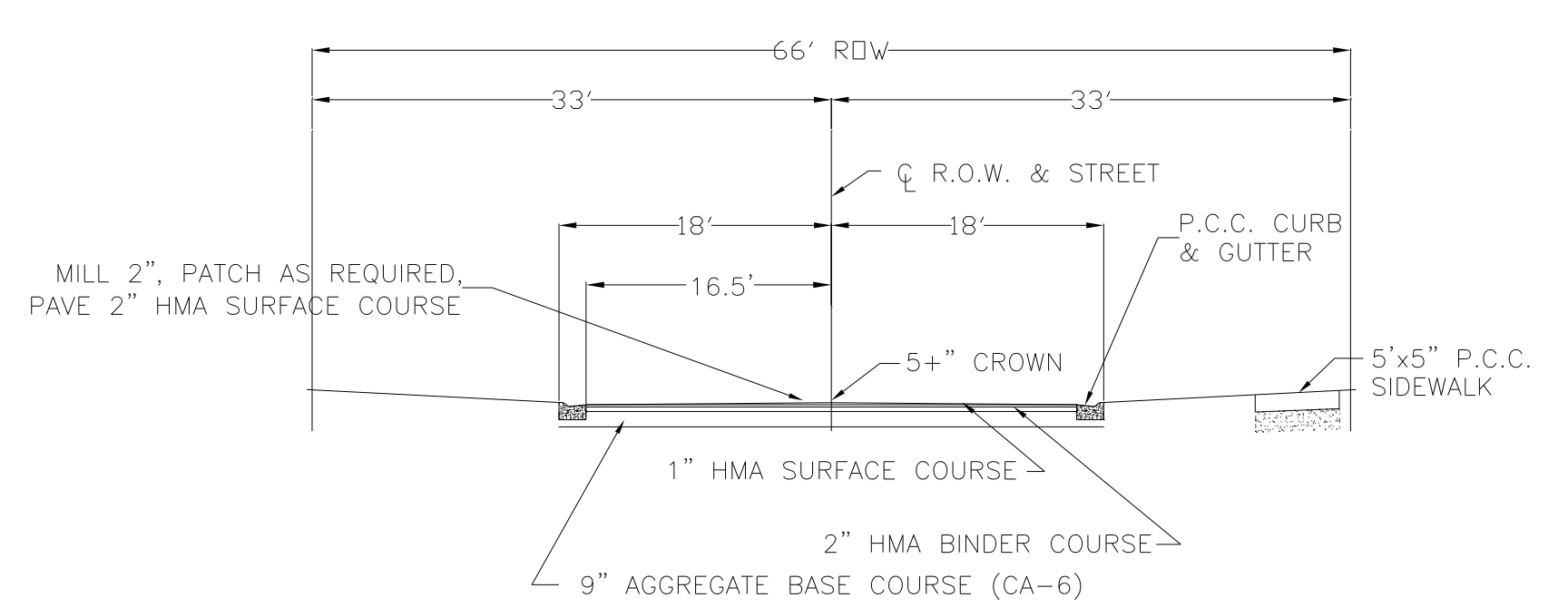
Municipality: **Orland Park**  
 Township: **Orland**  
 County: **Cook**  
 Section: **T36N, R12E, Sec.9**



**RAVINIA AVENUE – SOUTH OF 147TH STREET**

TYPICAL ROAD SECTION  
 (SOUTH-BOUND LANES ONLY)

N.T.S.



**RAVINIA AVENUE – NORTH OF 147TH STREET**

TYPICAL ROAD SECTION

N.T.S.

**LEGEND**

- Project Area
- Existing Storm Sewer
- Existing Storm Structure
- Proposed 24 in. Inlet
- Proposed 6 in. PVC Drain

Plan Sheet		
SCALE: 1"=200'	Ravinia Avenue Resurfacing	DRAWN BY: RJR
DATE: 2-16-11		REVISED: _____
Village of <b>ORLAND PARK</b>		
Public Works Department		DRAWING NO. 2 OF 3



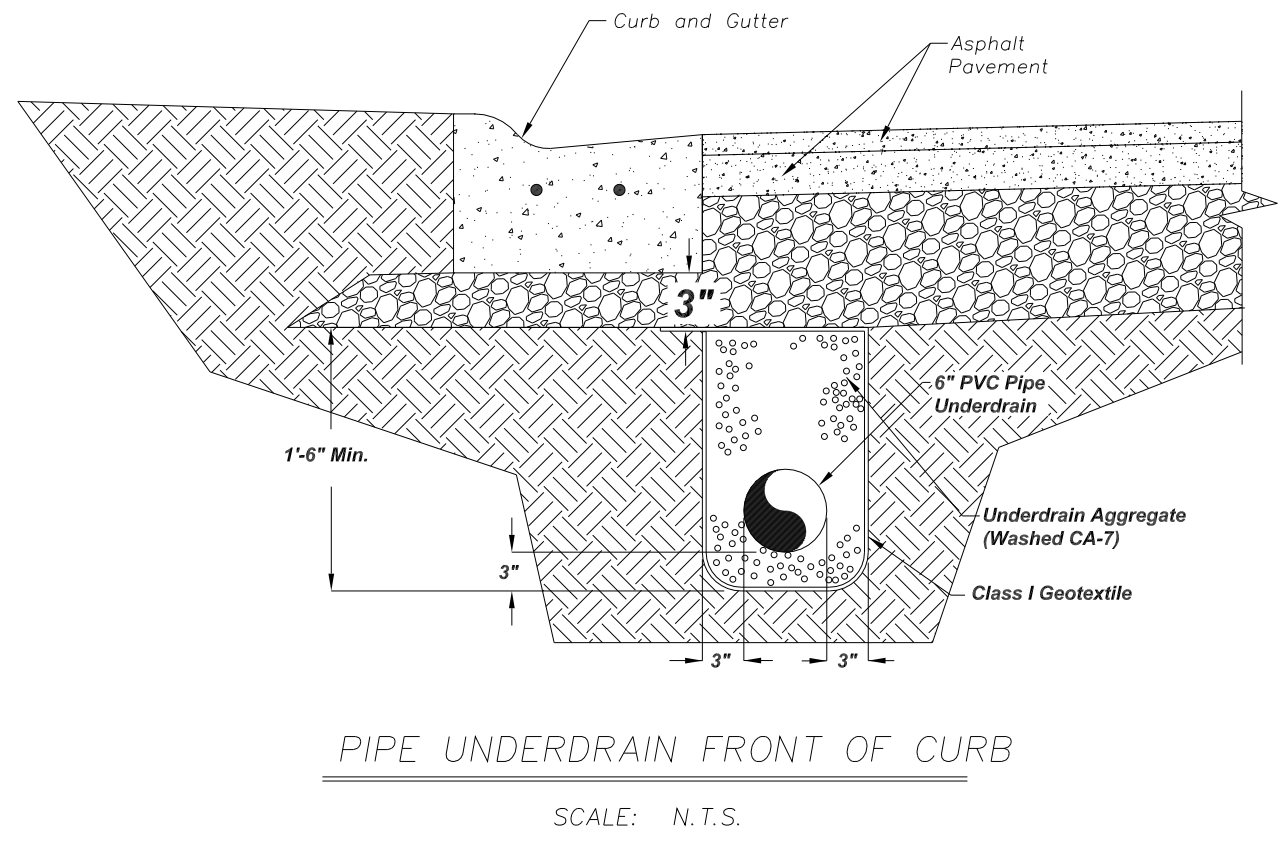
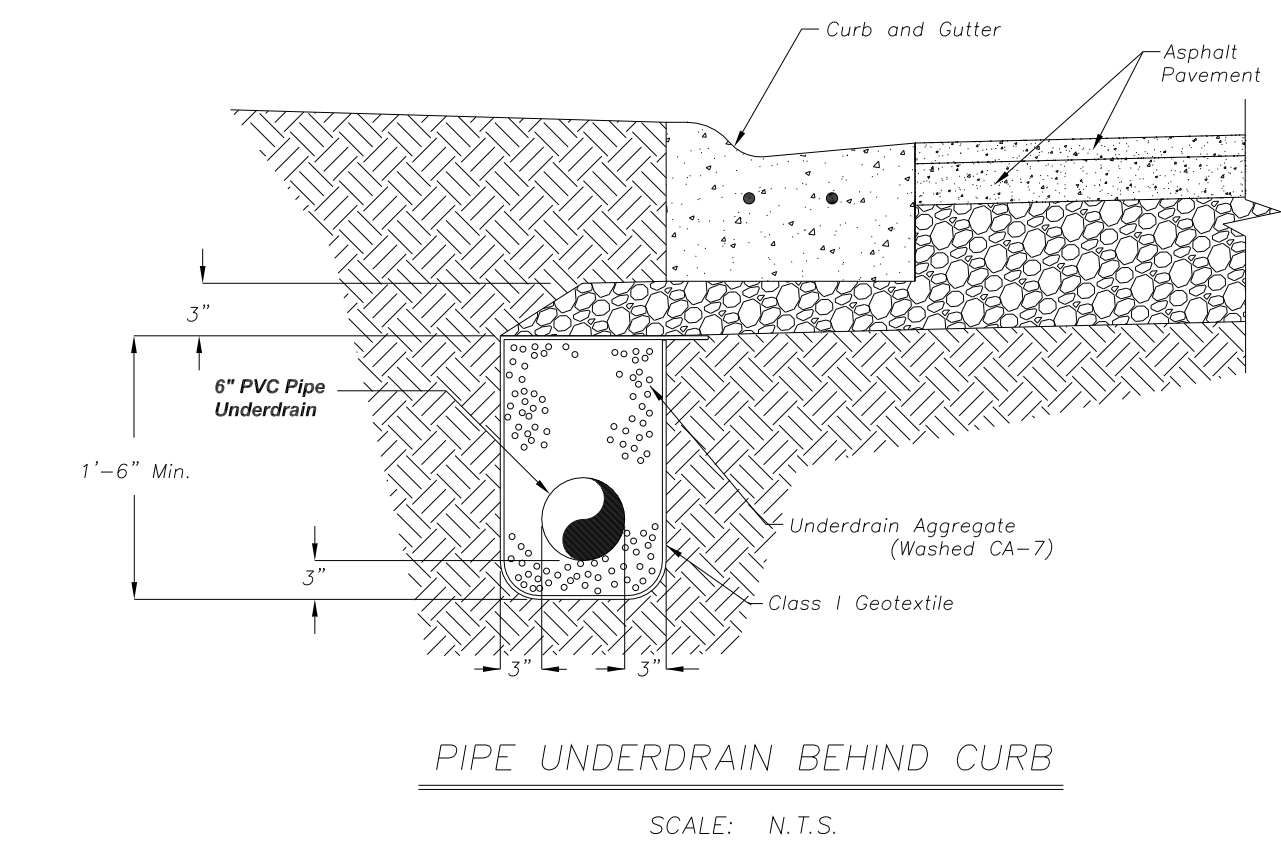
**GENERAL NOTES**

01. ALL CONSTRUCTION SHALL CONFORM TO THE LATEST EDITION OF THE "STANDARD SPECIFICATIONS FOR WATER AND SEWER MAIN CONSTRUCTION IN ILLINOIS" AND TO THE LATEST EDITION OF THE ILLINOIS DEPARTMENT OF TRANSPORTATION "STANDARD SPECIFICATIONS FOR ROAD AND BRIDGE CONSTRUCTION."
02. THE CONTRACTOR SHALL NOTIFY ALL UTILITY COMPANIES FOR FIELD LOCATIONS OF THEIR FACILITIES PRIOR TO CONSTRUCTION. THE CONTRACTOR SHALL BE RESPONSIBLE FOR THE MAINTENANCE AND PRESERVATION OF THESE FACILITIES.
03. CONSTRUCTION STAKING WILL BE PROVIDED BY THE VILLAGE.
04. TRENCH BACKFILL (ITEM #10,11), PER SECTION 208 OF THE STANDARD SPECIFICATIONS FOR ROAD AND BRIDGE CONSTRUCTION, SHALL BE INSTALLED WHEREVER THE INNER EDGE OF A TRENCH IS WITHIN TWO FOOT OF EXISTING OR PROPOSED PAVEMENT OR WHERE REQUIRED BY THE ENGINEER.
05. ALL NEW MANHOLES, CATCH BASINS, INLETS AND VALVE VAULTS SHALL INCLUDE A CAST IRON FRAME AND LID OR GRATE. STORM STRUCTURES WHICH FALL IN THE CURBLINE AND REQUIRE AN OPEN GRATE SHALL USE EAST JORDAN IRON WORKS FRAME 7525 OR AN APPROVED EQUAL.
06. PAVEMENT SHALL BE SAW-CUT EACH SIDE OF PROPOSED WATERMAIN OR SEWER PRIOR TO INSTALLATION. SAW-CUTTING SHALL BE INCIDENTAL TO THE COST OF THE WATERMAIN OR SEWER CONSTRUCTION.
07. ALL JOB SITES SHALL BE CLEAN AND SWEEPED AFTER FINAL PAVING. THE COST OF CLEANING AND SWEEPING SHALL BE INCIDENTAL TO THE COST OF THE PROJECT.
08. ALL GRINDINGS, CONCRETE AND OTHER EXCAVATED MATERIAL SHALL BE DISPOSED OF OFFSITE BY THE CONTRACTOR IN ACCORDANCE WITH ARTICLE 202.03 OF THE STANDARD SPECIFICATIONS. EXCAVATED MATERIAL SHALL ALSO BE DISPOSED OF IN ACCORDANCE WITH THE ENVIRONMENTAL PROTECTION ACT [415 ILCS 5/22.51]. DISPOSAL SHALL BE CONSIDERED INCIDENTAL TO THE COST OF THE WORK PERFORMED. AT VILLAGE DISCRETION, SOME (OR ALL) OF THE MILLED ASPHALT OR BASE MATERIAL SHALL BE HAULED TO A VILLAGE OWNED SITE WITHIN THE VILLAGE BOUNDARY, EXACT QUANTITY AND LOCATION TO BE DETERMINED AT TIME OF CONSTRUCTION.
09. IT IS THE CONTRACTOR'S RESPONSIBILITY TO OBTAIN ANY AND ALL NECESSARY STATE OR COUNTY PERMITS.
10. NO CONSTRUCTION WORK SHALL BE DONE DURING STORMY, FREEZING OR INCLEMENT WEATHER, EXCEPT THAT WHICH CAN BE DONE IN A MANNER TO SECURE FIRST CLASS CONSTRUCTION THROUGHOUT, AND THEN ONLY SUBJECT TO PRIOR WRITTEN PERMISSION FROM THE VILLAGE.
11. ANY STREET SIGNS REMOVED AND/OR DAMAGED DURING, OR AS A RESULT OF THE CONSTRUCTION SHALL BE REPLACED AT THE ORIGINAL LOCATION, WITH THE ORIGINAL UNDAMAGED SIGN OR AN APPROVED EQUAL AT NO COST TO THE VILLAGE.
12. THE UNIT PRICE FOR ALL SIDEWALK, CURB, AND DRIVEWAY PAY ITEMS SHALL INCLUDE SAW-CUTTING, RINSING WITH WATER AFTER SAW-CUTTING, REMOVAL OF EXISTING, AND REPLACEMENT.
13. REMOVE & REPLACE 5 IN. P.C.C. SIDEWALK (ITEM #01) SHALL BE REMOVED BY SUCH METHODS THAT WILL NOT CAUSE DAMAGE TO THE AREA BETWEEN THE CURB AND THE SIDEWALK. UNNECESSARY DAMAGE TO TREES, SOD OR DRIVEWAYS IN THIS AREA SHALL BE REPAIRED OR REPLACED AT NO COST TO THE VILLAGE.
14. AT VILLAGE DISCRETION, SOME SECTIONS OF CURB OR SIDEWALK SHALL BE REMOVED AND REPLACED IN TWO PARTS TO MAINTAIN ACCESS TO CROSS STREETS OR MULTI-RESIDENTIAL AREAS. ANY ADDITIONAL COST TO COMPLETE THIS WORK IN TWO PHASES SHALL BE INCIDENTAL TO THE COST OF REMOVE & REPLACE CURB & GUTTER M-3.12 OR B-6.12 (ITEM #03 OR #04), OR REMOVE & REPLACE 5 IN. P.C.C. SIDEWALK (ITEM #01).
15. ALL CURB & GUTTER ITEMS (#03,04) SHALL INCLUDE SAW-CUTTING AND EXCAVATING APPROXIMATELY ONE FOOT OF ASPHALT PAVEMENT TO BE REMOVED ADJACENT TO CURB IN ORDER TO ALLOW FOR PROPER FORMING. THIS AREA SHALL BE BACKFILLED WITH COMPACTED CA-6 AGGREGATE, PAVED WITH 3 IN. BINDER COURSE, AND LEFT 1-1/2" BELOW THE FRONT OF THE CURB IN ORDER TO ALLOW FOR SURFACE COURSE. THE PAY ITEM FOR AGGREGATE SHALL BE, TRENCH BACKFILL- CA-6 (ITEM #11). THE PAY ITEM FOR ASPHALT BINDER SHALL BE, CLASS D PATCHES, VARIOUS TYPES (ITEM #09).
16. THE AREA DIRECTLY BEHIND NEW CURB AND ADJACENT TO NEW SIDEWALK SHALL BE BACKFILLED WITH TOPSOIL TO THE TOP OF CONCRETE WITHIN FIVE DAYS OF CONCRETE PLACEMENT (UNLESS IN A DRIVEWAY). THIS TOPSOIL SHALL BE CONSIDERED PART OF THE SODDING (& TOPSOIL) (ITEM #15). TRIMMING FOR SOD SHALL BE DELAYED UNTIL LESS THAN FIVE DAYS PRIOR TO INSTALLATION.
17. CLASS D PATCHES- VARIOUS TYPES, (ITEM #09) WILL CONSIST OF PATCHING DETERIORATED ASPHALT AS DIRECTED BY THE VILLAGE BEFORE PAVING SURFACE COURSE IN THE AREAS SHOWN ON THE PLAN. ALL CLASS D PATCHING SHALL BE SAW-CUT PRIOR TO REMOVAL. ADDITIONAL PAVEMENT PATCHED OUTSIDE OF THE MARKED AREAS WILL NOT BE PAID. PATCHES DEEPER THAN 3 INCHES OR OUTSIDE OF THE AREAS DESIGNATED FOR PAVEMENT OVERLAY WILL BE PAVED IN TWO LIFTS (BINDER AND SURFACE COURSES).
18. THE CONTRACTOR WILL BE RESPONSIBLE FOR DELIVERING A COPY OF ANY AND ALL MATERIAL DELIVERY TICKETS TO THE VILLAGE AT THE END OF EACH WORK DAY.
19. STREETS SHALL BE PRIME COATED ONLY IF PAVING IS PLANNED FOR THE SAME DAY. THE APPLICATION RATE OF THE BITUMINOUS MATERIAL (SS-1) SHALL BE A MINIMUM OF 0.07 GAL. PER S.Y.

**QUANTITIES**

01. Remove & Replace 5 in. P.C.C. Sidewalk	500 S.F.
02. Detectable Warning Plate	8 EA.
03. Remove & Replace Curb & Gutter, M-3.12 Curb	1300 L.F.
04. Remove & Replace Curb & Gutter, B-6.12 Curb	200 L.F.
05. Pneumatic Curb Repair	320 L.F.
06. Remove & Replace 2.5 in. Asphalt Driveway Pavement	50 S.Y.
07. Bituminous Surface Removal, Entire Road Width (2" Depth)	13900 S.Y.
08. Bituminous Materials- Prime Coat	1400 GAL.
09. Class D Patches- Various Types	500 TON
10. Trench Backfill- Washed CA-7	10 TON
11. Trench Backfill- CA-6	100 TON
12. Mixture for Cracks, Joints & Flangeways	2 TON
13. Hot-Mix Asphalt Surface Course, Mix C, N50	1600 TON
14. Strip Reflective Crack Control Treatment, System B	200 S.F.
15. Sodding (& Topsoil)	300 S.Y.
16. 6 in. Perforated PVC Storm Sewer Underdrain	120 L.F.
17. 24 in. Inlet	1 EA.
18. Frames and Lids to be Adjusted (Steel Ring)	1 EA.
19. Adjust and Remortar Structure Frame	8 EA.
20. Reconstruct Manhole, Block	1 EA.
21. Reconstruct Manhole, Cone Section	1 EA.
22. Reconstruct Manhole, Flat Slab Top	1 EA.
23. Re-mortar Structure	25 EA.
24. Thermoplastic Pavement Marking, Line	3800 S.F.
25. Thermoplastic Pavement Marking, Symbol	110 S.F.
26. Detector Loop	280 L.F.

20. STRIP REFLECTIVE CRACK CONTROL, SYSTEM B (ITEM #14) SHALL BE AMOCO PETROTAC OR APPROVED EQUAL IN VARYING LENGTHS AND WIDTHS AS DIRECTED BY THE VILLAGE. INSTALLATION OF THE FABRIC SHALL CONFORM TO SECTION 443 OF THE IDOT STANDARD SPECIFICATIONS. THE FABRIC AND ASPHALT CEMENT TACK COAT SHALL CONFORM TO ARTICLE 1062.01 OF THE IDOT STANDARD SPECIFICATIONS.
21. RE-MORTAR STRUCTURE (ITEM #23) WORK SHALL NOT BE PERFORMED UNTIL AFTER ALL ADJACENT PAVING IS COMPLETED.
22. IT IS THE RESPONSIBILITY OF THE CONTRACTOR TO LOCATE AND PRESERVE ALL LAWN/LANDSCAPE SPRINKLER SYSTEM COMPONENTS. ANY DAMAGE SHALL BE REPAIRED OR REPLACED WITHIN SEVEN CALENDAR DAYS AT NO COST TO THE VILLAGE.
23. ALL ROADS SHALL REMAIN OPEN TO NORMAL TRAFFIC DURING CONSTRUCTION. THE CONTRACTOR WILL PROVIDE GUIDANCE AND WARNINGS AS NEEDED TO ENSURE THE SAFE OPERATION AND PASSAGE OF ALL TRAFFIC, INCLUDING PEDESTRIANS. UNLESS OTHERWISE NOTED, THE COST OF THIS TRAFFIC CONTROL SHALL BE INCIDENTAL TO THE UNIT PRICE OF THE WORK BEING PERFORMED.
24. MIXTURE FOR CRACKS, JOINTS AND FLANGEWAYS (ITEM #12) SHALL BE USED, AS NECESSARY, FOR FILLING EXISTING CRACKS OR OPEN PAVING JOINTS PRIOR TO THE USE OF STRIP REFLECTIVE CRACK CONTROL- SYSTEM B (ITEM #14).
25. 6 IN. PERFORATED PVC STORM SEWER UNDERDRAIN (ITEM #16) AND 24 IN. INLET (ITEM #17) SHALL CONFORM TO SECTION 601 OF THE IDOT STANDARD SPECIFICATIONS. THE SEWER PIPE SHALL BE 6 IN. PERFORATED PVC, (SPECS. PER ARTICLE 1040.03 OF THE IDOT STANDARD SPECS.) ENCASED IN A FABRIC ENVELOPE FOR PIPE UNDERDRAINS. THE SEWERS SHALL BE INSTALLED AS SHOWN IN THE DETAILS ALONG THE FRONT OR BACK OF THE CURB JUST BELOW THE BOTTOM OF THE EXISTING CURB (OR AS NECESSARY TO PROVIDE POSITIVE FLOW), DRAIN PERFORATIONS DOWN, IN A TRENCH THE MINIMUM SIZE NECESSARY TO INSTALL THE PIPE, AND BACKFILLED WITH COMPACTED TRENCH BACKFILL, WASHED CA-7 (ITEM #10) AND CA-6 (ITEM #11). ANY SUMP PUMP DISCHARGING WITHIN THREE FEET OF THE ADJACENT CURB SHALL BE CONNECTED TO THE UNDERDRAIN PIPE USING THE SAME PVC MATERIAL. ADDITIONALLY, STUBS MAY BE REQUIRED AT VILLAGE DISCRETION IN AREAS WITH OBVIOUS SUMP DISCHARGE ISSUES NOT WITHIN THREE FEET OF THE CURB. THE COST OF ANY FITTINGS SHALL BE INCIDENTAL TO THE COST OF THE PIPE. ASPHALT PAVEMENT REPAIR (ITEM#09, CLASS D PATCHES, VARIOUS TYPES) SHALL BE PLACED AFTER THE TRENCH HAS HAD AMPLE TIME TO SETTLE.
26. PER THE SPECIAL PROVISIONS, ALL STRUCTURE REPAIR ITEMS (#19,20,21,22,23) INCLUDE CLEANING DEBRIS FROM MANHOLE BOTTOM, MORTAR AND SET FINAL GRADE. RE-MORTAR STRUCTURE (ITEM #23) WILL BE THE PAY ITEM FOR CLEANING, PATCHING AND APPLYING NEW MORTAR TO THE INSIDE OF EXISTING STRUCTURES IN THE RIGHT-OF-WAY.
27. CURB AND GUTTER SHALL BE M-3.12, B-6.12, OR MATCH EXISTING (SHORT PIECES). THE MIX SHALL BE PORTLAND CEMENT CONCRETE, 3 IN. SLUMP, 6 SACKS OF CEMENT PER C.Y., AND AIR ENTRAINMENT OF NOT LESS THAN 5% OR MORE THAN 8%. CONCRETE SHALL HAVE A MINIMUM COMPRESSIVE STRENGTH OF 3,500 PSI AT 14 DAYS, 4,000 PSI AT 28 DAYS. ALL CURB AND GUTTER SHALL BE BROOM FINISHED. SAWED CONTRACTION JOINTS SHALL BE AT LEAST 1/4 OF THE CURB DEPTH, 20 FT. ON-CENTER, AND AT ALL PC'S AND PT'S WITHIN THREE DAYS OF PLACEMENT. CURB AND GUTTER SHALL BE BACKFILLED PRIOR TO INSTALLATION OF PAVEMENT.
28. ALL CURB SHALL INCLUDE CONTINUOUS REBAR AS DETAILED IN THE SPECIFICATIONS. 3/4 IN. THICK PRE-MOLDED FIBER EXPANSION JOINTS WITH 1/2 IN. X 18 IN. PLAIN, ROUND STEEL DOWEL BARS SHALL BE INSTALLED IN ALL CURB EXPANSION JOINTS, AND AT ALL PC'S AND PT'S. ALTERNATE ENDS OF THE DOWEL BARS SHALL BE GREASED AND FITTED WITH METAL EXPANSION TUBES. ALL EXPANSION JOINTS MUST BE FREE OF CONCRETE FOR THE ENTIRE CURB DEPTH.
29. ALL CONCRETE SIDEWALKS SHALL BE 5 IN. THICK, SET ON A 4 IN. THICK CA-6 COMPACTED STONE CUSHION- AGGREGATE BASE COURSE, TYPE B, AND SHALL BE 1/2 IN. PER FOOT ABOVE THE ADJACENT CURB OR MEET THE ADJACENT CONCRETE. SPECIFICATIONS FOR CONCRETE SHALL BE PORTLAND CEMENT CONCRETE, 2-4 IN. SLUMP, 6 SACKS OF CEMENT PER C.Y., AND AIR ENTRAINMENT OF NOT LESS THAN 5% OR MORE THAN 8%. CONCRETE SHALL HAVE A MINIMUM COMPRESSIVE STRENGTH OF 3,500 PSI AT 14 DAYS, 4,000 PSI AT 28 DAYS. ALL SIDEWALK SHALL BE BROOM FINISHED ACROSS IT'S ENTIRE SURFACE. MAXIMUM CROSS-SLOPE SHALL BE 1/4 IN. PER FOOT.
30. ALL PORTLAND CEMENT CONCRETE SHALL BE CURED AND PROTECTED IN ACCORDANCE WITH THE IDOT STANDARD SPECIFICATIONS FOR ROAD AND BRIDGE CONSTRUCTION. TWO COATS OF WHITE CURING COMPOUND SHALL BE APPLIED TO ALL CONCRETE WORK AS SOON AS THE FINISHING IS COMPLETE, WITHIN ONE HOUR OF FINAL STRIKING.
31. DETECTABLE WARNING PLATE (ITEM #02), WILL CONSIST OF INSTALLING 24"x24" CAST IRON PLATES (EAST JORDAN IRON WORKS 7005 SERIES WITH THE BLACK ASPHALT DIP FINISH, OR APPROVED EQUAL) IN FRESHLY POURED CONCRETE WALK. TYPICALLY, TWO ADJACENT PLATES WILL BE PLACED 6" BEHIND THE BACK OF CURB.
32. FRAMES AND LIDS TO BE ADJUSTED (STEEL RING),(ITEM #18), SHALL CONFORM TO SECTION 603.08 OF THE IDOT STANDARD SPECIFICATIONS.
33. SPECIAL ATTENTION IS DRAWN TO ARTICLE 105.06 OF THE IDOT STANDARD SPECIFICATIONS REQUIRING THE CONTRACTOR TO HAVE A COMPETENT SUPERINTENDING ON THE PROJECT SITE AT ALL TIMES, IRRESPECTIVE OF THE AMOUNT OF WORK SUBLET. THE SUPERINTENDENT SHALL BE CAPABLE OF READING AND UNDERSTANDING THE PLANS AND SPECIFICATIONS, SHALL HAVE FULL AUTHORITY TO EXECUTE ORDERS TO EXPEDITE THE PROJECT, SHALL BE RESPONSIBLE FOR SCHEDULING AND SHALL HAVE CONTROL OF ALL WORK AS THE AGENT OF THE CONTRACTOR. FAILURE TO COMPLY WITH THIS PROVISION WILL RESULT IN A SUSPENSION OF WORK AS STATED IN ARTICLE 108.07.



- Underdrain Notes:
- The installation of the underdrains shall conform to section 601.04 of the Illinois Department of Transportation Standard specifications for Road and Bridge Construction.
  - Pipe material shall be 6" perforated PVC, per article 1040.03 of the IDOT Standard Specifications.
  - The underdrains shall be installed just below the bottom of the existing curb (or as necessary to provide positive flow), with the drain perforations down. All underdrains shall be held in the center of the trench by mechanical means while placing compacted trench backfill of washed CA-7.
  - After the underdrain pipe is installed, the geotextile shall be folded over the underdrain aggregate and overlapped a minimum of 12".
  - The underdrains shall have watertight joints, and be tapped into the nearest storm sewer structure or as designated by the Village. The connection to the structure shall conform to ASTM C-923.

General Notes, Details & Quantities		
SCALE: NONE	Ravinia Avenue Resurfacing	DRAWN BY: RJR
DATE: 2-16-11		REVISED: ---
Village of <b>ORLAND PARK</b>		
Public Works Department		DRAWING NO. 3 OF 3