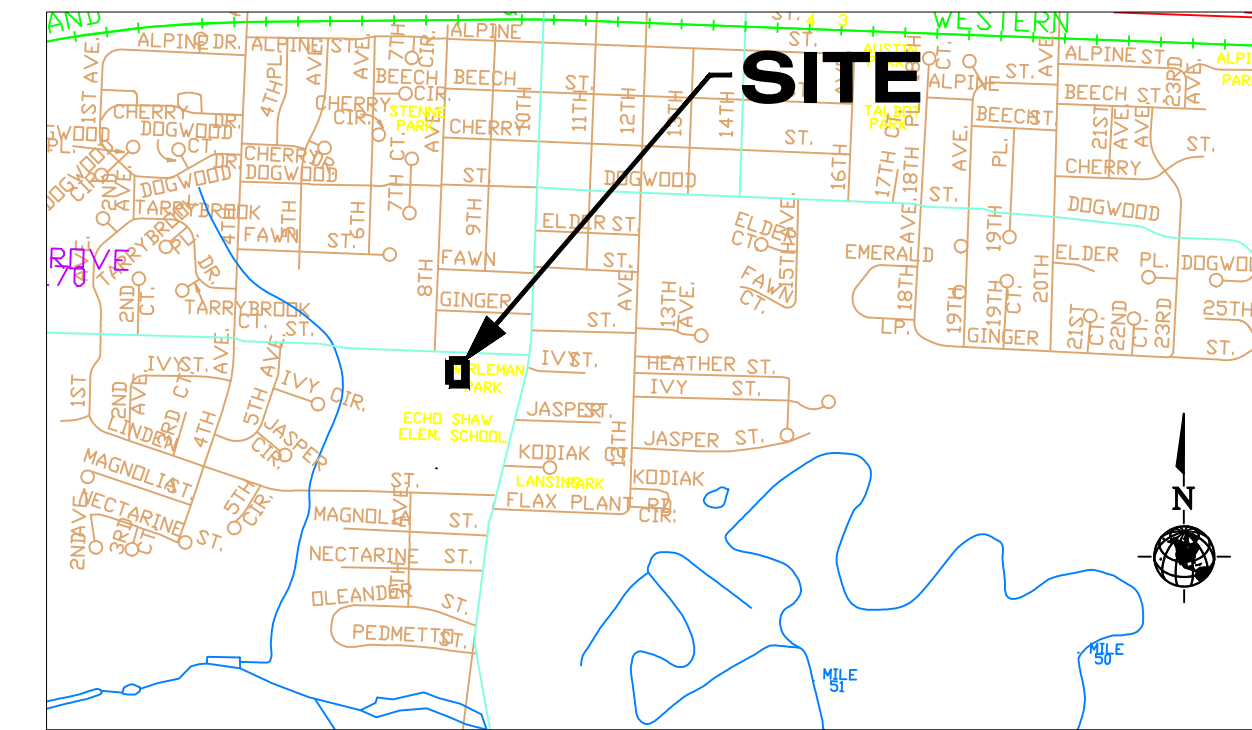


HARLEMAN PARK TENNIS COURT PROJECT CORNELIUS, OREGON 97113



VICINITY MAP
N.T.S.

DESIGN & SURVEY

CIVIL:
CITY OF CORNELIUS
PUBLIC WORKS DEPT.
1300 S. KODIAK CIRCLE
CORNELIUS, OREGON 97113
CONTACT: TERRY GODWIN, PROJECT MANAGER
(503) 357-3011
t.godwin@ci.cornelius.or.us

CITY ENGINEER:
TERRY KEYES, P.E.
(503) 357-3011
tkeyes@ci.cornelius.or.us

EROSION CONTROL INSPECTOR:
TERRY GODWIN
(503) 357-3011
t.godwin@ci.cornelius.or.us

UTILITIES

NATURAL GAS:
NORTHWEST NATURAL GAS
220 NW 2ND AVENUE
PORTLAND, OREGON 97209
CONTACT: MARK SHAFFER
(503) 226-4211 X6938

WATER, SANITARY & STORM:
CITY OF CORNELIUS
1355 N. BARLOW ST.
CORNELIUS, OREGON 97113
CONTACT: RYAN HOWELL
(503) 357-3011

ELECTRIC:
PORTLAND GENERAL ELECTRIC
4950 NW 238TH AVENUE
HILLSBORO, OREGON 97124
CONTACT: BRIAN MOORE
(503) 672-5474 WORK

CABLE:
COMCAST
14200 SW BRIGADOON COURT
BEAVERTON, OREGON 97005
CONTACT: MARGARET PORTER
(503) 605-4833 WORK
(503) 519-8500 X3582 MOBILE

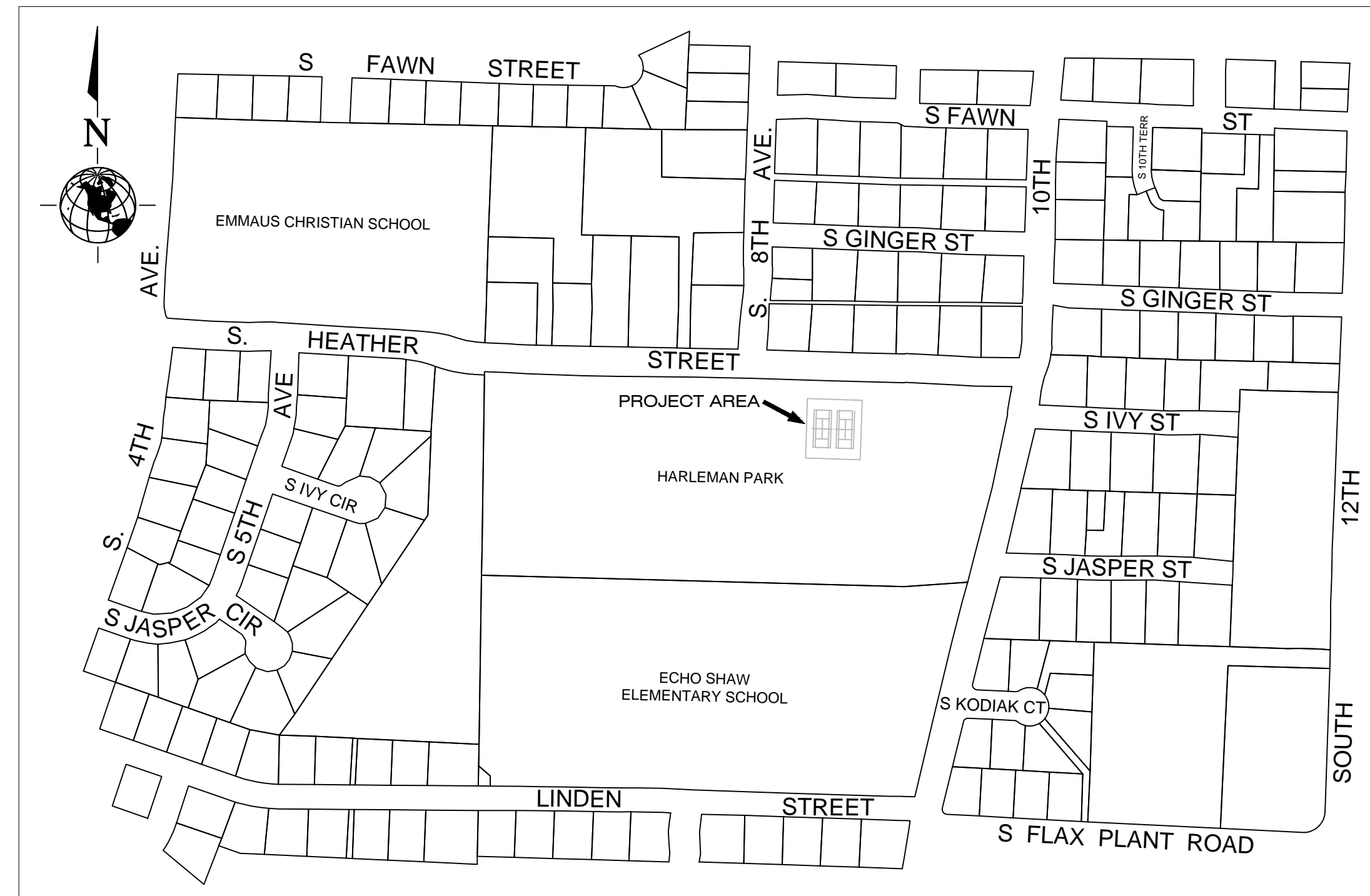
COMMUNICATIONS:
ZIPLY FIBER
20575 NW VON NEUMANN DR. #150
BEAVERTON, OREGON 97006
CONTACT: HAROLD VANCE
(503) 643-4874 WORK

BENCHMARK DATA

A BRASS DISK, STAMPED FEB 1949 WCBM 175,
SET IN CONCRETE SIDEWALK AT THE SOUTHEAST
CORNER OF INTERSECTION OF SOUTH 11TH AVENUE
AND SOUTH ALPINE STREET, 1 BLOCK SOUTH OF
BASELINE STREET (EAST BOUND TUALATIN VALLEY HIGHWAY)
IN CORNELIUS.

REFERENCE: 11 FEET SOUTHEAST OF PGE POLE #761
CHECKED BY: WASHINGTON COUNTY SURVEY DEPARTMENT
JULY 19, 2001

ELEVATION: 176.34



SITE MAP

SCALE: 1"=250'

GENERAL NOTES

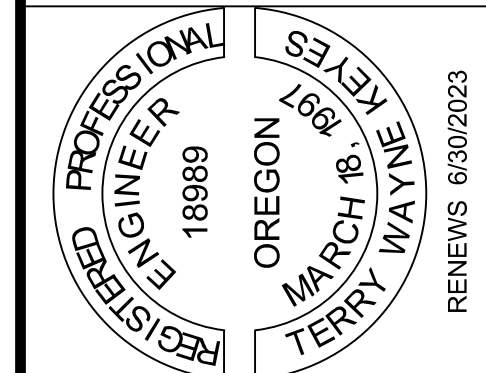
- ALL WORK SHALL CONFORM TO OREGON STANDARD SPECIFICATIONS FOR CONSTRUCTION, 2018 EDITION; THE REQUIREMENTS OF THE CITY OF CORNELIUS; AND CLEAN WATER SERVICES (CWS).
- THE WORKING DRAWINGS ARE GENERALLY DIAGRAMMATIC. THEY DO NOT SHOW EVERY OFFSET, BEND OR ELBOW REQUIRED FOR INSTALLATION IN THE SPACE PROVIDED. THEY DO NOT SHOW EVERY DIMENSION, COMPONENT PIECE, SECTION, JOINT OR FITTING REQUIRED TO COMPLETE THE PROJECT. ALL LOCATIONS FOR WORK SHALL BE CHECKED AND COORDINATED WITH EXISTING CONDITIONS IN THE FIELD BEFORE BEGINNING CONSTRUCTION. EXISTING UNDERGROUND UTILITIES LAYING WITHIN THE LIMITS OF EXCAVATION SHALL BE VERIFIED AS TO CONDITION, SIZE AND LOCATION BY UNCOVERING, PROVIDING SUCH IS PERMITTED BY LOCAL PUBLIC AUTHORITIES WITH JURISDICTION, BEFORE BEGINNING CONSTRUCTION. CONTRACTOR TO NOTIFY ENGINEER IF THERE ARE ANY DISCREPANCIES.
- EFFECTIVE EROSION CONTROL IS REQUIRED. EROSION CONTROL DEVICES MUST BE INSTALLED AND MAINTAINED TO MEET CWS REQUIREMENTS. THE GOVERNING JURISDICTION MAY, AT ANY TIME, ORDER CORRECTIVE ACTION AND STOPPAGE OF WORK TO ACCOMPLISH EFFECTIVE EROSION CONTROL.
- EFFECTIVE DRAINAGE CONTROL IS REQUIRED. DRAINAGE SHALL BE CONTROLLED WITHIN THE WORK SITE AND SHALL BE ROUTED SO THAT ADJACENT PRIVATE PROPERTY, PUBLIC PROPERTY, AND THE RECEIVING SYSTEM ARE NOT ADVERSELY IMPACTED. THE GOVERNING JURISDICTION MAY, AT ANY TIME, ORDER CORRECTIVE ACTION AND STOPPAGE OF WORK TO ACCOMPLISH EFFECTIVE DRAINAGE CONTROL.
- CONTRACTOR SHALL ADJUST ALL STRUCTURES AND/OR APPURTENANCES IMPACTED BY CONSTRUCTION IMPROVEMENTS TO NEW FINISH GRADES.
- EXCAVATION: EXCAVATE FOR SLABS, PAVING, AND OTHER IMPROVEMENTS TO SIZES AND LEVELS SHOWN OR REQUIRED. ALLOW FOR FORM CLEARANCE AND FOR PROPER COMPACTION OF REQUIRED BACKFILLING MATERIAL. EXCAVATOR(S) MUST COMPLY WITH O.R.S. 757.541 THROUGH 757.571; EXCAVATOR(S) SHALL NOTIFY ALL UTILITY COMPANIES FOR ALL LINE LOCATIONS SEVENTY-TWO (72) HOURS (MINIMUM) PRIOR TO START OF WORK. DAMAGE TO UTILITIES SHALL BE CORRECTED AT THE CONTRACTOR'S EXPENSE. (ONE CALL LOCATE UTILITY NOTIFICATION CENTER - PORTLAND METRO AREA 246-6699, OREGON 696-4848, ALL OTHER AREAS 1-800-332-2344).
- WHERE CONNECTING TO AN EXISTING PIPE, AND PRIOR TO ORDERING MATERIALS, THE CONTRACTOR SHALL EXPOSE THE END OF THE EXISTING PIPE AND VERIFY THE LOCATION, SIZE, AND ELEVATION. NOTIFY ENGINEER OF ANY DISCREPANCIES.
- REQUEST BY THE CONTRACTOR FOR CHANGES TO THE PLANS MUST BE APPROVED BY THE ENGINEER.
- CONTRACTOR SHALL CHECK FOR CONFLICTS WITH EXISTING CROSSINGS OF SANITARY, GAS, WATER, ETC. WHEN INSTALLING STORM AND WATERLINE.
- CONTRACTOR SHALL COORDINATE STAGING AREA FOR PROJECT WITH CITY OF CORNELIUS.
- CONTRACTOR SHALL KEEP (1) SET OF PLANS UP TO DATE NOTING ALL CHANGES AND UTILITIES ENCOUNTERED DIFFERENT THAN SHOWN ON PLANS. PLAN TO BE GIVEN TO CITY ENGINEER FOLLOWING CONSTRUCTION FOR PREPARATION OF RECORD DRAWINGS.

SHEET INDEX

SHEET NO. DRAWING TITLE

- COVER SHEET
- DEMOLITION PLAN
- EROSION CONTROL NOTES, PLAN AND DETAILS
- TENNIS COURT PLAN
- NOTES AND DETAILS
- TECHNICAL SPECS AND DETAILS

Harleman Park
Tennis Court Project
Cornelius, Oregon 97113
Cover Sheet

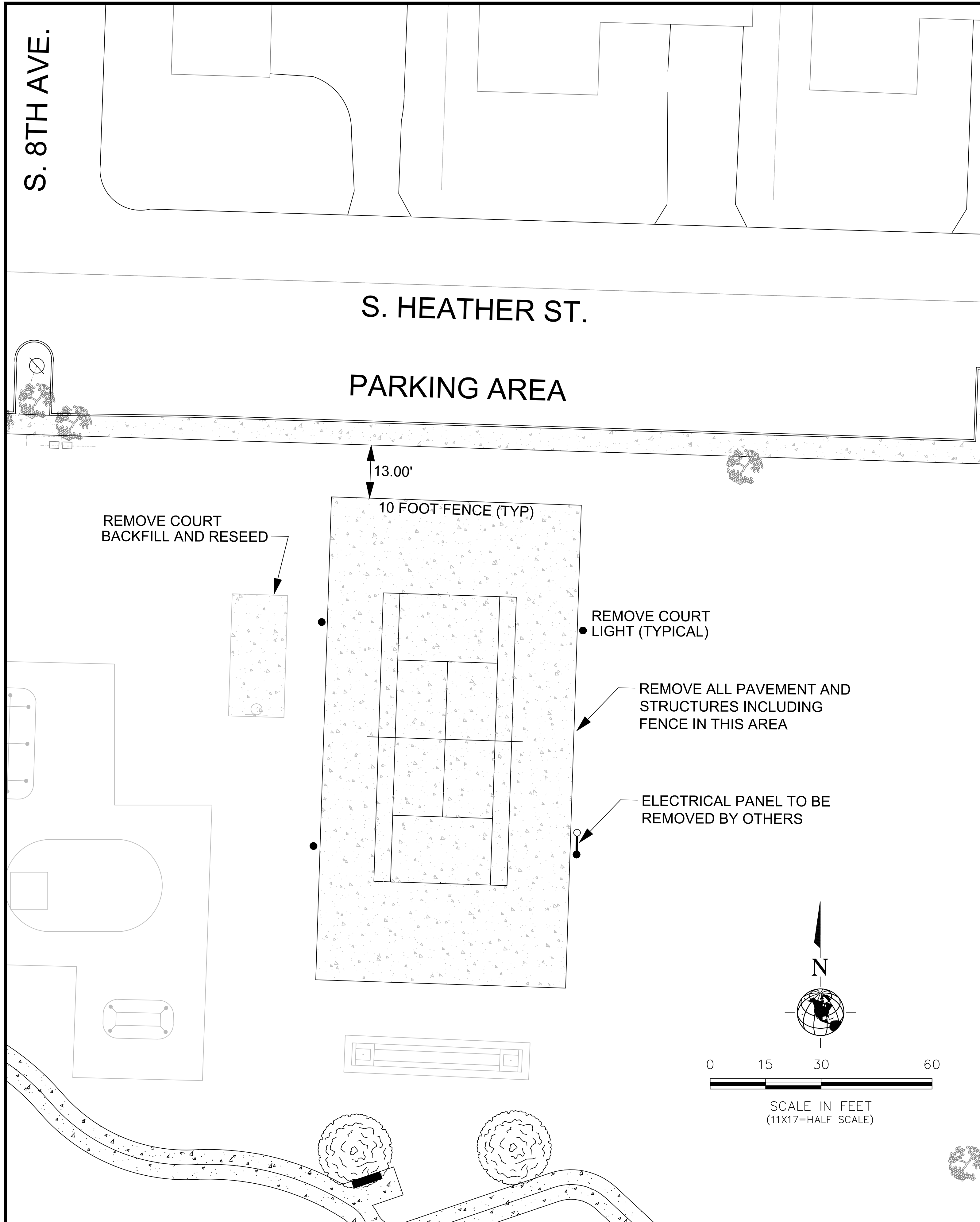


DESIGNED BY: TWK
DRAWN BY: TDG
CHECKED BY: TWK
ISSUE DATE: 2-24-2022

Cornelius
Oregon's Family Town

CITY OF CORNELIUS PUBLIC WORKS
1300 S. KODIAK CIRCLE
CORNELIUS, OR 97113 (503)357-3011

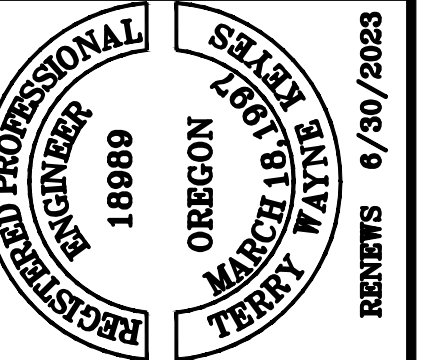
SHEET 1 OF 6



DEMOLITION NOTES:

1. BEFORE REMOVAL AND DIG OUT, CONTACT THE CITY FOR IRRIGATION PLAN AND ELECTRIC PLAN FOR SPRINKLER REPLACEMENT AND COURT LIGHTING REMOVAL.
2. REMOVE 10 FOOT PERIMETER FENCE AND 2-4 FOOT BY 7 FOOT GATES AND SCRAP.
3. REMOVE TENNIS COURT NET AND SCRAP.
4. DIG OUT EXISTING TENNIS COURT AND ALL SURROUNDING PAVEMENT A MINIMUM OF 8 INCHES AND SCRAP.
5. REMOVE AND DISPOSE FOUR (4) LIGHT POLES & BASES. AROUND COURT.
6. CONTRACTOR IS REQUIRED TO MODIFY CURRENT IRRIGATION SYSTEM, AS NEEDED, TO ACCOMMODATE THE NEW COURT LAYOUT.

Harleman Park
Tennis Court Project
Cornelius, Oregon 97113
Demolition Plan



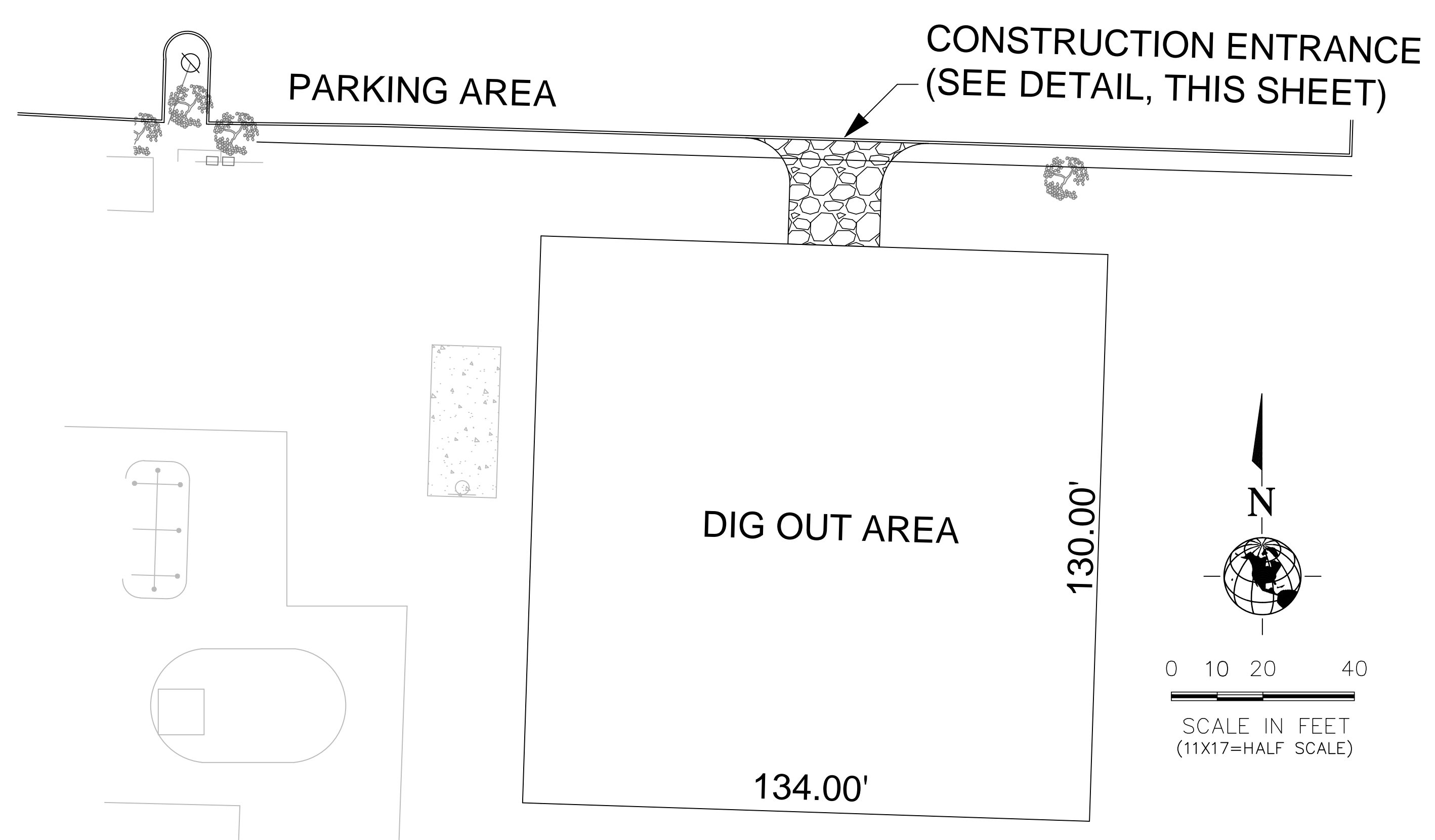
DESIGNED BY: TWK TDG
DRAWN BY: TDG
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ISSUE DATE: 2-24-2022

Cornelius
Oregon's Family Town

ORIGINAL ISSUE: TDC 9/30/19
CITY OF CORNELIUS DEV. & OPERATIONS
1300 S. KODIAK CIRCLE
CORNELIUS, OR 97113 (503)357-3011
Terry Keyes, P.E.
City Engineer

- NOTES:
1. WHEN RAINFALL AND RUNOFF OCCURS, A KNOWLEDGEABLE AND EXPERIENCED PERSON IN THE PRINCIPLES, PRACTICES, INSTALLATION, AND MAINTENANCE OF EROSION AND SEDIMENT CONTROLS WHO WORKS FOR THE PERMITTEE MUST PROVIDE DAILY INSPECTIONS OF THE EROSION AND SEDIMENT CONTROLS AND DISCHARGE OUTFALLS.
 2. CONSTRUCTION ACTIVITIES MUST AVOID OR MINIMIZE EXCAVATION AND CREATION OF BARE GROUND FROM OCTOBER 1 THROUGH MAY 31ST EACH YEAR.
 3. DURING WET WEATHER PERIOD, TEMPORARY STABILIZATION OF THE SITE MUST OCCUR AT THE END OF EACH WORK DAY.
 4. SEDIMENT CONTROLS MUST BE INSTALLED AND MAINTAINED ON ALL DOWN GRADIENT SIDES OF THE CONSTRUCTION SITE AT ALL TIMES DURING CONSTRUCTION. THEY MUST REMAIN IN PLACE UNTIL PERMANENT VEGETATION OR OTHER PERMANENT COVERING OF EXPOSED SOIL IS ESTABLISHED.
 5. ALL ACTIVE INLETS MUST HAVE SEDIMENT CONTROLS INSTALLED AND MAINTAINED AT ALL TIMES DURING CONSTRUCTION. UNLESS OTHERWISE APPROVED, A SURFACE MOUNTED AND ATTACHABLE, U-SHAPED FILTER BAG IS REQUIRED FOR ALL CURB INLET CATCH BASINS.
 6. SIGNIFICANT AMOUNTS OF SEDIMENT THAT LEAVES THE SITE MUST BE CLEANED UP WITHIN 24 HOURS AND PLACED BACK ON THE SITE AND STABILIZED OR PROPERLY DISPOSED. THE CAUSE OF THE SEDIMENT RELEASE MUST BE FOUND AND PREVENTED FROM CAUSING A RECURRENCE OF THE DISCHARGE WITHIN THE SAME 24 HOURS. ANY IN-STREAM CLEAN UP OF SEDIMENT SHALL BE PERFORMED ACCORDING TO THE OREGON DEPARTMENT OF STATE LANDS REQUIRED TIME FRAME.
 7. SEDIMENT MUST NOT BE INTENTIONALLY WASHED INTO STORM SEWERS, DRAINAGE WAYS, OR WATER BODIES.
 8. SEDIMENT MUST BE REMOVED FROM BEHIND ALL SEDIMENT CONTROL MEASURES WHEN IT HAS REACHED A HEIGHT OF 1/3-RD THE BARRIER HEIGHT AND PRIOR TO THE CONTROL MEASURES REMOVAL.
 9. CLEANING OF ALL STRUCTURES WITH SUMPS MUST OCCUR WHEN THE SEDIMENT RETENTION CAPACITY HAS BEEN REDUCED BY 50% AND AT COMPLETION OF PROJECT.
 10. ANY USE OF TOXIC OR OTHER HAZARDOUS MATERIALS MUST INCLUDE PROPER STORAGE, APPLICATION, AND DISPOSAL.
 11. THE PERMITTEE MUST PROPERLY MANAGE HAZARDOUS WASTES, USED OILS, CONTAMINATED SOILS, CONCRETE WASTE, SANITARY WASTE, LIQUID WASTE, OR OTHER TOXIC SUBSTANCES DISCOVERED OR GENERATED DURING CONSTRUCTION.
 12. THE APPLICATION RATE OF FERTILIZERS USED TO REESTABLISH VEGETATION MUST FOLLOW MANUFACTURER'S RECOMMENDATIONS. NUTRIENT RELEASES FROM FERTILIZERS TO SURFACE WATERS MUST BE MINIMIZED. TIME RELEASE FERTILIZERS SHOULD BE USED AND CARE SHOULD BE MADE IN APPLICATION OF FERTILIZERS WITHIN ANY WATER WAY RIPARIAN ZONE.
 13. OWNER OR DESIGNATED PERSON SHALL BE RESPONSIBLE FOR PROPER INSTALLATION AND MAINTENANCE OF ALL EROSION AND SEDIMENT CONTROL MEASURES, IN ACCORDANCE WITH CURRENT CLEAN WATER SERVICES STANDARDS AND STATE AND FEDERAL REGULATIONS.
 14. PRIOR TO ANY LAND DISTURBING ACTIVITIES, THE BOUNDARIES OF THE CLEARING LIMITS, VEGETATED BUFFERS, AND ANY SENSITIVE AREAS SHOWN ON THIS PLAN SHALL BE CLEARLY DELINEATED IN THE FIELD. UNLESS OTHERWISE APPROVED, NO DISTURBANCE IS PERMITTED BEYOND THE CLEARING LIMITS. THE OWNER/PERMITTEE MUST MAINTAIN THE DELINEATION FOR THE DURATION OF THE PROJECT. NOTE: VEGETATED CORRIDORS TO BE DELINEATED WITH ORANGE CONSTRUCTION FENCE OR APPROVED EQUIVALENT.
 15. PRIOR TO ANY LAND DISTURBING ACTIVITIES, THE BARRIERS THAT MUST BE INSTALLED ARE GRAVEL CONSTRUCTION ENTRANCE, PERIMETER SEDIMENT CONTROL, AND INLET PROTECTION. THESE BMPs MUST BE MAINTAINED FOR THE DURATION OF THE PROJECT.
 16. IF VEGETATIVE SEED MIXES ARE SPECIFIED, SEEDING MUST TAKE PLACE NO LATER THAN SEPTEMBER 1ST; THE TYPE AND PERCENTAGES OF SEED IN THE MIX ARE AS IDENTIFIED ON THE PLANS OR AS SPECIFIED BY THE DESIGN ENGINEER.
 17. WATERTIGHT TRUCKS MUST BE USED TO TRANSPORT SATURATED SOILS FROM THE CONSTRUCTION SITE. AN APPROVED EQUIVALENT IS TO DRAIN THE SOIL ON SITE AT A DESIGNATED LOCATION USING APPROPRIATE BMPs; SOIL MUST BE DRAINED SUFFICIENTLY FOR MINIMAL SPILLAGE.
 18. ALL PUMPING OF SEDIMENT LADEN WATER MUST BE DISCHARGED OVER AN UNDISTURBED, PREFERABLY VEGETATED AREA, AND THROUGH A SEDIMENT CONTROL BMP (I.E. FILTER BAG).
 19. THE ESC PLAN MUST BE KEPT ON SITE. ALL MEASURES SHOWN ON THE PLAN MUST BE INSTALLED PROPERLY TO ENSURE THAT SEDIMENT LADEN WATER DOES NOT ENTER A SURFACE WATER SYSTEM, ROADWAY, OR OTHER PROPERTIES.
 20. THE ESC MEASURES SHOWN ON THIS PLAN ARE THE MINIMUM REQUIREMENTS FOR ANTICIPATED SITE CONDITIONS. DURING THE CONSTRUCTION PERIOD, THESE MEASURES SHALL BE UPGRADED AS NEEDED TO MAINTAIN COMPLIANCE WITH ALL REGULATIONS.
 21. WRITTEN ESC LOSS ARE SUGGESTED TO BE MAINTAINED ONSITE AND AVAILABLE TO DISTRICT INSPECTORS UPON REQUEST.
 22. IN AREAS SUBJECT TO WIND EROSION, APPROPRIATE BMPs MUST BE USED WHICH MAY INCLUDE THE APPLICATION OF FINE WATER SPRAYING, PLASTIC SHEETING, MULCHING, OR OTHER APPROVED MEASURES.
 23. ALL EXPOSED SOILS MUST BE COVERED DURING WET WEATHER PERIOD.

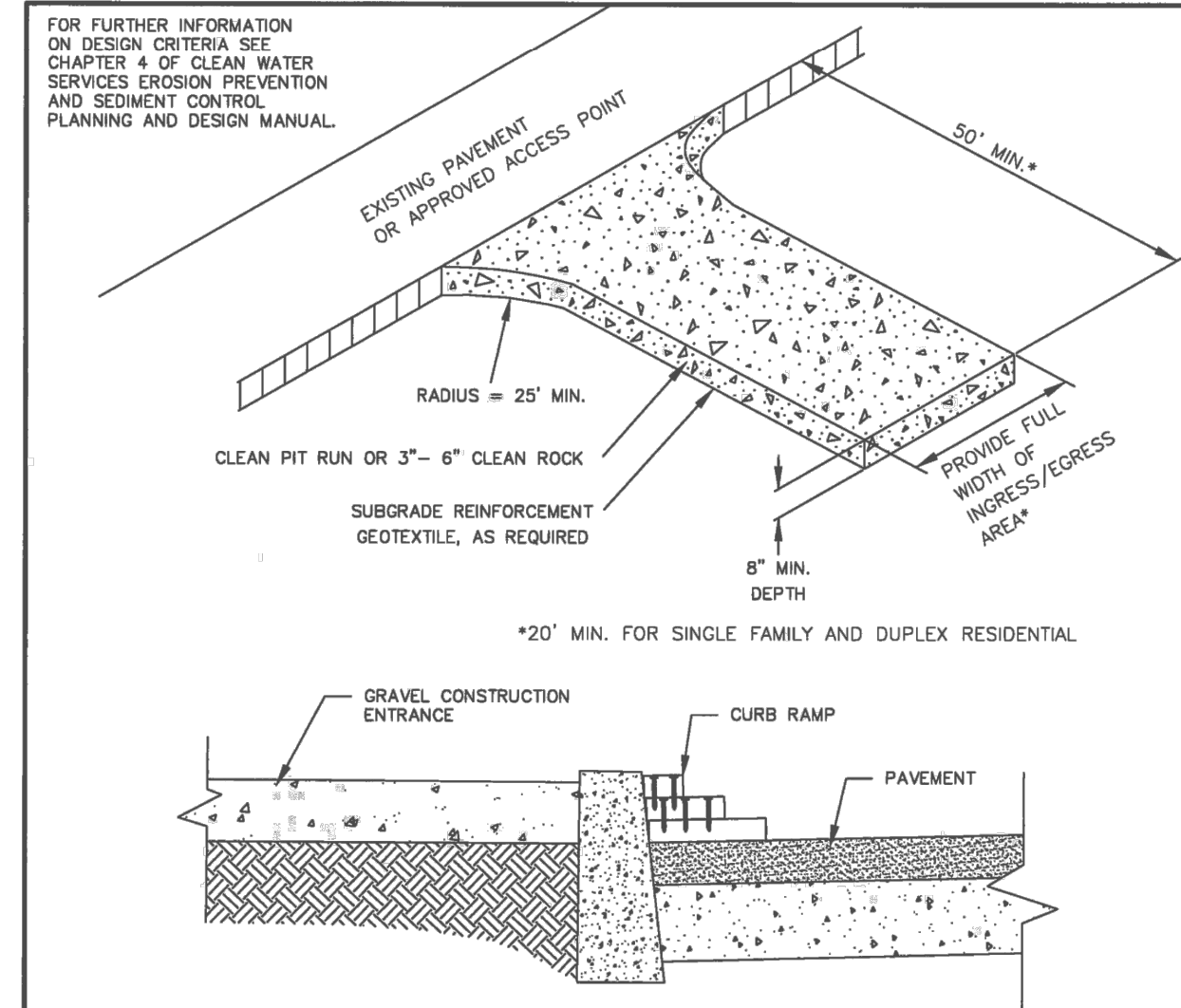
STANDARD EROSION CONTROL NOTES FOR SITES LESS THAN 1 ACRE
 DRAWING NO. 945 REVISED 12-16

EROSION CONTROL PLAN

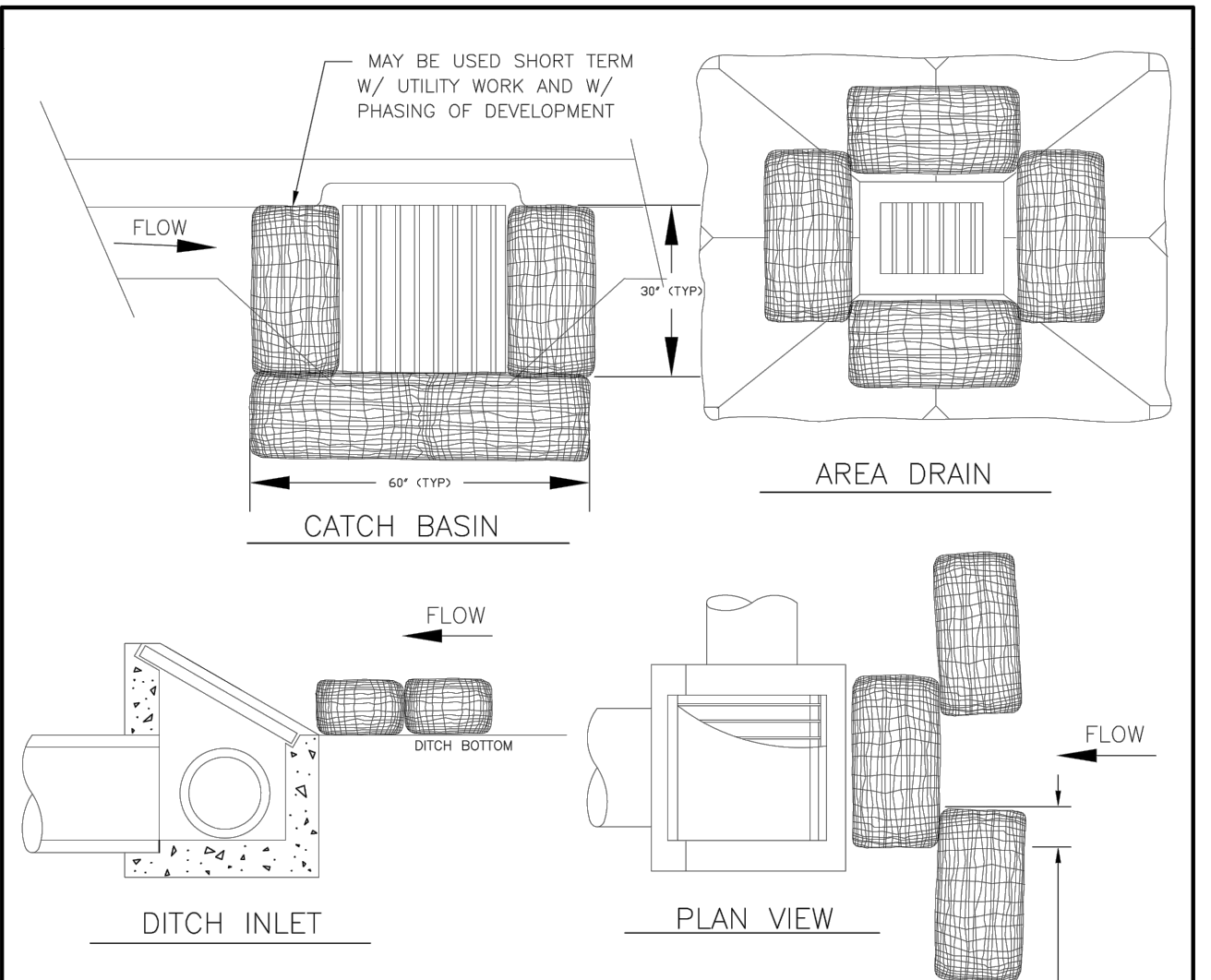
EROSION CONTROL NOTES

1. INSTALL INLET PROTECTION ON ALL CATCH BASIN AND FIELD INLETS THAT MAY RECEIVE RUNOFF FROM DISTURBED AREA.



- NOTES:
1. THE ENTRANCE SHALL BE MAINTAINED IN A CONDITION THAT WILL PREVENT TRACKING OR FLOWING OF SEDIMENT ONTO PUBLIC RIGHT-OF-WAYS. THIS MAY REQUIRE TOP DRESSING, REPAIR AND/OR CLEAN OUT OF ANY MEASURES USED TO TRAP SEDIMENT.
 2. WHEN NECESSARY, WHEELS SHALL BE CLEANED PRIOR TO ENTRANCE ONTO PUBLIC RIGHT-OF-WAY.
 3. WHEN WASHING IS REQUIRED, IT SHALL BE DONE ON AN AREA STABILIZED WITH CRUSHED STONE THAT DRAINS INTO AN APPROVED SEDIMENT TRAP OR SEDIMENT BASIN.
 4. WHERE RUNOFF CONTAINING SEDIMENT LADEN WATER IS LEAVING THE SITE VIA THE CONSTRUCTION ENTRANCE, OTHER MEASURES SHALL BE IMPLEMENTED TO DIVERT RUNOFF THROUGH AN APPROVED FILTERING SYSTEM.
 5. DIMENSIONS:
 SINGLE FAMILY: 20' LONG BY 20' WIDE 8" DEEP OF 3/4" MINUS CLEAN ROCK.
 COMMERCIAL: 50' LONG BY 20' WIDE 3-6" CLEAN ROCK, GOVERNING AUTHORITY MAY REQUIRE GEOTEXTILE FABRIC TO PREVENT SUB-SOIL PUMPING.

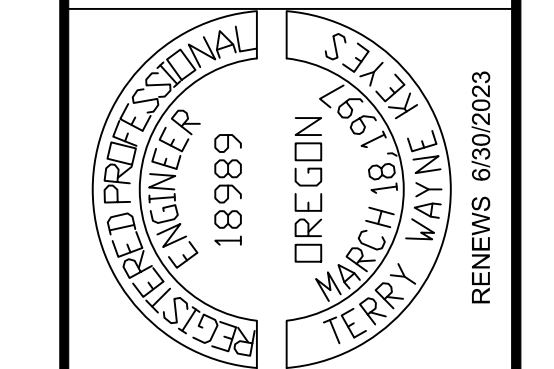
CONSTRUCTION ENTRANCE
 DRAWING NO. 855 REVISED 12-16

- NOTES:
1. ADDITIONAL MEASURES MUST BE CONSIDERED DEPENDING ON SOIL TYPES.
 2. BIO-FILTER BAGS SHOULD BE STAKED WHERE APPLICABLE USING (2) 1"x2" WOODEN STAKES OR APPROVED EQUAL PER BAG.
 3. WHEN USING 30" BIO-BAGS TO PROTECT A CATCH BASIN YOU MUST HAVE 4 BAGS AND THEY SHALL BE OVERLAPPED BY 6".

INLET PROTECTION TYPE 4
 DRAWING NO. 915 REVISED 12-16

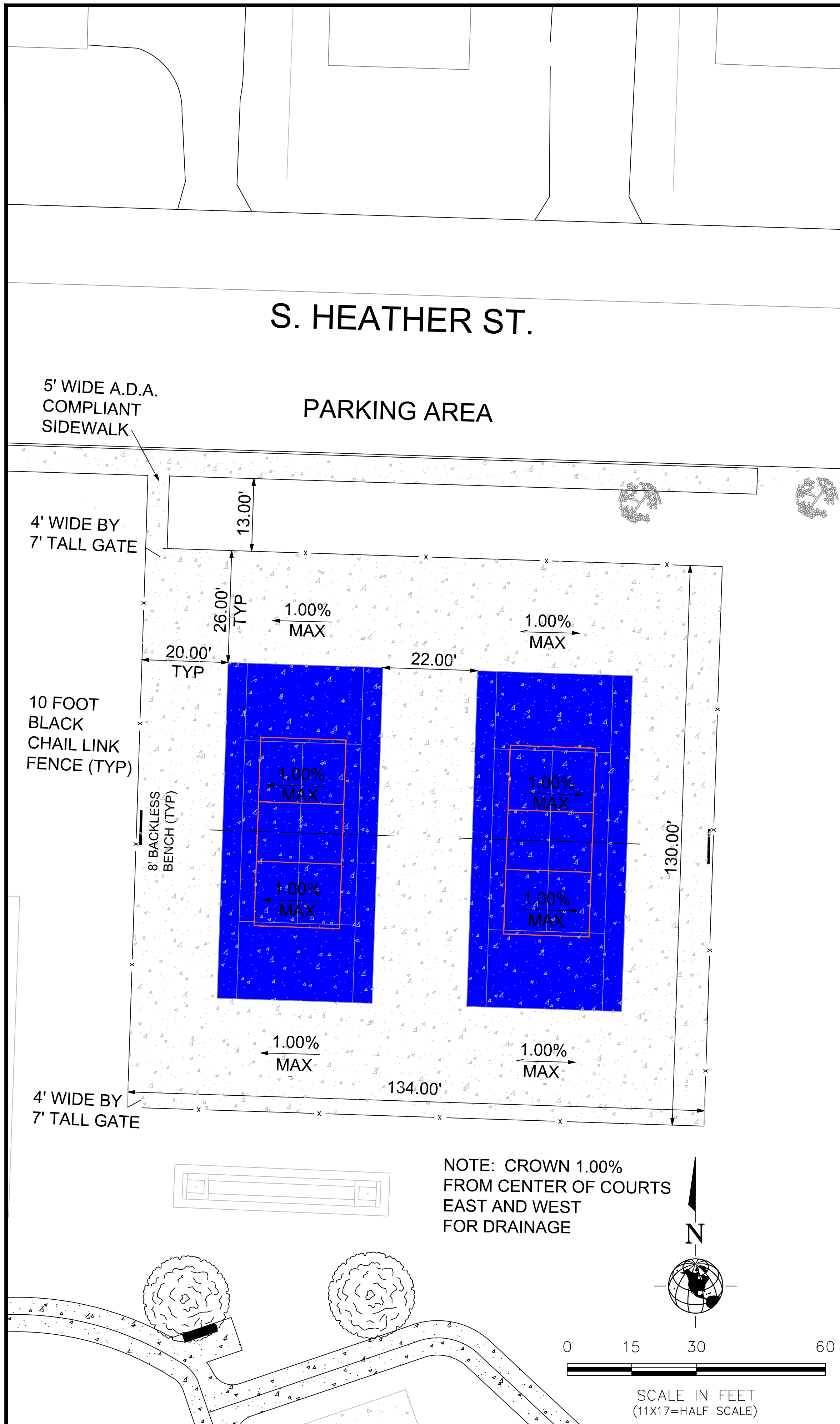

Harleman Park
 Tennis Court Project
 Cornelius, Oregon 97113
 Erosion Control
 Notes, Plan & Details



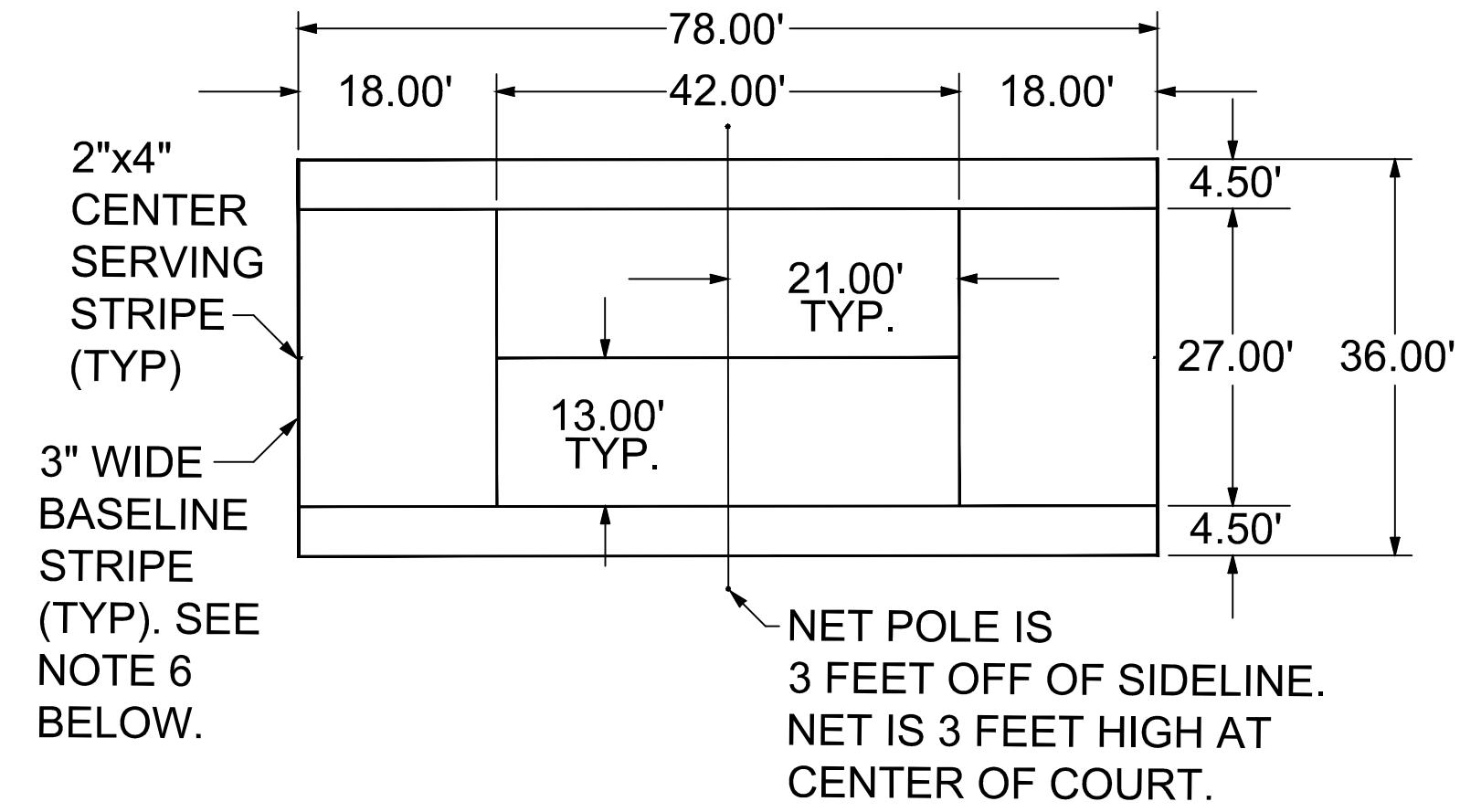
DESIGNED BY: TWK TDG
 DRAWN BY: TDG
 CHECKED BY: TWK
 ISSUE DATE: 2-24-2022

Cornelius
 Oregon's Family Town

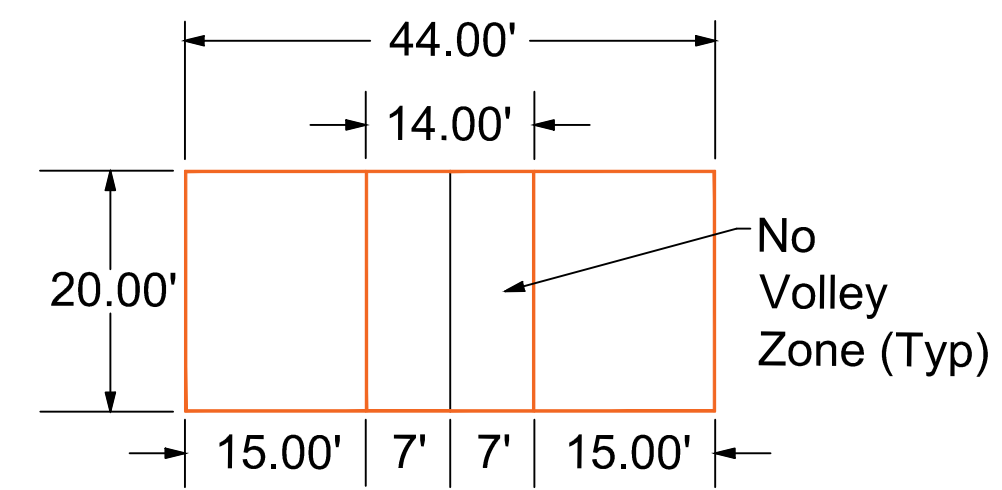
CITY OF CORNELIUS PUBLIC WORKS
 1800 S. KODIAK CIRCLE
 CORNELIUS, OR 97113 (503) 857-3011



TENNIS COURT DIMENSIONS



PICKLEBALL COURT DIMENSIONS



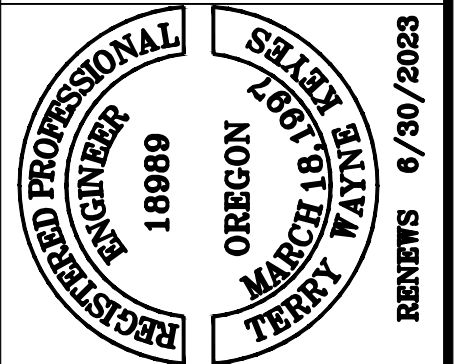
TENNIS COURT NOTES:

1. IMPERVIOUS A.D.A. PATH FROM SIDEWALK TO GATE SHALL BE 2" OF TAMPED 3/4"-0" AND 4 INCHES IMPERVIOUS CONCRETE AT 4000 PSI, 5 FEET WIDE.
2. ALL LINES OF THE COURT SHALL BE 2 INCHES WIDE, WITH EXCEPTION OF THE BASELINES, WHICH SHALL BE 3 INCHES WIDE, FOR CLARITY.
3. BACKLESS BENCH (2) SHALL BE NATURAL STRUCTURES MODEL #10-231, OR APPROVED EQUAL, AS SHOWN ON PLAN. BASES SET IN CPR CONCRETE. 8 FOOT LENGTH.

PICKLEBALL COURT NOTES:

1. ALL PICKLEBALL COURT LINES SHALL BE 2 INCHES WIDE.
2. PURCHASE (2) TENNIS COURT TO PICKLEBALL NET "CONVERTERS." GO TO convertanet.com FOR PURCHASE. SEE DETAIL, SHEET 5 FOR INSTALLATION.

Harleman Park
Tennis Court Project
Cornelius, Oregon 97113
Tennis Court Plan

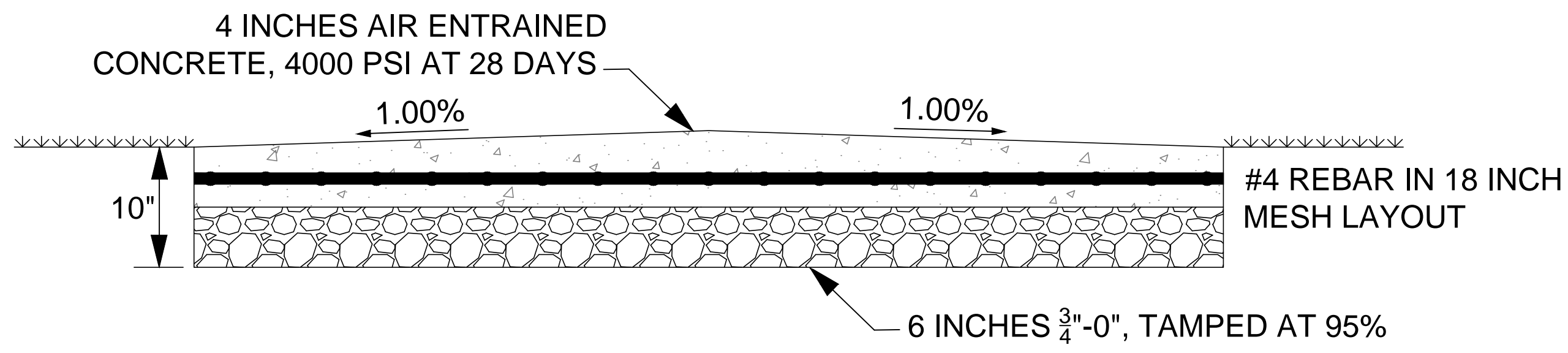


DESIGNED BY: TWK TDG
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Cornelius
Oregon's Family Town

ORIGINAL ISSUE
TDC 19/30/19

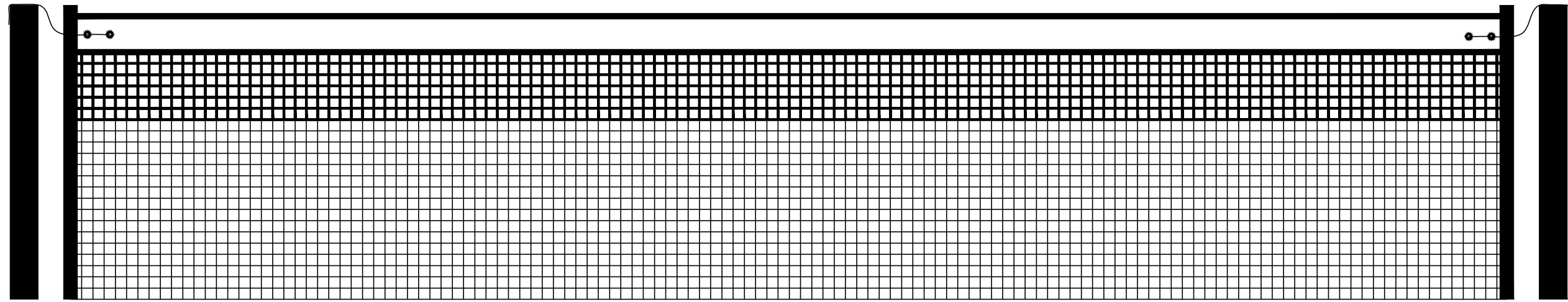
CITY OF CORNELIUS DEV. & OPERATIONS
1300 S. KODIAK CIRCLE
CORNELIUS, OR 97113 (503)357-3011
Terry Keyes, P.E.
City Engineer



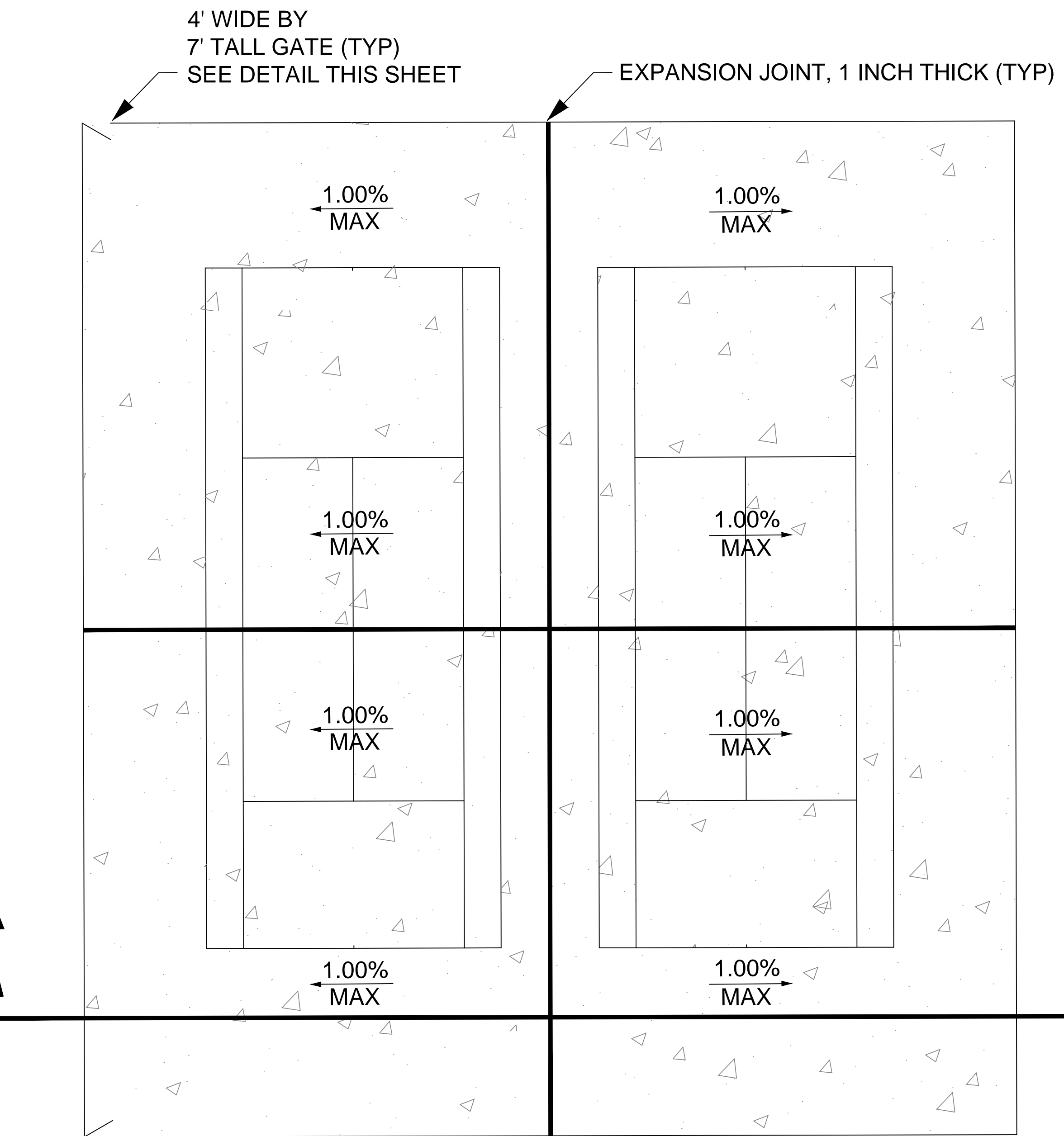
TENNIS COURT CROSS SECTION A-A
N.T.S.

NOTES:

- NET IS 3 FEET 6 INCHES HIGH AT THE POSTS, WHICH ARE 3 FEET OUTSIDE OF "DOUBLES LINE" AND 3 FEET HIGH AT CENTER OF COURT.
- NET SHALL BE "EDWARDS 40 LS DOUBLE CENTER TENNIS NET" OR APPROVED EQUAL. POSTS SHALL BE "COURTMASTER ROUND POSTS WITH EXTERNAL WIND" MECHANISM. SKU#100-247BK
- SEE COURT LAYOUT, SHEET 4, FOR INSTALL LOCATION.



TENNIS COURT NET DETAIL
N.T.S.



TENNIS COURT CONCRETE LAYOUT
N.T.S.

COURTMASTER ROUND POST / EXTERNAL WIND
Quality Net Post constructed from steel and coated inside & out for long lasting durability.

- 2-7/8" OD Steel constructed Posts
- Aluminum reel is equipped with ratchet guard for smooth and easy adjustment and includes removable handle
- Deadend post has cable cleat, welded setting collar and welded lacing rods for a professional installation
- Brass pulley on each cap
- Available in Green & Black

877.442.7878
www.nettruo.com

PRODUCT SPECIFICATIONS

Length: 64" Overall length
Diameter: 2-7/8" Round
Construction: Schedule 40 Steel, Coated inside & outside with hot zinc to prevent rust, then powder coated
Finish: Deadend Post side has cable cleat
Cable Hooks: Welded Lacing Rods on both post
Lacing Rod: Brass pulley on both posts
Pulley: Aluminum reel is equipped with ratchet guard
Reel: Welded setting collars
Collars: Green & Black
Colors: Green & Black
Shipping Weight: 67 lbs.

CONVERT-a-NET
"Tennis to Pickleball made easy"
MADE IN AMERICA

How to Install your Convert-a-Net

1. Run one end (with the stop adjuster) of the horizontal strap through the buckle of the Convert-a-Net strap. Be sure to run 2 of the 3 rings through the buckle as well. Leave 1 ring on the opposite side of the buckle to connect to side strap too.

2. Connect the Convert-a-Net strap to the center eye hook on the tennis court and push down on the net to attach the Convert-a-Net over setting center strap.

3. Take one end of the horizontal strap and wrap and secure it around the net and post connecting it to your 1st string.

4. Loosen the other end of the horizontal strap and wrap and secure it around the opposite end of the center post, using the string. Then put on the adjuster to tighten.

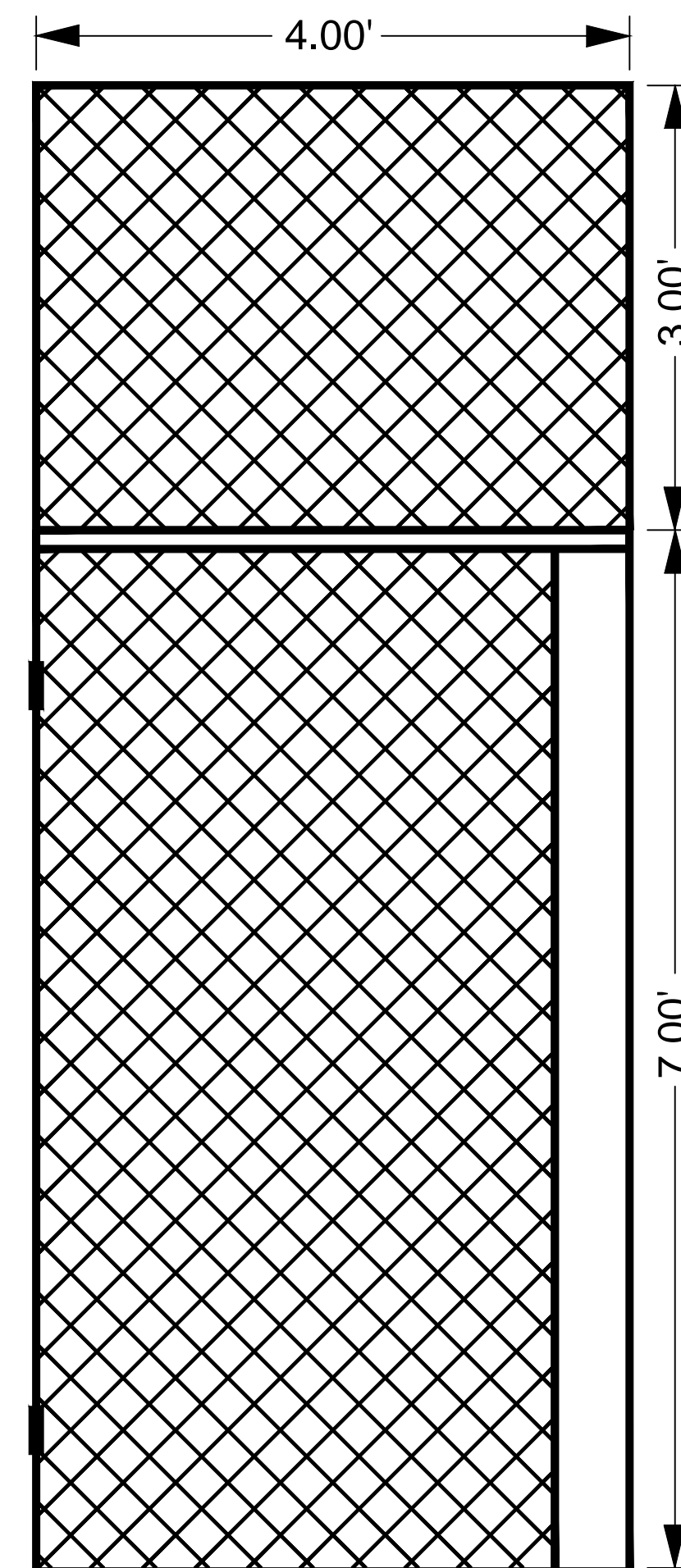
5. Loosen either side strap and connect it to a string about 2" from inside the angles side the other side strap.

6. Use your ratcheting tape to raise or lower the net and adjust your straps as needed.

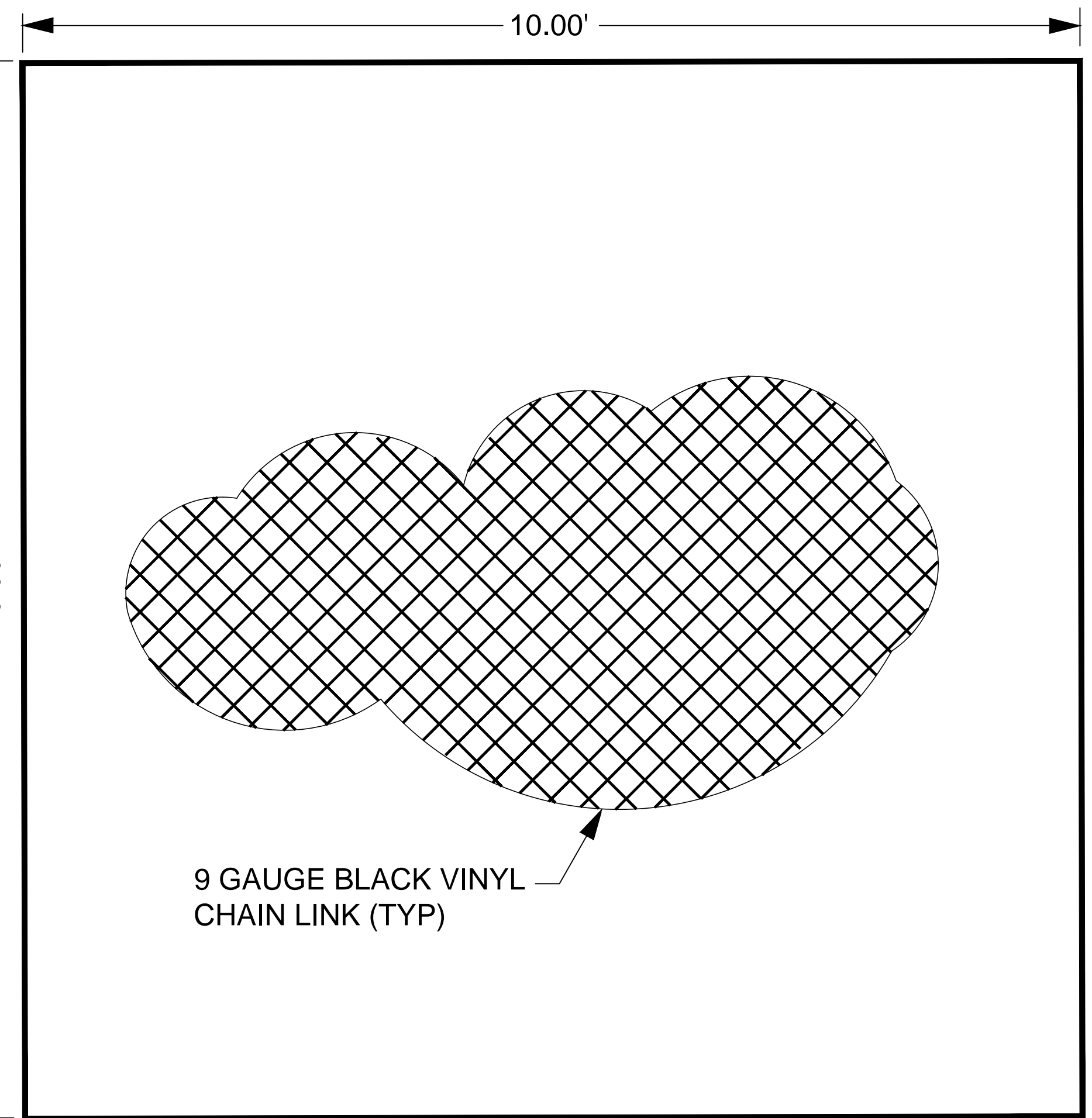
7. Secure the bag on one of the side straps to put your keys or phone in it. This will help avoid tangling your Convert-a-Net when you are done playing.

*Have spare, one, valley, smooch and smile... But most of all have FUN!!

YOU CAN ALSO VIEW THESE INSTRUCTIONS AT: <https://youtu.be/6W6M9K9M>

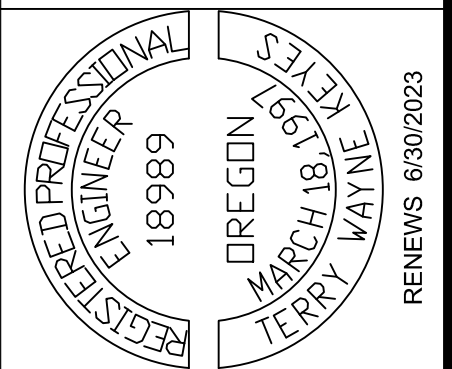


GATE DETAIL
N.T.S.



FENCE POST DETAIL
N.T.S.

Harleman Park
Tennis Court Project
Cornelius, Oregon 97113
Notes & Details



DESIGNED BY: ITWK
DRAWN BY: TDG
CHECKED BY: TDG
ISSUE DATE: 2-24-2022

Cornelius
Oregon's Family Town

CITY OF CORNELIUS PUBLIC WORKS
1300 S. KODIAK CIRCLE
CORNELIUS, OR 97113 (503) 357-3011

Technical Specifications

Section 1 – General

- A. These specifications are derived from the American Sports Builders Association (ASBA) Guidelines for Tennis Court Construction.
- B. The work to be performed under this specification includes all labor, equipment, materials and supplies necessary for the installation of the tennis courts included in this contract.
- C. Where conflicts exist between these specifications and other aspects of the plans and General Specifications, the City's Project Manager shall be consulted for direction.
- D. Completion - Upon completion, the contractor shall insure proper removal of all construction debris, surplus materials, empty containers and wash water, and shall leave the site in a condition acceptable to the owner. The court is to be left secure so as to prevent vandalism.

Section 2 – Site Preparation

- A. Unless otherwise specified, topsoil and other unsuitable materials at the site, and to a minimum distance of 5' beyond the surfaced area, should be removed in such a manner as to minimize disturbance of the remaining subgrade soils, and to facilitate placement of embankment materials and/or base course materials. Topsoil should be stored at the site and reused for landscaping at the completion of construction.
- B. Backfill of all trenches should be granular material, placed in layers not to exceed 6" in thickness, compacted with appropriate compaction equipment to 95% of the maximum density determined by ASTM Method D 1557. This compaction is necessary to minimize the risk of subsequent settlement of the surface over the trench.
- C. When trenching or drain tile is used under existing permanent pavement, it is required that this area be compacted to 100% of the maximum density determined by ASTM Method D 1557. This method will reduce the amount of settlement that may occur in these trenches which will reflect on the final surface.
- D. Embankment is fill material necessary to raise the grade at the site, after removal of unsuitable materials noted in Section 2A, to provide the surface on which to place the base course for the tennis court.

While well-graded granular soil is preferred for embankment fill, normally locally available soil is used for economic reasons. The material should be free of organic or expansive material, and of particles greater than 1 1/2" in dimension. It should be placed in lifts not to exceed 6" in thickness and compacted to a minimum density of 95% of D 1557 density. The water content of the fill should be reduced by aeration or increased by adding water, as necessary to achieve the required compaction.

Where the natural soil at the bottom of the subbase course is stable, as evidenced by stability under construction equipment, hand auger or other exploration, base course materials can be placed on this soil. Soft clay and plastic soils should be appropriately stabilized.

Section 3 – Concrete Court Construction

- A. Slope and Elevation Requirements - All excavating, filling and grading requirements and compacting work of the subbase should be performed so that the finished subgrade is 4"-6" above the surrounding ground and slopes not less than 0.83% (1:120) and not more than 1% (1:100). Each court must slope in a true plane, preferably from side to side (but from end to end or from corner to corner are also acceptable), or in the shortest direction for good drainage and water runoff. The court should never be sloped from the net line to the baseline, from the baseline to the net line, from the sides to the centerline or from the centerline to the sides.
- B. Fencing and Posts - Fence posts, net posts, sleeves and center anchor should be installed prior to or during concrete placement. Fencing should be completed prior to surfacing.
- C. Moisture/Vapor Barrier - As with all concrete construction, a moisture/vapor barrier, consisting of polyolefin (15 mil. minimum thickness) should be installed prior to installation of any steel and/or cables. Overlap polyolefin sheets at least 6" and tape joints. Once in place no vehicular traffic should be allowed on the moisture/vapor barrier nor any other object which could puncture the barrier or otherwise compromise the integrity of the surface. All concrete should be pumped, not driven onto the court. Excessive loads at any time are unacceptable.
- D. Cement - Cement (Type 1 or 1A) should conform to one of the Standard Specifications for Portland Cement, ASTM C 150 or Specifications for Blending Hydraulic Cements, ASTM C 595, excluding slag cements Types S and SA. Do not use curing compounds.
- E. Air Entrainment - Air entrainment by total volume of concrete should be: 4 to 6% for 1 1/2" maximum size coarse aggregate, 5 to 7% for 3/4" or 1" maximum size coarse aggregate, 6 1/2 to 8 1/2% for 3/8" or 1/2" maximum size coarse aggregate.
- F. Aggregate - Aggregate should conform to Standard Specifications for Concrete Aggregates ASTM C 33. For concrete work that is 5" thick, the nominal size of the coarse aggregate should not exceed 1 1/2" and for concrete work that is 4" thick, the nominal size of the coarse aggregate should not be greater than 1". Fly ash or other additives are not acceptable.
- G. Thickness of Concrete - Concrete work should be 4" thick.
- H. Reinforcement - Steel reinforcement bars should conform to Standard Specifications for Deformed and Plain Billet-Steel Bars for Concrete Reinforcement ASTM A 615, Grade 60 or 40. For concrete that is 4" thick, the bars should be No. 5 size in both directions at 15" on center. Bars should be accurately positioned at mid-depth, terminating 2" away from edges and joints, and should be adequately supported by chairs with sand plates

provided to prevent bar supports from sinking into the subbase. Bars should be lapped at 18" and should also be securely tied or otherwise secured so that there is no possibility of displacement when concrete is placed. At the time of concrete placement, reinforcement should be free of loose, flaky rust and other coatings or films that could interfere with bonding to the concrete.

- I. Forms and Screeds - Forms and screeds should be set accurately and secured to prevent settlement or movement during placing of concrete. Forms should remain in place until the concrete has taken its final set.
- J. Joints - A non-extruded expansion joint filler material 3/4" thick should be installed at the net line if the two halves of the court are cast separately, and between courts if there is more than one court. The bottom edge of the filler material should extend to or slightly below the bottom of the slab; the top edge should be held 7/8" below the surface of the slab by a tack strip of wood, its top flush with the finished slab surface. Edges of joints should be tooled with an edging tool having a radius of 1/4". After the concrete has cured, the tack strips should be removed and the joints sealed with an elastomeric sealing compound to within 1/8" of the surface. If the two halves of the court are cast separately, a concrete beam 6" thick and 18" wide should be cast in a trench across the center of the court. This beam is for support of the two slabs at the expansion joint under the net. The top of the beam should be at the elevation of the bottom of the court slab. The beam should be cast a day or two in advance of the court concrete. Bonding between the beam and the court concrete should be prevented by painting the top of the beam with an asphaltic or other bond preventing material. This beam is thickened to 12" at the net posts to provide additional stability for the posts. CAUTION: All working joints may close and reopen.
- K. Concrete Proportioning and Mixing - The concrete should have a compression strength of not less than 3,000 psi at the 28th day after casting. The minimum cement content for finish-ability should be not less than 470 lbs. per cubic yard for 1 1/2" maximum size coarse aggregate, 520 lbs. for 3/4", 590 lbs. for 1/2" and 610 lbs. for 3/8" maximum size coarse aggregate. In freeze/thaw environments, the minimum cement content should not be less than 560 lbs. per cubic yard. The slump should not be more than 4". Ready-mixed concrete should be mixed and delivered in accordance with ASTM C 94, Specification for Ready-Mixed Concrete.
- L. Placing and Finishing - At least a full half court should be placed in one continuous operation without intervening joints of any kind. Uninterrupted concrete placing operations without intervening joints should be limited to one full court with continuous reinforcement. Concrete should be spread, consolidated, screeded, bull-floated and finished in accordance with Section 7.2 of ACI (American Concrete Institute) Standard 302, Recommended Practice for Concrete Floor and Slab Construction. When concrete is sufficiently set to withstand foot pressure with only about 1/4" indentation and the water sheen has left the surface, the slab should be uniformly finished by power floating and troweling. The final finish texture should be a medium broom finish unless otherwise specified by the surface manufacturer.
- M. Surface Tolerances - The finished surface of the court should not vary more than 1/8" in 10' when measured in any direction.

N. Curing - Immediately after finishing, the concrete should be kept continuously moist for 7 days by covering with polyethylene film, waterproof curing paper, sprinkling, ponding or other acceptable coverings. Curing time should be in accordance with surface system manufacturer's recommendations. No curing compounds should be used.

New concrete shall cure for twenty-eight days prior to application of any surfacing materials.

O. Concrete shall have a medium broom finish.

Section 4 – Court Surfacing

- A. The area inside the tennis court lines shall be blue. The area outside the tennis court lines as green in color.
 - B. Courts shall be cleaned using a stiff bristle broom and gas-powered blower or water-based pressure spray unit capable of generating 2500 psi at the nozzle tip, to remove all dirt and debris.
 - C. Products - Court surfacing materials shall be Novacrylic® as manufactured by Nova Sports U.S.A., 6 Industrial Rd., Bldg. #2., Milford, MA 01757 (800-USA-NOVA) or approved equal.
 - D. All coatings shall be pure acrylic, containing no asphaltic or tar emulsions, nor any vinyl, alkyd or non-acrylic resins. The color system shall be factory-mixed compounds requiring only the addition of water at the jobsite except for the addition of sand to Novasurface®. All materials shall be delivered to the jobsite in sealed containers with the manufacturer's label affixed.
 - E. Outside Temperature During Application and Curing - Apply coatings only when ambient temperature is fifty degrees (50°F) and rising, and the surface temperature is not in excess of one hundred forty degrees (140°F).
- All NOVACRYLIC® coatings are waterborne and cannot cure in cold temperatures or when subject to moisture. Care should be taken not to apply coatings when rain is forecast or sudden drop of temperature is expected. Climatic conditions such as very cool evenings and high dew points dictate that work should be completed early in the day so the coatings can be exposed to enough warm sunlight to form a film before sunset. The opposite applies during times of high heat, low humidity and drying breezes: under these conditions, work very early in the morning or very late in the day. If the product seems to be drying too fast in hot weather, mist the pavement with water to make the application easier. Care must be taken to allow each application to dry thoroughly prior to recoating.

- F. Contractors must notify the City's Project Manager of all applications, 48 hours prior to installation.
- G. Etch concrete with a Phosphoric Acid solution; allow to set and flush completely with water.

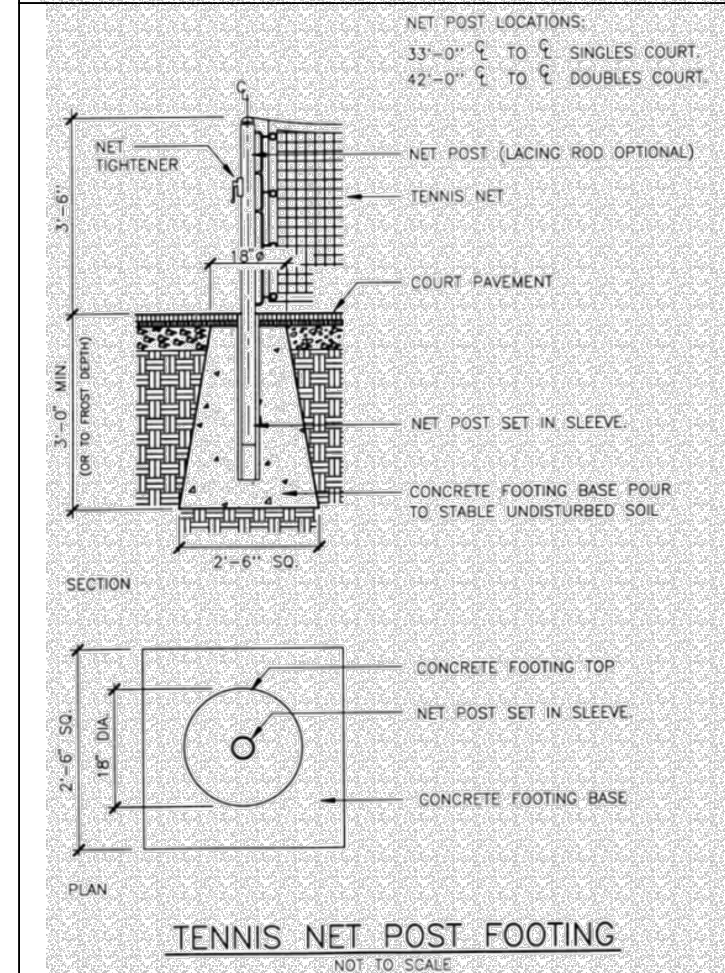
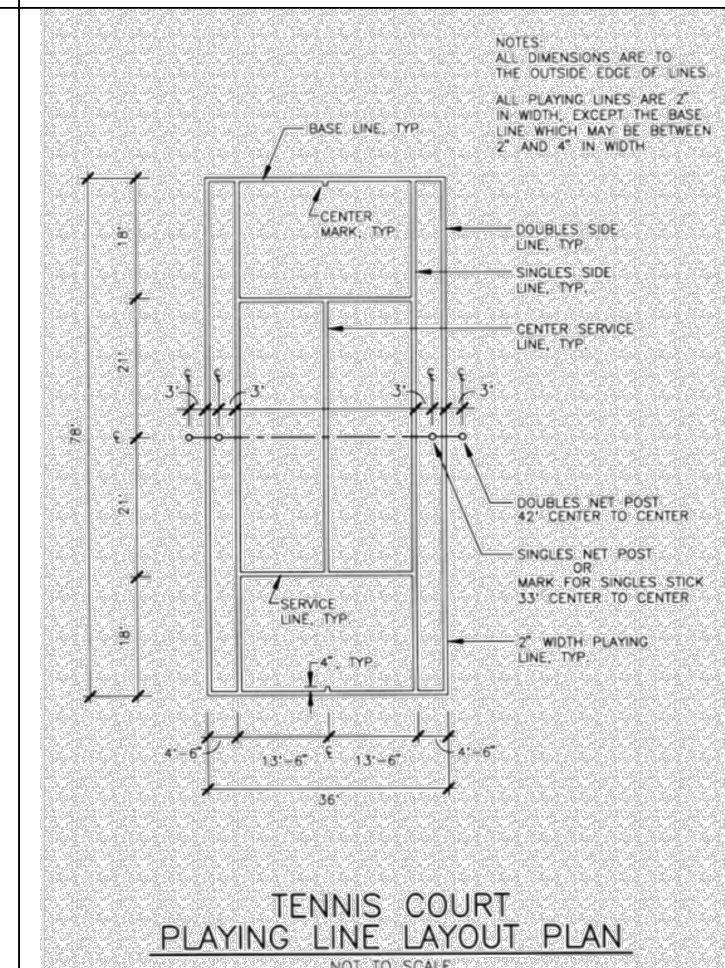
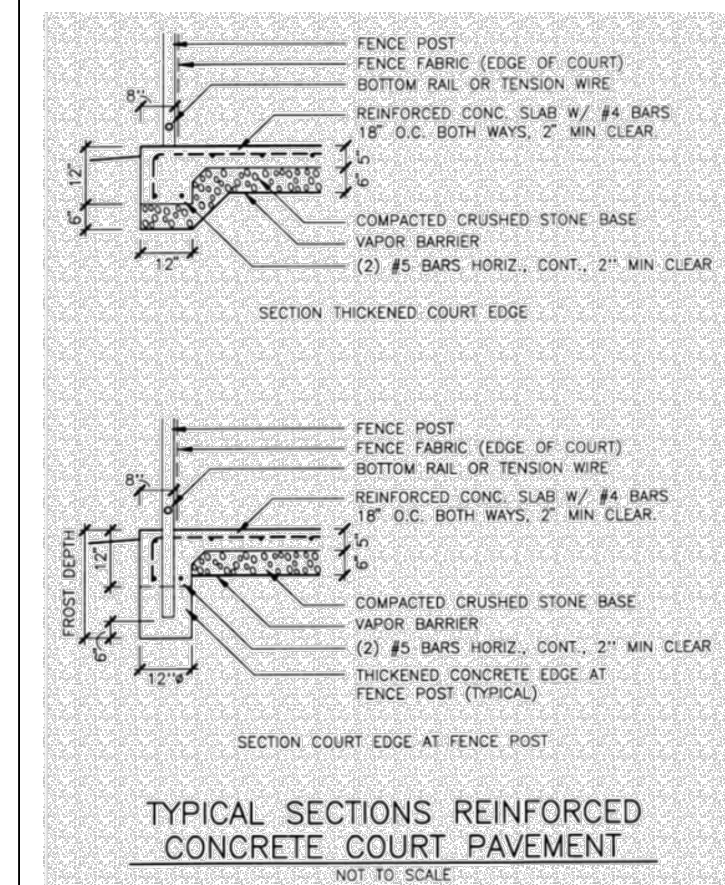
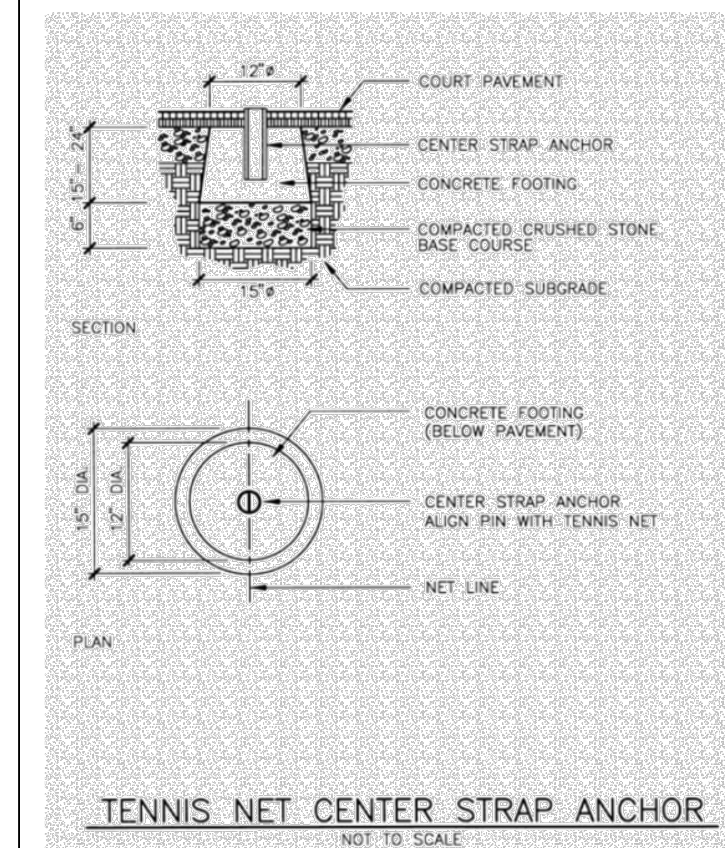
H. The surface to be coated shall be inspected and made sure to be free of grease, oil, dust, dirt and other foreign matter before starting work on the surface coatings.

- I. The surface shall be flooded. Any ponding water remaining that is deep enough to cover the thickness of a five-cent piece shall be corrected using a patch mix consisting of Novabond®, 50-mesh sand and Portland cement, as per manufacturer's directions. Depressions must be primed with a 50% dilution of Novabond® and water prior to patching.
- J. Application shall proceed only if the surface is dry and clean and the temperature is at least fifty degrees (50°F) and rising, and the surface temperature is not in excess of one hundred forty degrees (140°F). Do not apply coatings when rain is imminent.
- K. Each coat in this system must dry completely before next application. Between each coat, inspect entire surface. Any defects should be repaired. Scrape surface to remove any lumps, and broom or blow off all loose matter.
- L. Apply one (1) coat of CP761® Concrete Primer, diluted one (2) parts CP761® to (1) part clean water. Application may be with squeegee, broom or roller. Allow CP761® to dry thoroughly.
- M. Using a neoprene rubber squeegee, apply one (1) coat of Novasurface® acrylic resurfacer, diluted with one (1) part clean water, to two (2) parts Novasurface®. Clean, bagged sand shall be incorporated into the diluted Novasurface® at the rate of five (5) to ten (10) lbs. per gallon. Sand gradation shall be 50 to 60-mesh. Allow application to dry thoroughly.
- N. Using a neoprene rubber squeegee, apply two (2) coats of Novaplay®. Allow each application to dry thoroughly. A small (not to exceed 8 fl. oz per gal.) quantity of water may be used in diluting these coatings, only if coatings are drying too rapidly. Permission of the City's Project Manager shall be obtained before adding additional water.

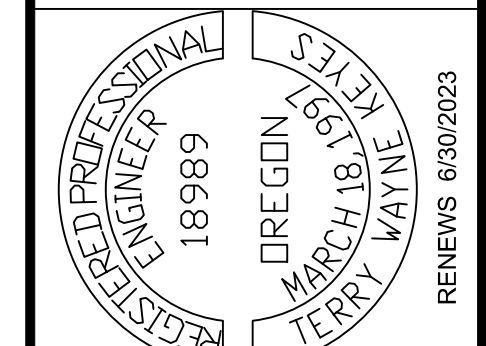
Section 5 – Stripping and Net Posts

- A. Upon completion and acceptance of the surface in Section 4, the Contractor shall prepare and paint lines for tennis and pickleball.
- B. Tennis lines shall be white and pickleball lines shall be red or orange and determined by the City's Project Manager.
- C. All lines are to be applied by painting between masking tape with a paintbrush or roller.
- D. Prime masked lines with Seal-A-Line®. Allow application to dry.
- E. Paint lines with Novatex® textured line paint. Allow application to dry.

- F. Remove masking tape immediately after lines are dry.
- G. Protect adjacent areas and structures (fences, posts, sidewalks, buildings, etc.), which are not to be coated. In the event that coatings are applied to above, remove immediately before drying is complete.
- H. Stripping for the courts are shown in the plan set.
- I. All lines should be 2" in width, except the base line which shall be 3" in width. All measurements should be to the outer edge of the lines except the center line and the center mark which should be on the center line of the court.
- J. Tolerance - The lines should be laid out and applied as close to the exact measurements as is possible within the limitations of the surface on which they are being applied. At no time should the playing lines or the line dimensions vary more than 1/4" from the exact measurements, unless the court surface won't allow (natural grass moves, artificial grass stretches, etc.).
- K. Net Posts - Net posts should be set 3' (91m) outside the side line, which is 42' (12.802m) apart, center to center for doubles play, and 33' (10.058m) apart, center to center for singles play. (Please refer to the diagram.) The top of the net at the inside face of the posts or supports when used to support a net for singles play on a doubles court should be exactly 42" (1.067m) above the court surface. There should be no obstruction above the top of the net at any point, including at the post.



Harleman Park
Tennis Court Project
Cornelius, Oregon 97113
Technical Specs & Details



DESIGNED BY: TWK
DRAWN BY: TDG
CHECKED BY: TDG
ISSUE DATE: 2-24-2022

Cornelius
Oregon's Family Town

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