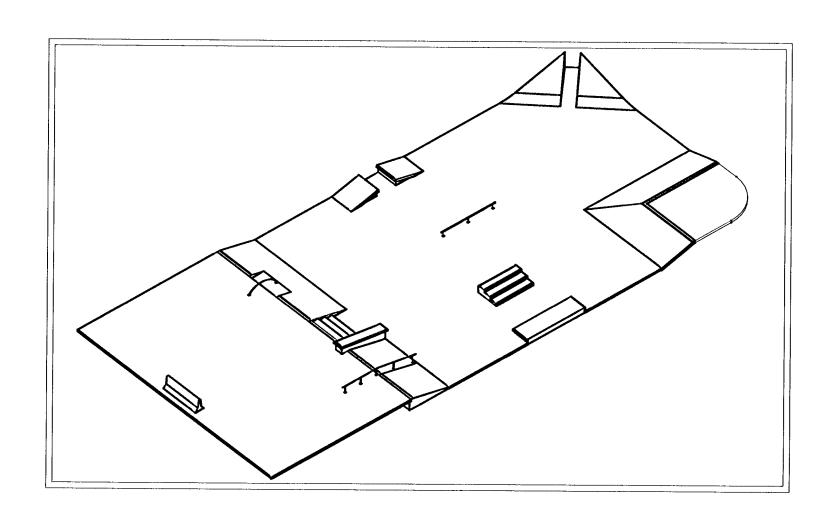
CONSTRUCTION PLAN SET PREPARED FOR LEE STREET SKATE PARK

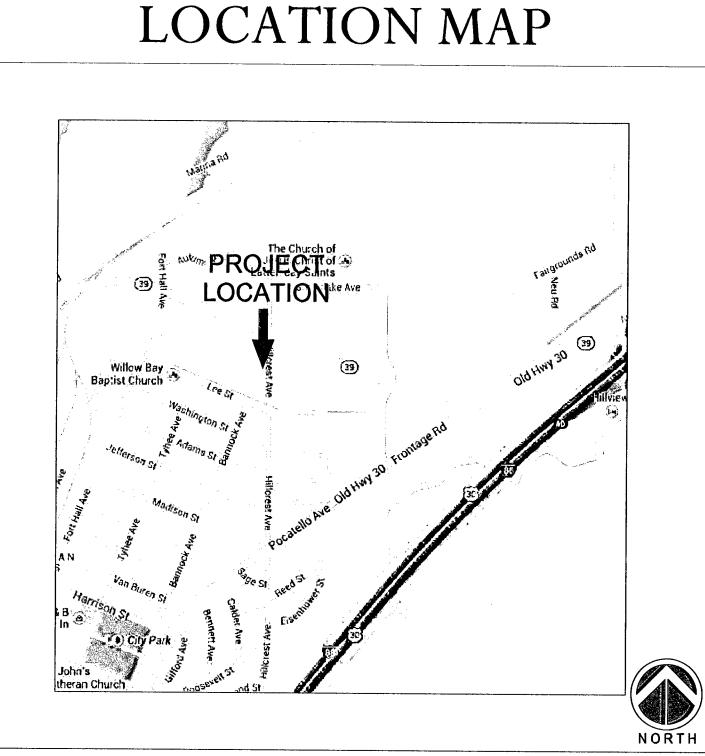


AMERICAN FALLS, ID

PLAN DATE IDENTIFIER
July 18, 2013

DATE OF LAST REVISIONS

PROJECT LOCATION PROJECT LOCATION Talls Cry Park Of Street Control of Street Cont



PROJECT INFORMATION

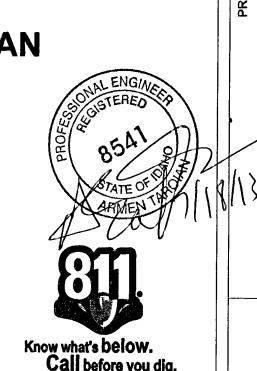
OWNER/ DEVELOPER
CITY OF AMERICAN FALLS
550 N. OREGON TRAIL
AMERICAN FALLS, IDAHO 83211

SITE ADDRESS
57 HILLCREST AVE.
AMERICAN FALLS, ID 83211

SKATE PARK FOOTPRINT 5485 SQ.FT.

SHEET INDEX

- TITLE SHEET
- 2 SITE PLAN
 3 SPECIFICATIONS
- 3 SPECIFICATIONS
- 4 PRE-CAST LAYOUT PLAN
- 5 INFORMATION PLAN
- 6 LAYOUT PLAN
- 7 PRE-CAST FOOTING PLAN
- 8 GRADING & DRAINAGE PLAN
- 9 CONSTRUCTION DETAILS
- 10 CONSTRUCTION DETAILS

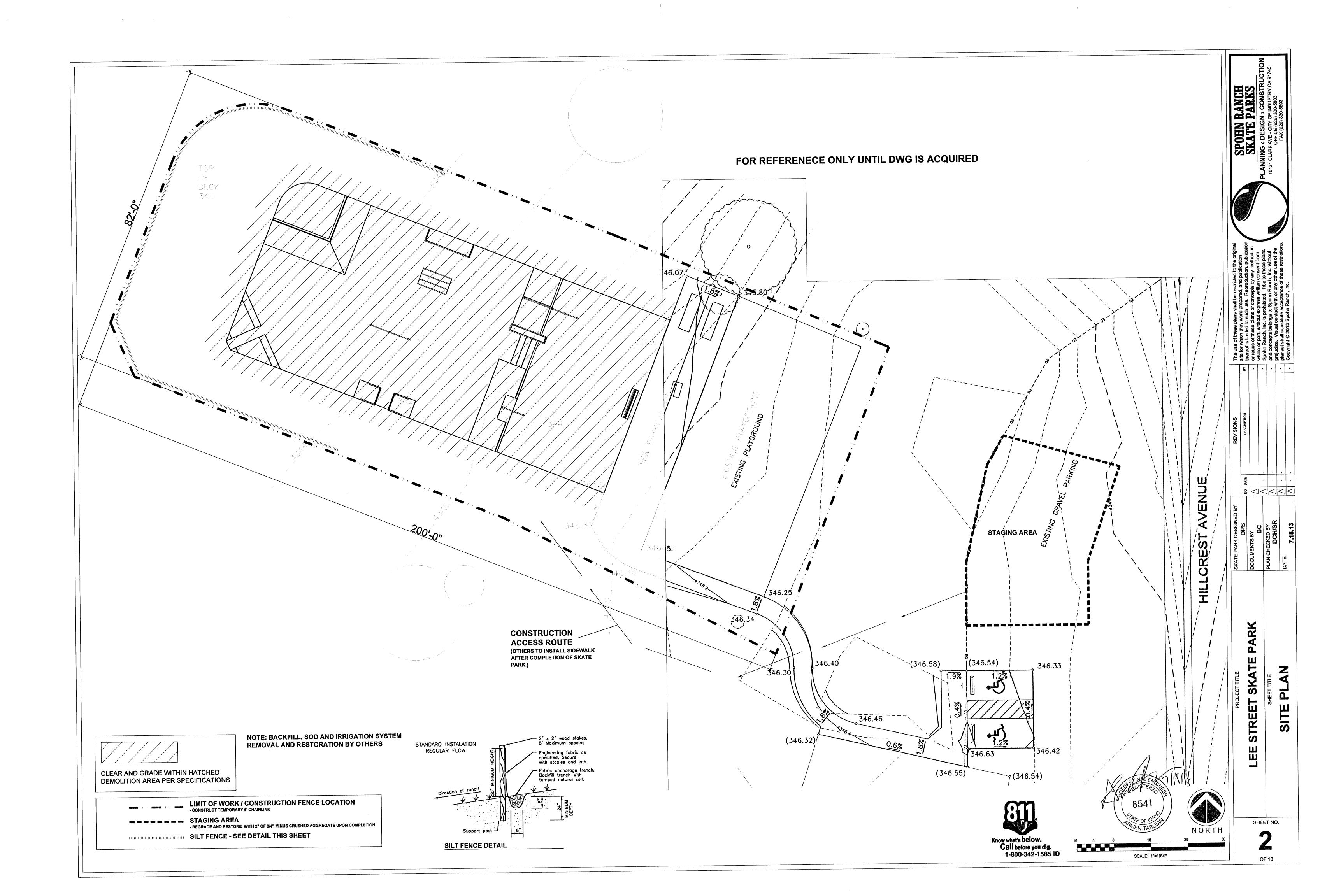


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GENERAL NOTES

- 1. THESE GENERAL STRUCTURAL NOTES APPLY UNLESS NOTED OTHERWISE ON STRUCTURAL DRAWINGS
- 2. COMPLY WITH CURRENT LOCAL BUILDING CODE
- 3. COMPLY WITH ACI 301, "SPECIFICATION FOR STRUCTURAL CONCRETE," UNLESS MODIFIED BY THE REQUIREMENTS OF THE CONTRACT DOCUMENTS.
- TESTING SERVICES: COORDINATE THE FOLLOWING TESTING WITH THE OWNER SELECTED TESTING AGENCY (IF REQUIRED BY THE PROJECT SPECIFICATIONS):
- A. MATERIAL EVALUATIONS TESTS FOR CONCRETE MIX, AGGREGATE BASE, SUBGRADE, AND STRUCTURAL FILL.
- B. INSPECTION OF STRUCTURAL FILL PLACEMENT AND COMPACTION.
- C. INSPECTION OF FINAL SUBGRADE.
- D. BASE MATERIAL COMPACTION TEST FOR EVERY 1000 S.F. OF CONCRETE FLATWORK IN SKATEPARK AREA TO ENSURE 95% COMPACTION IN ACCORDANCE WITH CIVIL ENGINEERING SPECIFICATIONS AND TESTING AGENCY RECOMMENDATIONS.

- THE STRUCTURAL SHOP DRAWING REVIEW IS INTENDED TO HELP THE SKATEPARK DESIGNER VERIFY THEIR DESIGN CONCEPT. THIS REVIEW IS ONLY FOR GENERAL CONFORMANCE WITH THE DESIGN CONCEPT AND DOES NOT RELIEVE THE CONTRACTOR FROM COMPLIANCE WITH DESIGN DRAWINGS & SPECIFICATIONS, WHICH HAVE A PRIORITY OVER SHOP DRAWINGS. CONTRACTOR IS RESPONSIBLE FOR CONFIRMED & CORRELATED DIMENSIONS, FABRICATION PROCESSES, MEANS, METHODS, TECHNIQUES, SAFETY, AND COORDINATION OF THE WORK WITH OTHER TRADES. IT IS THE CONTRACTOR'S RESPONSIBILITY TO CHECK THE ACCURACY OF HIS OWN SHOP DRAWINGS AND THOSE OF HIS SUBCONTRACTORS, PRIOR TO SUBMITTAL.
- 2. THE SHOP DRAWINGS WILL BE RETURNED FOR RESUBMITTAL IF A CURSORY REVIEW SHOWS MAJOR ERRORS WHICH SHOULD HAVE BEEN FOUND BY THE CONTRACTOR'S LOCATIONS OF ITEMS DETAILED ON THE SHOP DRAWINGS. ANY CHANGES, STITUTIONS, OR DEVIATIONS FROM THE CONTRACT DOCUMENTS SHALL BE CLOUDED ON SHOP DRAWINGS, ANY OF THE CHANGES WHICH ARE NOT CLOUDED OR FLAGGED BY SURMITTING PARTIES SHALL NOT BE CONSIDERED REVIEWED AFTER SKATEPARK DESIGNER'S REVIEW UNLESS NOTED ACCORDINGLY
- 3. ANY RESUBMITTAL OF A DETAIL SHEET WITH CHANGED INFORMATION SHALL BE ACCOMPANIED BY LOCATION PLAN IDENTIFYING THE MEMBERS INVOLVED, AND
- 4 ANY ENGINEERING SUBMITTED FOR REVIEW SHALL BE APPROPRIATELY SEALED. FULL RESPONSIBILITY OF SUCH ENGINEERING RESTS WITH THE PERSON SEALING THE

- . ESTABLISH AND MAINTAIN REQUIRED LINES AND GRADE ELEVATIONS.
- 2. REMOVE UPPER SIX INCHES OR MORE CONTAINING ROOTS, GRASS, AND ORGANI MATERIAL AND DISPOSE OFF THE SITE. EXCAVATE AND STOCKPILE. SCARIFY AND COMPACT EXPOSED SUBGRADE FOR A DEPTH OF 12 INCHES.
- 3. PROVIDE STRUCTURAL FILL AS REQUIRED TO MEET PROPOSED SUBGRADE ELEVATIONS IN ACCORDANCE WITH CIVIL ENGINEERING SPECIFICATIONS AND TESTING AGENCY RECOMMENDATIONS.
- 4. BRING UP FILL USING STOCKPILED MATERIAL AND/OR APPROVED MATERIAL WITH LOW PLASTICITY IN 12-INCH THICK MAXIMUM LAYERS (UNLESS OTHERWISE SPECIFIED IN THE SOILS REPORT OR BY LOCAL PRACTICE), COMPACTING EACH LAYER TO 95
- COMPACT SUBGRADE TO OBTAIN FIRM, EVEN SUBGRADE SURFACE. FILL AND CONSOLIDATE DEPRESSED AREAS. REMOVE UNCOMPACTABLE MATERIALS. REPLACE WITH CLEAN FILL AND COMPACT TO 95% OF THE MAXIMUM DRY DENSITY IN
- ACCORDANCE WITH ASTM D698 STANDARD PROCTOR METHOD. 6. THE EARTHWORK SHALL BE DONE UNDER SUPERVISION OF A SOILS ENGINEER

RETAINED BY THE GENERAL CONTRACTOR.

- 7. THE EXCAVATION CONTRACTOR SHALL REMOVE ALL SWELLABLE SOIL AS DIRECTED BY THE SOILS ENGINEER.
- EXCAVATION AND COMPACTION OF FILL SHALL EXTEND TO THE BUILDING LINES.
- 9. PROCEED WITH SUB-BASE ONLY AFTER NONCONFORMING CONDITIONS HAVE BEEN CORRECTED AND SUBGRADE HAS BEEN INSPECTED.
- 10 PROVIDE THE SPECIFIED DEPTH OF COMPACTED AGGREGATE BASE MATERIAL COMPACT AGGREGATE BASE TO 95% OF THE MAXIMUM DRY DENSITY IN ACCORDANCE WITH ASTM D698 STANDARD PROCTOR METHOD.
- 11. PROCEED WITH CONCRETE ONLY AFTER NONCONFORMING CONDITIONS HAVE BEEN CORRECTED, SUBGRADE HAS BEEN INSPECTED, AND FORMWORK AND FIELD MOCK-UPS HAVE BEEN REVIEWED.
- 12. REMOVE LOOSE MATERIAL FROM COMPACTED SUB-BASE SURFACE IMMEDIATELY BEFORE PLACING CONCRETE.

- FORM MATERIALS: PLYWOOD, METAL, METAL-FRAMED PLYWOOD, OR OTHER APPROVED PANEL-TYPE MATERIALS FREE FROM DEFECTS AND DISTORTION, AND TO PROVIDE FULL-DEPTH, CONTINUOUS, STRAIGHT, SMOOTH EXPOSED SURFACES.
- USE FLEXIBLE OR CURVED FORMS AS REQUIRED TO PROVIDE VERTICAL AND HORIZONTAL RADII AS INDICATED IN THE DRAWINGS.
- PROVIDE 2" NOMINAL THICKNESS, SURFACED PLANK WOOD FORMS FOR STRAIGHT ECTIONS. USE FLEXIBLE METAL, 1' LUMBER, OR PLYWOOD FORMS FOR RADIUS BENDS. DO NOT OVERLAP FORMS, CREATING AN OFFSET FINISHED EDGE.
- FORM-RELEASE AGENT: COMMERCIALLY FORMULATED FORM-RELEASE AGENT THAT WILL NOT BOND WITH, STAIN, OR ADVERSELY AFFECT CONCRETE SURFACES AND WILL NOT IMPAIR SUBSEQUENT TREATMENTS OF CONCRETE SURFACES.
- EDGE FORMS AND SCREED CONSTRUCTION
- A. SET, BRACE, AND SECURE EDGE FORMS, BULKHEADS, AND INTERMEDIATE SCREED GUIDES FOR PAVEMENT TO REQUIRED LINES, GRADES, AND ELEVATIONS. INSTALL FORMS TO ALLOW CONTINUOUS PROGRESS OF WORK AND SO FORMS CAN REMAIN IN PLACE AT LEAST 24 HOURS AFTER CONCRETE PLACEMENT.
- B. CLEAN FORMS AFTER EACH USE AND COAT WITH FORM RELEASE AGENT TO ENSURE SEPARATION FROM CONCRETE WITHOUT DAMAGE.

- 1 ALL REINFORCING STEEL SHALL CONFORM TO ASTM A-615 GRADE 60. FOR REINFORCING THAT IS TO BE WELDED, CONFORM TO ASTM A706 GRADE 60. USE ASTM A-108 GRADE 60 FOR ALL WELDED ANCHORS.
- JOINT DOWEL BARS: PLAIN STEEL DOWELS, ASTM A 615/A 615M, GRADE 60. CUT BARS TRUE TO LENGTH WITH ENDS SQUARE AND FREE OF BURRS.
- 3 SLIP DOWELS ARE ACCEPTABLE.
- BAR SUPPORTS: BOLSTERS, CHAIRS, SPACERS AND OTHER DEVICES FOR SPACING. SUPPORTING AND FASTENING REINFORCEMENTS BARS, AND DOWELS IN PLACE. MANUFACTURE BAR SUPPORTS ACCORDING TO CRSI'S "MANUAL OF STANDARD PRACTICE' FROM STEEL WIRE, PLASTIC, OR PRECAST CONCRETE OR FIBER-REINFORCED CONCRETE OF GREATER COMPRESSIVE STRENGTH THAN
- 5 ALL REINFORCING BARS TO BE DEFORMED. LATEST ACI CODE AND DETAILING MANUAL APPLY. CLEAR CONCRETE COVERAGES TO ANY REINFORCING INCLUDING TIES ARE AS FOLLOWS:
- A. 3" CONCRETE PLACED AGAINST ROUGH EARTH.
- B. 2" FORMED CONCRETE EXPOSED TO EARTH OR WEATHER (#6 OR
- C. 1" SLABS AND JOISTS NOT EXPOSED TO WEATHER.
- D. 1-1/2" ALL OTHER.

- SMALLER CLEARANCES PERMISSIBLE FOR PRECAST OR PRESTRESSED.
- LAP SPLICES IN MASONRY: SHALL BE 48 DIAMETERS.

A. #3, 22"; #4, 29"; #5, 36". MULTIPLY BY 1.3 FOR TOP BARS.

- TENSION LAP SPLICES IN CONCRETE: UNLESS NOTED OTHERWISE, PROVIDE THE
- 9 MINIMUM CLEAR COVER FOR SPLICED REINFORCING IS GREATER THAN ONE BAR DIAMETER, AND MINIMUM CLEAR SPACING IS GREATER THAN TWO BAR DIAMETERS. SPLICE BOTTOM BAR OVER SUPPORTS AND TOP BAR AT MIDSPAN ONLY. WHERE BARS ARE SHOWN SPLICED, THEY MAY RUN CONTINUOUS AT CONTRACTOR'S OPTION.
- 10 PLACE REBAR PER CRSI MANUAL. REBAR SPACINGS GIVEN ARE MAXIMUM ON CENTER WHETHER STATED AS "O.C." OR NOT, AND ALL REBAR IS CONTINUOUS WHETHER STATED AS "CONT." OR NOT. PROVIDE BENT CORNER REBAR TO MATCH AND LAP WITH HORIZONTAL REBARS AT CORNERS AND INTERSECTION OF WALLS, BEAMS, BOND BEAMS AND FOOTINGS PER ACI MANUAL. DOWEL ALL VERTICAL REBAR TO FOUNDATIONS. SECURELY TIE ALL REBAR, INCLUDING DOWELS, IN LOCATION BEFORE
- 11 GENERAL: COMPLY WITH CRSI'S MANUAL OF STANDARD PRACTICE FOR FABRICATING REINFORCEMENT AN WITH RECOMMENDATIONS IN CRSI'S "PLACING REINFORCING BARS FOR PLACING AND SUPPORTING REINFORCEMENT. CLEAN REINFORCEMENT OF LOOSE RUST AND MILL SCALE, EARTH, ICE, OR OTHER BOND-REDUCING MATERIALS. ARRANGE, SPACE, AND SECURELY TIE BARS AND BAR SUPPORTS TO HOLD REINFORCEMENT IN POSITION DURING CONCRETE PLACEMENT. MAINTAIN MINIMUM COVER TO REINFORCEMENT.

- ALL CONCRETE SHALL MEET ALL THE REQUIREMENTS OF ACI 301 WITH TYPE II CEMENT. MINIMUM 28 DAY STRENGTH 4,000 PSI, EXCEPT AS FOLLOWS:
- A. NO ADMIXTURES WITHOUT APPROVAL. ADMIXTURES CONTAINING CHLORIDES SHALL NOT BE USED. CONCRETE SHALL NOT BE IN CONTACT WITH ALUMINUM.
- B. CONCRETE SHALL BE PLACED WITHIN 90 MINUTES OF BATCHING AND SHALL NOT EXCEED A TEMPERATURE OF 90 DEGREES FAHRENHEIT UNLESS PRE-APPROVED
- C. SLUMP RANGE: 2 TO 4 INCHES.
- D. SMALL TO MEDIUM AGGREGATE (3/4" MAX.) FIBER REINFORCEMENT OK.
- 2 ALL SLAB CONSTRUCTION SHALL CONFORM TO ACI 302.1
- 3 DO NOT INSTALL CONCRETE WORK OVER SATURATED, MUDDY, OR FROZEN 4 DO NOT INSTALL CONCRETE WHEN AIR TEMPERATURE IS BELOW 40 DEGREES. USE OF

CALCIUM CHLORIDE, SALT, OR OTHER ADMIXTURE TO PREVENT CONCRETE FROM

- PROTECT ADJACENT WORK AND PROVIDE TEMPORARY BARRICADES AS REQUIRED FOR PROTECTION OF PROJECT WORK AND PUBLIC SAFETY.
- 6 MECHANICALLY VIBRATE ALL CONCRETE WHEN PLACED, EXCEPT THAT SLABS ON GRADE AND SLABS ON DECK NEED BE VIBRATED ONLY AROUND EMBEDDED ITEMS.
- CONCRETE CYLINDERS SHALL BE TAKEN AND TESTED PER THE ACI CODE, WHEN REQUIRED BY THE PROJECT.
- ALL REINFORCING, INCLUDING DOWELS AND ANCHOR BOLTS, SHALL BE SECUREL' TIED IN LOCATION BEFORE PLACING CONCRETE OR GROUT. DOWELS WILL NOT BE
- ALLOWED TO BE "STABBED" IN. 9 IF ENTIRE SLAB CANNOT BE POURED IN ONE DAY, SUBCONTRACTOR
- MUST DISCUSS POUR OPTIONS WITH THE SKATE PARK DESIGNER. 10 CONDUITS, PIPES, AND SLEEVES EMBEDDED IN CONCRETE SHALL CONFORM TO THE REQUIREMENTS OF ACI 6.3.

- CONSOLIDATE CONCRETE BY MECHANICAL VIBRATING EQUIPMENT SUPPLEMENTED BY HAND-SPADING, RODDING OR TAMPING. USE EQUIPMENT AND PROCEDURES TO CONSOLIDATE CONCRETE ACCORDING TO RECOMMENDATIONS IN ACI 309R.
- A. CONSOLIDATE CONCRETE ALONG FACE OF FORMS AND ADJACENT TO TRANSVERSE JOINTS WITH AN INTERNAL VIBRATOR. KEEP VIBRATOR AWAY FROM JOINT ASSEMBLIES, REINFORCEMENT, OR SIDE FORMS. USE ONLY SQUARE-FACED SHOVELS FOR HAND-SPREADING AND CONSOLIDATION. CONSOLIDATE WITH CARE
- 2 COLD WEATHER PLACEMENT: COMPLY WITH ACI 308.1 AND AS FOLLOWS. PROTECT CONCRETE WORK FROM PHYSICAL DAMAGE OR REDUCED STRENGTH THAT COULD BE CAUSED BY FROST, FREEZING ACTIONS, OR LOW TEMPERATURES.
- A. DO NOT INSTALL CONCRETE WHEN AIR TEMPERATURE IS BELOW 40 DEGREES WITHOUT WRITTEN AUTHORIZATION FROM THE OWNER. WHEN AIR TEMPERATURE HAS FALLEN TO OR IS EXPECTED TO FALL BELOW 40 DEG F, UNIFORMLY HEAT WATER AND AGGREGATES BEFORE MIXING TO OBTAIN A CONCRETE MIXTURE TEMPERATURE OF NOT LESS THAN 50 DEG F AND NOT MORE THAN 80 DEG F AT
- B. DO NOT USE FROZEN MATERIALS OR MATERIALS CONTAINING ICE OR SNOW. C. DO NOT USE CALCIUM CHLORIDE, SALT, OR OTHER MATERIALS CONTAINING ANTIFREEZE AGENTS OR CHEMICAL ACCELERATORS, UNLESS OTHERWISE
- SPECIFIED AND APPROVED IN MIX DESIGNS. HOT-WEATHER PLACEMENT: PLACE CONCRETE ACCORDING TO RECOMMENDATION IN
- ACI 305R AND AS FOLLOWS WHEN HOT-WEATHER CONDITIONS EXIST A. COOL INGREDIENTS BEFORE MIXING TO MAINTAIN CONCRETE TEMPERATURE AT TIME OF PLACEMENT BELOW 90 DEG FERINHEIGHT. CHILLED MIXING WATER OR CHOPPED ICE MAY BE USED TO CONTROL TEMPERATURE, PROVIDED WATER

EQUIVALENT OF ICE IS CALCULATED TO TOTAL AMOUNT OF MIXING WATER. USING

B. COVER REINFORCEMENT STEEL WITH WATER-SOAKED BURLAP SO STEEL TEMPERATURE WILL NOT EXCEED AMBIENT AIR TEMPERATURE IMMEDIATELY BEFORE EMBEDDING IN CONCRETE.

LIQUID NITROGEN TO COOL CONCRETE IS CONTRACTORS OPTION.

- C. FOG-SPRAY FORMS, REINFORCEMENT STEEL, AND SUBGRADE JUST BEFORE PLACING CONCRETE. KEEP SUBGRADE MOISTURE UNIFORM WITHOUT STANDING WATER, SOFT SPOTS, OR DRY AREAS.
- FINISH: HARD TROWEL UNTIL ALL VISIBLE POURS ARE CLOSED. CEASE TROWEL BEFORE GLASS FORMS ON SURFACE OF SLAB. DO NOT BROOM FINISH AND DO NOT
- A. ALL EDGE TOOLING SHOULD BE 1/8 INCH RADIUS. CHAMFERED EDGES ON SLAB / FLATWORK PERIMETER PREFERRED TO MITIGATE SLAB EDGE BREAKAGE.

CONCRETE PROTECTION AND CURING

- GENERAL: PROTECT FRESHLY PLACED CONCRETE FROM PREMATURE DRYING AND EXCESSIVE COLD OR HOT TEMPERATURES, COMPLY WITH ACI 306.1 FOR COLD-WEATHER PROTECTION AND FOLLOW RECOMMENDATIONS IN ACI 305R FOR HOT-WEATHER PROTECTION DURING CURING.
- EVAPORATION RETARDANT: APPLY EVAPORATION RETARDANT TO CONCRETE SURFACES IF HOT, DRY, OR WINDY CONDITIONS CAUSE MOISTURE LOSS BEFORE AND DURING FINISHING OPERATIONS. APPLY TO EXPOSED SURFACE OF CONCRETE ACCORDING TO MANUFACTURERS WRITTEN INSTRUCTIONS.
- 3 BEGIN CURING AFTER FINISHING CONCRETE, BUT NOT BEFORE FREE WATER HAS DISAPPEARED FROM CONCRETE SURFACE. 4 CURING METHODS: CURE CONCRETE BY MOISTURE CURING,
- MOISTURE-RETAINING-COVER CURING, CURING COMPOUND, OR A COMBINATION OF THESE AS FOLLOWS: A. MOISTURE CURING: KEEP SURFACES CONTINUOUSLY MOIST FOR NOT LESS THAN SEVEN DAYS WITH THE FOLLOWING MATERIALS:
- 2) CONTINUOUS WATER-FOG SPRAY. 3) ABSORPTIVE COVER, WATER SATURATED, AND KEPT CONTINUOUSLY WET. COVER CONCRETE SURFACES AND EDGES WITH 6 - INCH LAP OVER ADJACENT
- B. MOISTURE-RETAINING-COVER CURING: COVER CONCRETE SURFACES WITH MOISTURE-RETAINING COVER FOR CURING CONCRETE, PLACED IN WIDEST PRACTICABLE WIDTH, WITH SIDES AN ENDS LAPPED AT LEAST 6 INCHES, AND SEALED BY WATERPROOF TAPE OR ADHESIVE WHERE NECESSARY. IMMEDIATELY REPAIR ANY HOLES OR TEARS DURING CURING PERIOD USING THE SAME

MATERIAL AND WATERPROOF TAPE.

C. CURING COMPOUND: APPLY UNIFORMLY IN CONTINUOUS OPERATION BY POWER SPRAY OR ROLLER ACCORDING TO MANUFACTURER'S WRITTEN INSTRUCTIONS. MAINTAIN CONTINUITY OF COATING AND REPAIR DAMAGE DURING CURING PERIOD. WHEN EXPOSED TO UV RAYS AND WEATHERING. MEMBRANE SHOULD BREAKDOWN APPROX. FOUR (4) WEEKS AFTER APPLICATION

- ABSORPTIVE COVER: AASHTO M 182, CLASS 2, BURLAP CLOTH MADE FROM JUTE OR
- 2 MOISTURE-RETAINING COVER: ASTM C 171, POLYETHYLENE FILM OR WHITE
- BURLAP-POLYETHYLENE SHEET (BUR LENE).

KENAF, WEIGHING APPROXIMATELY 9 OZ./SQ. YD. DRY.

- 3 WATER: POTABLE. EVAPORATION RETARDANT: WATERBORNE, MONOMOLECULAR FILM FORMING MANUFACTURED FOR APPLICATION TO FRESH CONCRETE, SUCH AS EUCOBAR EVAPORATION RETARDANT BY THE EUCLID CHEMICAL COMPANY.
 - EXPANSION AND ISOLATION JOINT FILLER STRIPS: EXPANSION JOINT MATERIALS SHALL BE FLEXIBLE POLYETHYLENE CLOSED CELL FOAM OR SIMILAR AND SUPPLIED BY CONCRETE CONTRACTOR. DECK-O-FOAM OR EQUIVALENT
 - EXPANSION JOINT SEALANT: SIKAFLEX 2C NS TG POLYURETHANE ELASTOMERIC EALANT, OR APPROVED EQUAL. COLOR OF CAULK SHOULD RESEMBLE COLOR OF CONCRETE (ALUMINUM GRAY OR SIMILAR)
 - 1-PART POLYURETHANE SEALANT, OR APPROVED EQUAL. COLOR OF CAULK SHOULD RESEMBLE COLOR OF CONCRETE (ALUMINUM GRAY OR SIMILAR) BONDING AGENT: ASTM C 1059, TYPE II, NON-REDISPERSIBLE, ACRYLIC EMULSION OR

SAW CUT JOINT SEALANT: SIKAFLEX-1c SL HIGH PERFORMANCE, SELF-LEVELING

STYRENE BUTADIENE.

- GENERAL: CONSTRUCT CONSTRUCTION, ISOLATION, AND CONTRACTION JOINTS AND TOOL EDGINGS TRUE TO LINE WITH FACES PERPENDICULAR TO SURFACE PLANE OF CONCRETE. CONSTRUCT TRANSVERSE JOINTS AT RIGHT ANGLES TO CENTERLINE, UNLESS OTHERWISE INDICATED.
- KEY JOINTS: SET CONSTRUCTION JOINTS AT SIDE AND END TERMINATIONS OF PAVEMENT AND AT LOCATIONS WHERE PAVEMENT OPERATIONS ARE STOPPED FOR WORE THAN ONE-HALF HOUR, UNLESS PAVEMENT TERMINATES AT ISOLATION JOINTS.
- A. PROVIDE PRE-FORMED GALVANIZED STEEL OR PLASTIC KEYWAY-SECTION FORMS OR BULKHEAD FORMS WITH KEYS, UNLESS OTHERWISE INDICATED. EMBED KEYS AT LEAST 1.5 INCHES INTO CONCRETE.
- B. CONTINUE REINFORCEMENT ACROSS KEY JOINTS, UNLESS OTHERWISE INDICATED. DO NOT CONTINUE REINFORCEMENT THROUGH SIDES OF PAVEMENT STRIPS WHERE INDICATED.
- C. PROVIDE TIE BARS AT SIDES OF PAVEMENT STRIPS WHERE INDICATED. USE A BONDING AGENT AT LOCATIONS WHERE FRESH CONCRETE IS PLACED
- 3 EXPANSION JOINTS: FORM EXPANSION JOINTS OF SPECIFIED JOINT-FILLER STRIPS
- ABUTTING DRAIN STRUCTURES, AND OTHER FIXED OBJECTS, AND WHERE INDICATED.
- A. LOCATE EXPANSION JOINTS AS INDICATED ON DRAWINGS.
- B. EXTEND JOINT FILLERS FULL WIDTH AND DEPTH OF JOINT. C. TERMINATE JOINT FILLER TO DEPTH INDICATED ON DRAWINGS TO ALLOW FOR
- BOND BREAKER AND JOINT SEALANT. D. FURNISH JOINT FILLERS IN ONE-PIECE LENGTHS. WHERE MORE THAN ONE
- LENGTH IS REQUIRED, LACE OR CLIP JOINT-FILLER SECTIONS TOGETHER. E. PROTECT TOP EDGE OF JOINT FILLER DURING CONCRETE PLACEMENT WITH METAL, PLASTIC, OR OTHER TEMPORARY PREFORMED CAP. REMOVE PROTECTIVE CAP AFTER CONCRETE HAS BEEN PLACED ON BOTH SIDES OF JOINT.
- 4 INSTALL DOWEL BARS AND SUPPORT ASSEMBLIES AT JOINTS WHERE INDICATED. LUBRICATE OR ASPHALT-COAT ONE-HALF DOWEL LENGTH TO PREVENT CONCRETE BONDING TO ONE SIDE OF JOINT.
- 5 CONTROL JOINTS: FORM WEAKENED-PLANE JOINTS, SECTIONING CONCRETE INTO AREAS AS INDICATED. CONSTRUCT CONTROL JOINTS FOR A DEPTH AS INDICATED IN THE DRAWINGS (GENERALLY 1/3 OF THE PAVEMENT THICKNESS), AS FOLLOWS:
- A. SAWED JOINTS: FORM CONTROL JOINTS WITH POWER SAWS EQUIPPED WITH SHATTERPROOF ABRASIVE OR DIAMOND-RIMMED BLADES. CUT 1/8 INCH WIDE JOINTS INTO CONCRETE WHEN CUTTING ACTION WILL NOT TEAR, ABRADE, OR OTHERWISE DAMAGE SURFACE AN BEFORE DEVELOPING RANDOM CONTRACTION CRACKS. EARLY SAW CUTS ARE APPROXIMATELY 1 INCH DEEP, REGARDLESS OF PAVEMENT THICKNESS. REFER TO CONTROL JOINT GUIDE DRAWING OF PLAN SET
- B. IF SKATEPARK PROJECT DESIGN UTILIZES POURED STEPS, CONTROL JOINTS MUST BE CUT 3 - 4 FEET FROM THE EDGE OF THE TOP STEP.
- 6 POST CURE DETAIL WORK (AS NEEDED): GRIND SMOOTH ANY INCONSISTENCIES IN THE FINISH OR HIGH SPOTS BETWEEN POURS.
- 1 FURNISH MATERIALS AND PERFORM LABOR REQUIRED TO EXECUTE THIS WORK AS INDICATED ON THE DRAWINGS, AS SPECIFIED, AND AS NECESSARY TO COMPLETE THE CONTRACT, INCLUDING, BUT NOT LIMITED TO BOWL STEEL COPING, LEDGE STEEL
- EDGING. HANDRAILS, AND GRIND RAILS. 2 USING SKILLED WORKERS, FORM AND FABRICATE ITEMS OF WORK AS INDICATED AND AS REQUIRED TO MEET INSTALLATION CONDITIONS. MAKE PROVISIONS TO CONNECT WITH OR RECEIVE THE WORK OF OTHER TRADES.
- 3 USE MATERIALS OF SIZE AND THICKNESS SHOWN OR, IF NOT SHOWN, OF REQUIRED SIZE AND THICKNESS TO PRODUCE STRENGTH AND DURABILITY IN THE FINISHED
- UNLESS OTHERWISE INDICATED, WELD OR BOLT CONNECTIONS BETWEEN MEMBERS. WHERE POSSIBLE, CONCEAL CONNECTIONS ON THE FINISHED WORK. FIT OR MITER EXPOSED JOINTS TO HAIRLINE TOLERANCE OR USE WELDED JOINTS. ON FINISHED SURFACES GRIND ALL WELDS SMOOTH AND FLUSH WITH BASE METAL.
- 5 WELD CONNECTIONS WHICH ARE NOT TO BE LEFT AS EXPOSED JOINTS, BUT CANNOT BE SHOP WELDED BECAUSE OF SHIPPING SIZE LIMITATIONS. 6 CAP ALL EXPOSED TUBE OR PIPE ENDS. USE SIZE AND THICKNESS OF MATERIAL
- SHOWN. PROPERLY FIT AND WELD CAP AT JOINT, GRIND WELD SMOOTH AND FLUSH BEND PIPE OR TUBING WITHOUT COLLAPSING OR DEFORMING THE WALLS, AND SO AS
- TO PRODUCE A SMOOTH UNIFORM CURVED SECTION AND MAINTAIN UNIFORM 8 WHERE ITEMS ARE TO BE IMBEDDED IN CONCRETE OR MASONRY, PROVIDE
- WELDED-ON ANCHORS OR LUGS AS INDICATED OR REQUIRED. PROVIDE TEMPORARY BRACING OR ANCHORS IN FORMWORK FOR ITEMS WHICH ARE TO BE BUILT INTO CONCRETE OR SIMILAR CONSTRUCTION.
- FABRICATIONS TO IN-PLACE CONSTRUCTION INCLUDING THREADED FASTENERS FOR CONCRETE INSERTS, OR OTHER CONNECTORS AS REQUIRED. 11 GALVANIZING REPAIR PAINT-USE A HIGH ZINC DUST CONTENT PAINT FOR

10. FASTENING TO IN-PLACE CONSTRUCTION: PROVIDE ANCHORING DEVICES AND

FASTENERS WHERE NECESSARY FOR SECURING MISCELLANEOUS METAL.

- RE-GALVANIZING WELDS IN GALVANIZED STEEL. 12 ALL WELDING SHALL CONFORM TO REQUIREMENTS OF AWS STANDARDS. ALL WELDING SHALL BE SHIELDED METAL ARC WELDING. WELDS IN FINISH WORK SHALL BE
- 13 ASTM A-36 FOR C, MC, ANGLES, AND PLATES.

TO 5/8" THICK.

- 14 ASTM A-53 GRADE B OR A-501 FOR STEEL PIPES.
- 15 ASTM A-123 STANDARD SPECIFICATION FOR ZINC (HOT-DIP GALVANIZED) COATINGS ON IRON AND STEEL PRODUCTS

FILLED OUT FLUSH, GROUND AND DISTRESSED. WELDERS FOR STRUCTURAL SHALL BE

17 ASTM A-780 STANDARD PRACTICE FOR REPAIR OF DAMAGED AND UNCOATED AREAS OF HOT-DIP GALVANIZED COATINGS. 18 ASTM F-1554 GRADE 36, A-307 OR A-36 PLAIN ANCHOR BOLTS.

16 ASTM A-513 GRADE B, FY=46 KSI FOR TS/HSS TUBE STEEL FOR SIZES UP

- THESE CONTRACT DOCUMENTS AND SPECIFICATIONS REPRESENT THE FINISHED STRUCTURE THEY DO NOT INDICATE THE METHOD OF CONSTRUCTION. THE CONTRACTOR SHALL PROVIDE LL MEASURES NECESSARY TO PROTECT THE STRUCTURE, WORKERS, AND OTHER PERSONS DURING CONSTRUCTION. SUCH MEASURES SHALL INCLUDE, BUT NOT BE LIMITED TO, MEANS AND METHODS, BRACING, SHORING, FORMS, SCAFFOLDING, GUYING OR OTHER MEANS TO AVOID EXCESSIVE STRESSES AND TO HOLD STRUCTURAL ELEMENTS IN PLACE DURING CONSTRUCTION. OBSERVATION VISITS TO THE SITE BY THE STRUCTURAL ENGINEER OR STRUCTURAL OBSERVERS SHALL NOT INCLUDE INSPECTION OF THE ABOVE ITEMS.
- OPTIONS AND SUBSTITUTIONS (APPROVED BY OWNER/SKATEPARK DESIGNER/ARCHITECT) ARE FOR CONTRACTOR'S CONVENIENCE. CONTRACTOR SHALL BE RESPONSIBLE FOR SUBMITTING ALL CHANGES AND ADDITIONAL COSTS NECESSARY AND SHALL COORDINATE ALL DETAILS

WITH SKATEPARK DESIGNER THROUGH PRIME.

- 3 ANY ENGINEERING DESIGN PROVIDED BY CONTRACTOR OR OTHERS AND SUBMITTED FOR REVIEW SHALL BE WET SIGNED AND STAMPED BY AN INSURED REGISTERED STRUCTURAL OR CIVIL ENGINEER LICENSED IN THE STATE OF WHICH THE PROJECT IS LOCATED, IF REQUIRED BY
- UNLESS NOTED OTHERWISE, DETAILS ON CONSTRUCTION DRAWINGS ARE TYPICAL AS INDICATED BY CUTS, REFERENCES, OR TITLES. ALL DETAILS SHOWN SHALL BE IMPORTED INTO THE PROJECT AT ALL APPROPRIATE LOCATIONS, WHETHER SPECIFICALLY INDICATED OR NOT. TYPICAL DETAILS MAY OR MAY NOT BE REFERENCED ON THE DOCUMENTS, BUT SHALL APPLY AT ALL LOCATIONS, UNLESS NOTED OTHERWISE. WHERE NO DETAIL CUTS ARE SHOWN, CONSTRUCTION SHALL CONFORM TO SIMILAR WORK SHOWN ELSEWHERE ON THE PROJECT FOR BIDDING PURPOSES, WHERE ANY SHOWN MEMBER OR STRUCTURAL ELEMENT IS NOT SIZED ON THE DOCUMENTS, THE LARGEST SIMILAR MEMBER USED IN THE PROJECT SHALL BE
- 5 ALL DIMENSIONS AND ELEVATIONS SHOWN ON CONSTRUCTION DRAWINGS SHALL BE VERIFIED WITH ARCHITECTURAL DRAWINGS (IF REQUIRED BY THE PROJECT). RESOLVE ALL DISCREPANCIES WITH SKATEPARK DESIGNER AND PRIME PRIOR TO START OF CONSTRUCTION. DO NOT SCALE DRAWINGS.
- 6 CONTRACTOR SHALL ESTABLISH AND VERIFY IN FIELD ALL EXISTING CONDITIONS AFFECTING NEW CONSTRUCTION. CONTACT SKATEPARK DESIGNER AND PRIME IMMEDIATELY IF EXISTING CONDITIONS ARE NOT AS DEPICTED IN DRAWINGS

FI EVATION: 1/2 INCH. CONTRACTOR MUST ACHIEVE POSITIVE DRAINAGE FOR ALL SURFACES WITHIN THE SKATEPARK AREA. STANDING WATER WILL NOT BE ALLOWED. (REFER TO DRAINAGE GUIDE DRAWING IN PLAN SET)

- REMOVE AND REPLACE CONCRETE PAVEMENT THAT IS BROKEN, DAMAGED, OR DEFECTIVE, OR DOES NOT MEET REQUIREMENTS IN THIS SECTION. THE CONTRACTOR SHALL FIX ALL CRACKS
- AND DISPLACEMENTS LARGER THAN 1/18" UP TO THE PROJECT COMPLETION. 2 PROTECT CONCRETE FROM DAMAGE. EXCLUDE TRAFFIC FROM PAVEMENT FOR AT LEAST 14 DAYS AFTER PLACEMENT. WHEN CONSTRUCTION TRAFFIC IS PERMITTED, MAINTAIN PAVEMENT AS CLEAN AS POSSIBLE BY REMOVING SURFACE STAINS AND SPILLAGE OF MATERIALS AS THEY
- 3 MAINTAIN CONCRETE PAVEMENT OF STAINS, DISCOLORATION, DIRT, AND OTHER FOREIGN

SHOTCRETE SPECIFICATIONS **PART 1- GENERAL**

- DESCRIPTION: SHOTCRETE APPLICATION, CUTTING, SCULPTING AND FINISH WORK HAS BEEN DEEMED AS SPECIALTY CONSTRUCTION WORK WITHIN THE CONSTRUCTION DOCUMENTS. ALL WORK RELATED TO THE SPECIALTY CONSTRUCTION SHALL E COORDINATED BY THE PROJECT ENGINEER, AND THE PRE-QUALIFIED SPECIALTY CONTRACTOR, PRIOR TO THE START OF CONSTRUCTION.

1.2 QUALITY ASSURANCE

IBC: "INTERNATIONAL BUILDING CODE" AMERICAN CONCRETE INSTITUTE (ACI): 508, CHAPTER 13, WET METHOD. CHAPTER 5, SHOTCRETE CREW iii. ASTM: "AMERICAN SOCIETY FOR TESTING MATERIALS"

A. STANDARDS: COMPLY WITH THE REQUIREMENTS OF THE CURRENT EDITION OF THE

FOLLOWING CODES AND STANDARDS, EXCEPT AS HEREIN MODIFIED:

MANUFACTURER'S DATA: CURRENT PRINTED SPECIFICATIONS WITH APPLICATION AND INSTALLATION INSTRUCTION FOR PROPRIETARY MATERIALS INCLUDING CONCRETE

1.3 SUBMITTALS

- 1.4 REFERENCE STANDARDS ACI 211.1- RECOMMENDED PRACTICE FOR SELECTING PROPORTIONS FOR NORMAL-WEIGHT
- ACI 211.3- RECOMMENDED PRACTICE FOR SELECTING PROPORTIONS FOR LIGHTWEIGHT ACI 301- SPECIFICATIONS FOR STRUCTURAL CONCRETE FOR BUILDINGS ACI 305- RECOMMENDED PRACTICE FOR HOT WEATHER CONCRETING.
- ACI 308- RECOMMENDED PRACTICE FOR COLD WEATHER CONCRETING ACI 318- BUILDING CODE REQUIREMENTS FOR REINFORCED CONCRETE **ASTM C33- CONCRETE AGGREGATES** ASTM C94- READY-MIXED CONCRETE
- ASTM C143- TEST FOR SLUMP OF PORTLAND CEMENT CONCRETE ASTM C150- PORTLAND CONCRETE ASTM C260- AIR-ENTRAINING ADMIXTURES FOR CONCRETE ASTM C494- CHEMICAL ADMIXTURES FOR CONCRETE

1.5 JOB CONDITIONS COORDINATION: COORDINATE SCHEDULES OF CONCRETE WORK TO ALLOW ADEQUATE TIME FOR INSTALLATION OF OTHER RELATED WORK.

ASTM C618- FLY ASH AND RAW OR CALCINED NATURAL POZZOLANS FOR USE IN PORTLAND

VERIFY THAT ANCHOR BOLTS AND OTHER EMBEDDED STEEL ITEMS TO BE CAST INTO CONCRETE ARE PROPERLY PLACED. COORDINATE EARTHWORK AND SOILS REPORT RECOMMENDATIONS WITH PLACEMENT REQUIREMENTS. iv. COORDINATE WITH FORM-WORK AND FINISHES SECTIONS TO PROVIDE FINISH

AND PERCENT SLOPE SHOWN IN THE CONSTRUCTION DRAWINGS. PART 2- SHOTCRETE WORK

2.1 SHOTCRETE MIX DESIGN

FLOORLEVELNESS AND FLATNESS AS SPECIFIED HEREIN. SLOPE TO DRAINS AT GRADES

- ACI STANDARD 506, LATEST EDITION, "SPECIFICATION FOR MATERIALS, PROPORTIONING AND APPLICATION OF SHOTCRETE" AND ACI 508.2, LATEST EDITION, "RECOMMENDED PRACTICES FOR SHOTCRETING' SHALL BE FOLLOWED. MIX DESIGNS FOR SHOTCRETE CONTAINING FLY ASH SHALL BE BY AN INDEPENDENT TESTING
- LABORATORY, ONLY ASTM C618 CLASS F FLY ASH SHALL BE USED. THE AMOUNT OF FLY ASH USED SHALL NOT EXCEED 20% BY WEIGHT OF THE COMBINED WEIGHT OF FLY ASH PLUS PROVIDE MIX DESIGNS THAT WILL MEET THE MINIMUM REQUIREMENTS LISTED BELOW.
- INCREASE CEMENT CONTENT OVER THAT SHOWN, IF REQUIRED TO OBTAIN THE COMPRESSIVE STRENGTH: MIN.CEMENT MAX. SLUMP MAX. AGGREGATE MAX.AIR MIN.28 DAY ENTRAINING COMPRESSIVE CONTENT (INCHES) SIZE (INCHES) STRENGTH (PSI) (POUNDS)
- 4000 (27.56 MPS) 600(217.72KG) 3" (7.62CM) 3/8" (0.94CM) 2.2 CONCRETE APPLICATION EQUIPMENT
- . FOR WET MIX SHOTCRETE MIXING EQUIPMENT: CAPABLE OF THOROUGHLY MIXING AGGREGATE, CEMENT AND WATER IN SUFFICIENT QUANTITY TO MAINTAIN CONTINUOUS PLACEMENT.
- READY-MIXED CONCRETE: ASTM C94, EXCEPT THAT IT MAY BE DELIVERED TO THE SITEIN THE DRY STATE IF THE EQUIPMENT IS CAPABLE OF ADDING THE WATER AND MIXING IT SATISFACTORILY WITH THE DRY INGREDIENTS. AIR SUPPLY: CLEAN AIR ADEQUATE FOR MAINTAINING SUFFICIENT NOZZLE VELOCITYFOR
- PARTS OF WORK, AND FOR SIMULTANEOUS OPERATION OF BLOW PIPE FOR CLEANING iv. DELIVERY EQUIPMENT: CAPABLE OF DISCHARGING AGGREGATE-CEMENT-WATER MIXTURE ACCURATELY, UNIFORMLY, AND CONTINUOUSLY THROUGH DELIVERY HOSE.

PART 3- EXECUTION

- A. EXAMINATION: EXAMINE CONCRETE FORMWORK AND VERIFY THAT IT IS TRUE TO LINE AND DIMENSION, ADEQUATELY BRACED AGAINST VIBRATION, AND CONSTRUCTED TO
- PERMIT ESCAPE OF AIR AND REBOUND BUT TO PREVENT LEAKAGE DURING SHOTCRETING. CORRECT DEFICIENCIES B. INSPECTION: INSPECT REINFORCEMENT STEEL AND ITEMS TO BE EMBEDDED IN CONCRETE. CORRECT ANY DEVIATIONS FROM THE ACCEPTED SHOP DRAWINGS.
- NOTIFICATION: NOTIFY OTHER TRADES INVOLVED IN AMPLE TIME TO PERMIT THE PROPER INSTALLATION OF THEIR WORK. COOPERATE IN SETTING SUCH WORK D. EXISTING SURFACES: EXAMINE EXISTING CONCRETE SURFACES FOR UNSOUND MATERIAL. CORRECT DEFICIENCIES.
- 3.2 PREPARATION FOR INSTALLATION OF CONCRETE
- A. FORMS: USE A FORM-COATING MATERIAL ON REMOVABLE FORMS TO PREVENT ABSORPTION OF MOISTURE AND TO PREVENT BOND WITH SHOTCRETE.
- 3.3 CONCRETE BATCHING AND MIXING
- PROPORTIONS: MIX PROPORTIONS SHALL BE CONTROLLED BY WEIGHT BATCHING. THE CONTRACTOR'S TESTING LABORATORY SHALL MAINTAIN QUALITY CONTROL RECORDS DURING SHOTCRETE PRODUCTION AND MAKE THOSE RECORDS AVAILABLE TO THE CLIENT. B. SCHEDULING: CONCRETE SHALL BE PLACED WITHIN 90 MINUTES OR BATCHING AND

CELSIUS) UNLESS PRE-APPROVED BY THE PROJECT ENGINEER.

- PLACEMENT: USE SUITABLE DELIVERY EQUIPMENT AND PROCEDURES THAT WILL RESULT IN SHOTCRETE IN PLACE MEETING THE REQUIREMENTS OF THIS SPECIFICATION. DETERMINE OPERATING PROCEDURES FOR PLACEMENT IN EXTENDED DISTANCES, AND AROUND ANY OBSTRUCTIONS WHERE PLACEMENT VELOCITIES AND MIX CONSISTENCY MUST BE ADJUSTED.
- B. PLACEMENT TECHNIQUES: DO NOT PLACE SHOTCRETE IF DRYING OR STIFFENING OF

SHALL NOT EXCEED A TEMPERATURE OF 90 DEGREES FAHRENHEIT (32 DEGREES

- THE MIX TAKES PLACE AT ANY TIME PRIOR TO DELIVERY TO THE NOZZLE. a. CONTROL THICKNESS, METHOD OF SUPPORT, AIR PRESSURE, AND/OR WATER CONTENT OF SHOTCRETE TO PRECLUDE SAGGING OR SLOUGHING OFF. DISCONTINUE SHOTCRETING OR PROVIDE SUITABLE MEANS TO SCREEN THE NOZZLE STREAM IF WIND OR AIR CURRENTS CAUSE SEPARATION OF THE NOZZLE
- STREAM DURING PLACEMENT b. HOLD NOZZLE AS PERPENDICULAR TO SURFACE AS WORK WILL PERMIT, TO SECURE MAXIMUM COMPACTION WITH MINIMUM REBOUND. c. IN SHOTCRETING WALLS, BEGIN APPLICATION AT BOTTOM. ENSURE WORK DOES
- BUILD UP LAYERS BY MAKING SEVERAL PASSES OF NOZZLE OVER WORK BROOM OR SCARIFY THE SURFACE OF FRESHLY PLACED SHOTCRETE TO WHICH, AFTER HARDENING, ADDITIONAL LAYERS OF SHOTCRETE ARE TO BE
- DAMPEN SURFACE JUST PRIOR TO APPLICATION OF SUCCEEDING LAYERS. ALLOW EACH LAYER OF SHOTCRETE TO TAKE INITIAL SET BEFORE APPLYING USE RADIAL TEMPLATES TO INSURE EXACT RADII FROM FLAT BOTTOM OF BOWL/PIPE TO FACE OF COPING. TEMPLATE SHALL BE FABRICATED FROM STEEL OR 3/4" MINIMUM (19.05MM) PLYWOOD, CHECK EVERY HORIZONTAL FOOT (30.48CM) WHEN APPLYING SHOTCRETE FOR CONFORMANCE OF INTENDED WALL RADII. BRACE TEMPLATE AND PLACE LEVELS AT ARC TO
- THE BOTTOM OF BOWLS WILL NOT BE ACCEPTABLE. SLUMPING OF THE SHOTCRETE CAUSING COPING SETBACK WILL NOT BE ACCEPTABLE. REMOVE ANY REBOUND OR ACCUMULATED LOOSE AGGREGATE FROM SURFACES TO BE COVERED PRIOR TO PLACING THE INITIAL OR ANY

SUCCEEDING LAYERS OF SHOTCRETE

TANGENT CONNECTIONS TO INSURE NO KINKS WILL BE FORMED. KINKS AT

- e. PLACEMENT AROUND REINFORCEMENT HOLD THE NOZZLE AT SUCH DISTANCE AND ANGLE TO PLACE MATERIALS BEHIND REINFORCEMENT BEFORE ANY MATERIAL IS ALLOWED TO ACCUMULATE ON ITS FACE. IN THE DRY-MIX PROCESS, ADDITIONAL WATER
- MAY BE ADDED TO THE MIX WHEN ENCASING REINFORCEMENT TO FACILITATE A SMOOTH FLOW OF MATERIAL BEHIND THE BARS TEST TO ASCERTAIN IF ANY VOID OR SAND POCKETS HAVE DEVELOPED AROUND OR BEHIND REINFORCEMENT BY PROBING WITH AN AWL OR OTHER POINTED TOOL AFTER THE SHOTCRETE HAS ACHIEVED ITS INITIAL SET, BY REMOVAL OF RANDOMLY SELECTED BARS, OR CORING OR OTHER SUITABLE
- A. ACCESS: ALLOW EASY ACCESS TO SHOTCRETE SURFACES FOR SCREEDING AND FINISHING, PERMITTING UNINTERRUPTED APPLICATION. 3.5 REMOVAL OF SURFACE DEFECTS IN CONCRETE
- A. GENERAL: REMOVE AND REPLACE SHOTCRETE WHICH LACKS UNIFORMITY, EXHIBITS SEGREGATION HONEYCOMBING, OR LAMINATION, OR WHICH CONTAINS ANY DRY PATCHES, SLUGS, VOIDS OR POCKETS, REMOVE DEFECTIVE AREAS.
- B. SOUNDING: SOUND WORK WITH HAMMER FOR VOIDS. REMOVE AND REPLACE DAMAGED IN-PLACE SHOTCRETE.
- 3.6 SHOTCRETE FINISH A. FINISH-GENERAL: SMOOTH FORM FINISH SHALL CONSIST OF A SMOOTH, HARD, UNIFORM TEXTURE WITH A MINIMUM OF SEAMS. RADIAL/BANKED WALL FINISH: FLOAT FINISH ON RADIAL/BANKED FACE OF WALL SHALL CONSIST OF A SMOOTH, HARD, UNIFORM SURFACE OF SMOOTH STEEL TROWEL. LEVEL
- (3.05) STEEL STRAIGHTEDGE PLACED ON THE SURFACE HORIZONTALLY AND VERTICALLY WITH RADIAL/BANK TEMPLATE WITH THE APPROPRIATE RADII/ANGLE GRINDING THE SURFACES WILL NOT BE AN ACCEPTABLE MEANS OF ACHIEVING THI
- INTENDED RADII/ANGLE COLOR: MINOR VARIATIONS IN APPEARANCE OF COLORED CONCRETE, WHICH ARE SIMILAR TO NATURAL VARIATIONS IN COLOR AND APPEARANCE OF UNCOLORED CONCRETE, ARE ACCEPTABLE DURING THE CURING PERIOD, CONCRETE SHALL BE MAINTAINED AT A TEMPERATURE ABOVE 40 DEGREES FERINHEIGHT AND IN MOIST CONDITION. FOR INITIAL CURING, CONCRETE SHALL BE KEPT CONTINUOUSLY MOIST FOR 24 HOURS AFTER PLACEMEN IS COMPLETE. FINAL CURING SHALL CONTINUE FOR SEVEN DAYS AFTER PLACEMEN AND SHALL CONSIST OF APPLICATION OF CURING COMPOUND PER ASTM C309. APPL

AT A RATE SUFFICIENT TO RETAIN MOISTURE, BUT NOT LESS THAN 1 GALLON PER 200

SQUARE FEET. COVER CONCRETE WITH POLYETHYLENE PLASTIC TO MAINTAIN

A. CLEANING: THE ENTIRE JOINT SHALL BE THOROUGHLY CLEANED AND WETTED PRIOR

TO A TOLERANCE OF 1/4 INCH (6.35MM) IN 10 FEET (3.05) WHEN TESTED WITH A 10 FOOT

EMPERATURE IF NECESSARY. LAP SEAMS IN THE PLASTIC 6", WEIGH DOWN AND TAPE THE PLASTIC SEAMS AS NEEDED.

TO THE APPLICATION OF ADDITIONAL SHOTCRETE

E. THE CONTRACTOR SHALL FIX ALL CRACKS AND DISPLACEMENTS LARGER THAN 1/16" 3.7 CONCRETE JOINTS

B. REINFORCEMENT: MAKE JOINTS PERPENDICULAR TO THE MAIN REINFORCEMENT. CONTINUE REINFORCEMENT ACROSS JOINTS.

- A. CRACKING FROM INADEQUATE CURING IS NOT ALLOWED. SAW CUT JOINTS AND CONSTRUCTION JOINTS MAY BE SHOWN IN THE CONSTRUCTION DRAWINGS FOR DIAGRAMMATIC PURPOSES ONLY. THE CONTRACTOR MAY, WITH APPROVAL OF THE
- SKATEPARK DESIGNER, RECOMMEND AND DETAIL OTHER JOINTS REQUIRED TO PREVENT CRACKING B. THE CONTRACTOR SHALL FIX ALL CRACKS AND DISPLACEMENTS LARGER THAN 1/16° (1.59MM).

SPOHNCRETE SKATEPARK SYSTEM SPECIFICATIONS (OR APPROVED & PROVEN EQUAL - SEE BIDDER QUALIFICATIONS)

CONCRETE (MATERIAL SPECIFICATIONS)

1 STANDARD: ALL PRE-CAST CONCRETE SKATING SURFACES SHALL BE FINISHED AS SMOOTH NATURAL CONCRETE AND SEALED WITH A CONCRETE SEALER.

1 REINFORCING STEEL SHALL BE NEW BILLET DEFORMED BARS AND WELDED WIRE STEEL MESH AND SHALL CONFORM TO ASTM STANDARD A615 AND A185

RESPECTIVELY. MINIMUM COVER FOR ALL REINFORCING SHALL BE 1".

- 1 COPING: GRADE 304 STAINLESS STEEL PIPE, 2 3/8" SCHEDULE 40, SHALL BE ANCHORED TO CONCRETE RAMP AT 12" ON CENTER WITH STEEL STUDS. 2 EDGE PROTECTION: GRADE 304 STAINLESS STEEL, 2" X 2" X 1/8" THICK PLATE SHALL BE ANCHORED AT 12" ON CENTER. THE AMOUNT OF EDGE PROTECTION CAN BE
- CUSTOMIZED TO SPECIFICATIONS. 3 GRIND PLATE/ BMX PLATE (IF APPLICABLE): GRADE 304 STAINLESS STEEL, 2" X 6" X 1/8" THICK PLATE ANCHORED AT 12" ON CENTER. ALL COMPONENTS WILL BE FITTED WITH GRIND PLATE AS SPECIFIED. THIS PROVIDES EXTRA PROTECTION FOR BMX
- 4 COPING WITH GRIND PLATE/ COPING WITH BMX PLATE: GRADE 304 STAINLESS STEEL PIPE, 2 3/8" SCHEDULE 40, SHALL BE ANCHORED INTO THE CONCRETE RAMP AT 12" ON CENTER USING STEEL STUDS AND WELDED TO 6" X 1/8" ANCHORED STAINLESS STEEL PLATE. TO ELIMINATE DENTS FROM HARD USAGE, THE COPING SHALL BE FILLED WITH
- CONCRETE, FITTED WITH WELDED END CAPS AND THEN GROUND SMOOTH. 5 GRIND RAIL-RECTANGULAR: GRADE 304 STAINLESS STEEL TUBING, 3" X 2" X 1/8" THICKNESS. ALL GRIND RAILS SHALL BE FITTED WITH WELDED END CAPS AND THEN GROUND SMOOTH. VERTICAL SUPPORTS ARE 2' DIAMETER STAINLESS STEEL TUBING WELDED TO THE HORIZONTAL RAIL. THESE ARE CAST OR SURFACE MOUNTED INTO

THE CONCRETE FOUNDATION DURING INSTALLATION UNLESS OTHERWISE SPECIFIED.

- 6 GRIND RAIL-ROUND: GRADE 304 STAINLESS STEEL TUBING 2" DIAMETER. ALL GRIND RAILS SHALL BE FITTED WITH WELDED END CAPS AND THEN GROUND SMOOTH. VERTICAL SUPPORTS ARE 2" DIAMETER STAINLESS STEEL TUBING WELDED TO THE HORIZONTAL RAIL. THESE ARE CAST OR SURFACE MOUNTED INTO THE CONCRETE FOUNDATION DURING INSTALLATION UNLESS OTHERWISE SPECIFIED.
- 7 SAFETY RAILS: BLACK STEEL ROUND TUBING W/ HOT DIPPED GALVANIZED CORROSION RESISTANT FINISH. 2" DIAMETER FRAME, FORMED AND ROUNDED AT CORNERS WITH 1/2" DIAMETER SOLID STEEL ROD EVENLY SPACED AT NO MORE THAN 4" ON CENTER. ALL SAFETY RAILS SHALL BE CAST INTO THE RAMP SURFACE AS STANDARD. SAFETY RAILS SHALL BE A MINIMUM OF 46" HIGH AND SHALL PREVENT PASSAGE OF A SPHERE FOLIAL TO OR GREATER THAN 4" OUTSIDE DIAMETER. SAFETY RAILS ARE CONSTRUCTED IN A MANNER THAT DOES NOT ALLOW A SKATEBOARD UNDERNEATH AND THROUGH THE OPENING BETWEEN THE BOTTOM OF THE RAIL AND THE RESTING DECK. GRADE 304 STAINLESS STEEL TUBING IS OPTIONAL

1 COMPACTED BACKFILL SHALL BE PLACED BY MEANS OF PNEUMATIC TIRE ROLLERS, HOE PACKS, RIDE ON DRUM ROLLER OR OTHER MECHANICAL TAMPERS (PLATE,

APPROVED MATERIAL WITH LOW PLASTICITY 3 BACKFILL MATERIAL SHALL BE PLACED IN LIFTS, WHICH, PRIOR TO COMPACTION, SHALL NOT EXCEED EIGHT (8) INCHES UNLESS OTHERWISE SPECIFIED IN LOCAL

2 BACKFILL MATERIAL SHALL CONSIST OF EXISTING STOCKPILED MATERIAL AND/OR

5 THE IN-PLACE DENSITY SHALL BE A MINIMUM OF 95% OF LABORATORY STANDARD MAXIMUM DRY DENSITY.

COMPACTION REQUIREMENTS OF THIS SECTION, SHALL BE REMOVED, RECOMPACTED,

6678.14 PSI

6773.59 PSI

3 ANY PORTION OF THE TRENCH BACKFILL WHICH DOES NOT MEET THE MINIMUM

4 PRIOR TO COMPACTION, EACH LAYER SHALL BE EVENLY SPREAD AND MOISTENED.

AND RE-TESTED AT THE COST OF THE CONTRACTOR UNTIL PASSING TESTS ARE

1 CONCRETE MANUFACTURING AND TESTING PRACTICES ARE UNDERTAKEN IN ACCORDANCE WITH THE NATIONAL PRECAST CONCRETE ASSOCIATION (NPCA), CANADIAN STANDARDS ASSOCIATION, AND AMERICAN STANDARDS & TESTING METHODS (ASTM) STANDARDS.

1 ANNUAL BOOK OF ASTM STANDARDS, ASTM C 33 - STANDARD SPECIFICATION FOR CONCRETE AGGREGATES, VOL. 04.02, AMERICAN SOCIETY FOR TESTING AND MATERIALS, CONSHOHOCKEN, PENNSYLVANIA. 1998

RAMMER, OR WALK BEHIND ROLLER).

BUILDING CODES OR PRACTICES.

COMPRESSIVE STRENGTH TEST 1 TESTED IN ACCORDANCE WITH CSA STANDARD A23.3-9C.

2 DATE RECEIVED IN LABORATORY: FEBRUARY 2, 2010

28 DAYS 3/2/10

28 DAYS 3/2/10

5 CAST BY: JP TESTED BY: JP		
AVERAGE	COMPRESSIVE	
DIAMETER	STRENGTH	
0 4"	5599.87 PSI	
0 4"	5508.35 PSI	
	AVERAGE DIAMETER	

3 CEMENT TYPE: TYPE II NORMAL PORTLAND.

4 SPECIFIED STRENGTH: 6000 PSI (41 MPA)

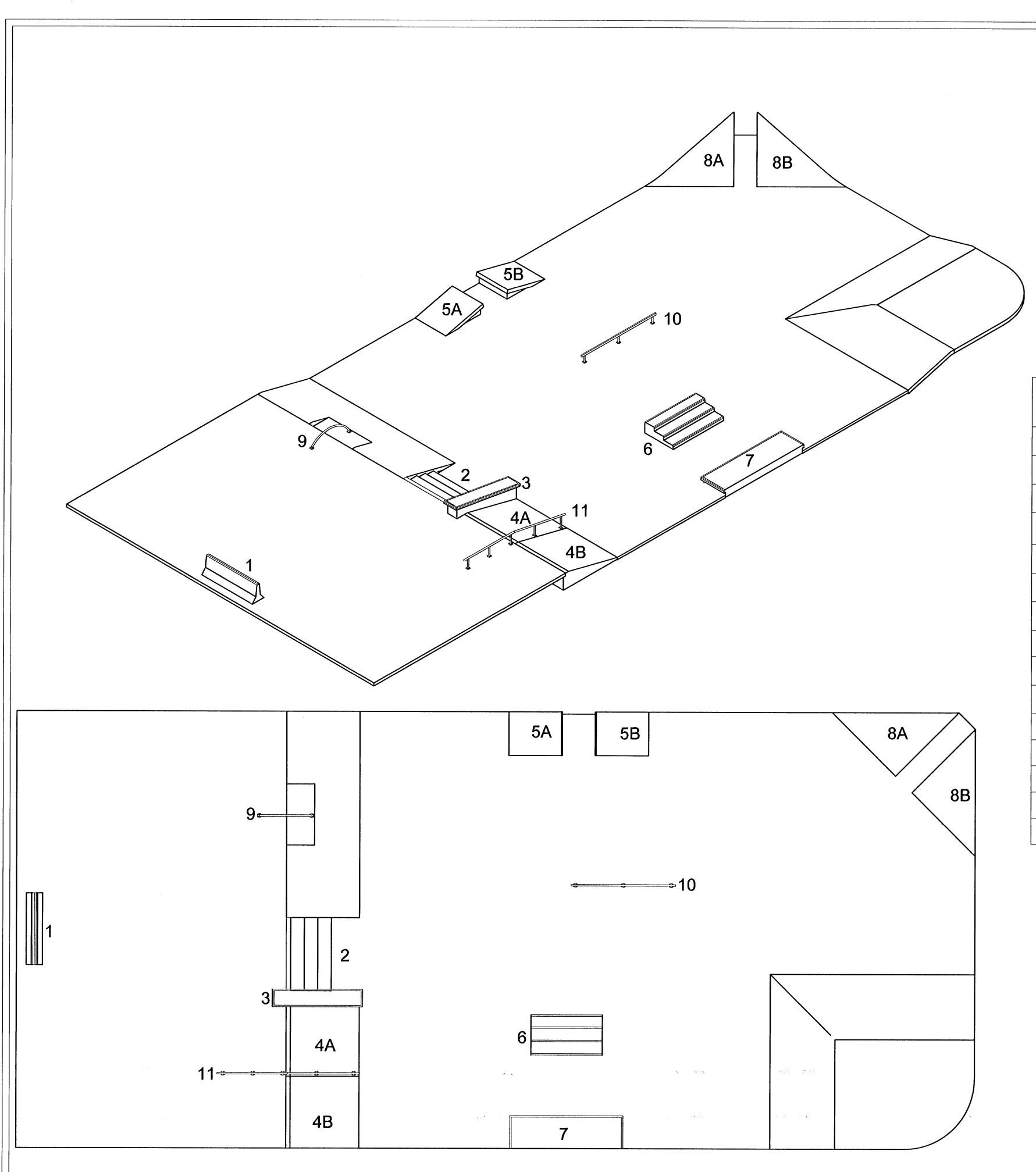


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SPOHN SKATE

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SHEET NO.



	COMP	ONENT	LIST - ALL DIMS ARE NOMINAL	
REF#	CODE	NEW#	DESCRIPTION	QTY
1	JB001-1	110242	JERSEY BARRIER 8'-3"L x 1'-10"W x 2'H	1
2	TR2060-1	110855	STAIR 5'-2"L x 8'-6"W x 2'H	1
3	HL098-1	110219	HUBBA LEDGE 8'-6"L x 2'W x 3'-6"H	1
4	B2060-1	110039	14° BANK 8'-6"L x 8'-3"W x 2'H	2
5	B2060-1	110039	14° BANK 6'L x 5'W x 1'-6"H	2
6	OB003-12	110326	TRI MANUAL PAD 4'-7"L x 8'-3"W x 1'-6"H	2
7	OB001-1	110319	MANUAL PAD 3'-9"L x 13'W x 1'H	1
8	PC098-1	110073	BANK CORNER 10'-3"L x 10'-3"W x 3'-3"H	2
		110148	S.S. COPING	16ft.
9		110236	S.S. GRIND RAIL	7ft.
10		110236	S.S. GRIND RAIL	12ft.
11		110236	S.S. GRIND RAIL	17ft.
		110018	2x2 S.S. EDGE PROTECTION	88ft.
		110020	2x6 S.S. EDGE PROTECTION	15ft.

