

Final Opinion of Probable Cost
New Hampton CSD Track Improvements, City of New Hampton, Iowa
Project No. 21-1107

BASE BID

| NO. | CODE | DESCRIPTION | QUANTITY | UNIT | UNIT PRICE | TOTAL PRICE |
|-----|------------|--|----------|------|---------------|-------------|
| 1 | 2010-D-3 | TOPSOIL, OFF-SITE | 40 | CY | \$ 20.00 | \$ 800 |
| 2 | 2010-E | EXCAVATION, CLASS 10 | 75 | CY | \$ 12.00 | \$ 900 |
| 3 | 7020-B | PAVEMENT, HMA 4" (THICK) | 43 | SY | \$ 45.00 | \$ 1,935 |
| 4 | 7020-B | PAVEMENT, HMA 1.5" (THICK) | 2073 | SY | \$ 15.00 | \$ 31,095 |
| 5 | 7040-G | MILLING, HMA | 2073 | SY | \$ 4.00 | \$ 8,292 |
| 6 | 7040-999-A | CRACK REPAIR | 1000 | LF | \$ 13.00 | \$ 13,000 |
| 7 | 9010-A1 | CONVENTIONAL SEEDING, FERTILIZING, AND MULCHING | 1 | LS | \$ 750.00 | \$ 750 |
| 8 | 9020-999-A | CUT AND SALVAGE SOD, REINSTALL | 120 | SQ | \$ 50.00 | \$ 6,000 |
| 9 | 9060-A | CHAIN LINK FENCE, 4' | 8 | LF | \$ 45.00 | \$ 360 |
| 10 | 9060-B | GATE, 16' WIDE, DOUBLE SWING | 1 | EA | \$ 2,000.00 | \$ 2,000 |
| 11 | 9060-E | REMOVAL OF FENCE | 24 | LF | \$ 8.00 | \$ 192 |
| 12 | 11,020-A | MOBILIZATION | 1 | LS | \$ 13,000.00 | \$ 13,000 |
| 13 | 0000-999-A | REMOVE EXISTING ALL-WEATHER ATHLETIC SURFACING | 1 | LS | \$ 9,000.00 | \$ 9,000 |
| 14 | 0000-999-B | INSTALL NEW ALL-WEATHER ATHLETIC SURFACING | 1 | LS | \$ 115,000.00 | \$ 115,000 |

ESTIMATED BASE BID CONTACT AMOUNT \$ 202,324

ALTERNATE 1 - HIGH JUMP RESURFACING

| NO. | CODE | DESCRIPTION | QUANTITY | UNIT | UNIT PRICE | TOTAL PRICE |
|-----|------------|---|----------|------|--------------|-------------|
| 1.1 | 0000-999-A | REMOVE EXISTING ALL-WEATHER ATHLETIC SURFACING | 1 | LS | \$ 1,500.00 | \$ 1,500 |
| 2.1 | 0000-999-C | INSTALL NEW ALL-WEATHER ATHLETIC SURFACING | 1 | LS | \$ 13,500.00 | \$ 13,500 |

ESTIMATED ALTERNATE 1 CONTRACT AMOUNT \$ 15,000

ALTERNATE 2 - NEW HIGH JUMP

| NO. | CODE | DESCRIPTION | QUANTITY | UNIT | UNIT PRICE | TOTAL PRICE |
|------|------------|--|----------|------|--------------|-------------|
| 1.2 | 2010-E | EXCAVATION, CLASS 10 | 210 | CY | \$ 12.00 | \$ 2,520 |
| 2.2 | 2010-I | SUBBASE, MODIFIED 6" THICK | 764 | SY | \$ 7.50 | \$ 5,730 |
| 3.2 | 6010-B | INTAKE, 18" DIA. NYLOPLAST W/ GRATED TOP | 3 | EA | \$ 3,500.00 | \$ 10,500 |
| 4.2 | 6010-H | REMOVE INTAKE | 1 | EA | \$ 500.00 | \$ 500 |
| 5.2 | 7010-A | PAVEMENT, PCC, 5" (THICK) | 14 | SY | \$ 75.00 | \$ 1,050 |
| 6.2 | 7020-B | PAVEMENT, HMA 4" (THICK) | 740 | SY | \$ 35.00 | \$ 25,900 |
| 7.2 | 7030-A | PAVEMENT REMOVAL | 578 | SY | \$ 8.00 | \$ 4,624 |
| 8.2 | 9010-A | CONVENTIONAL SEEDING, FERTILIZING, AND MULCHING | 0.13 | AC | \$ 6,000.00 | \$ 780 |
| 9.2 | 9060-A | CHAIN LINK FENCE, 4' | 22 | LF | \$ 35.00 | \$ 770 |
| 10.2 | 9060-E | REMOVAL OF FENCE | 28 | LF | \$ 8.00 | \$ 224 |
| 11.2 | 9060-B | GATE, 12' WIDE, DOUBLE SWING | 1 | EA | \$ 1,600.00 | \$ 1,600 |
| 12.2 | 0000-999-C | INSTALL NEW ALL-WEATHER ATHLETIC SURFACING | 1 | LS | \$ 18,000.00 | \$ 18,000 |
| 13.2 | 0000-999-D | RELOCATE PLAY CLOCK | 1 | LS | \$ 2,000.00 | \$ 2,000 |

ESTIMATED ALTERNATE 2 CONTRACT AMOUNT \$ 74,198

ALTERNATE 3 - NEW VISITOR'S ACCESS PATH


| NO. | CODE | DESCRIPTION | QUANTITY | UNIT | UNIT PRICE | TOTAL PRICE |
|--|----------|---|----------|------|-------------|------------------|
| 1.3 | 2010-E | EXCAVATION, CLASS 10 | 98 | CY | \$ 12.00 | \$ 1,176 |
| 2.3 | 2010-I | SUBBASE, MODIFIED 4" THICK | 365 | SY | \$ 5.50 | \$ 2,008 |
| 3.3 | 7030-E | PCC SIDEWALK, 5" (THICK) | 324 | SY | \$ 60.00 | \$ 19,440 |
| 4.3 | 9010-A | CONVENTIONAL SEEDING, FERTILIZING, AND MULCHING | 0.51 | AC | \$ 6,000.00 | \$ 3,060 |
| 5.3 | 9040-N-1 | SILT FENCE OR SILT FENCE DITCH CHECK | 100 | LF | \$ 5.00 | \$ 500 |
| 6.3 | 9040-N-2 | SILT FENCE OR SILT FENCE DITCH CHECK, REMOVAL OF SEDIMENT | 100 | LF | \$ 1.00 | \$ 100 |
| 7.3 | 9040-N-3 | SILT FENCE OR SILT FENCE DITCH CHECK, REMOVAL OF DEVICE | 100 | LF | \$ 2.00 | \$ 200 |
| ESTIMATED ALTERNATE 3 CONTRACT AMOUNT | | | | | | \$ 26,484 |

ALTERNATE 4 - SOUTH TRACK RUNOUT EXTENSION

| NO. | CODE | DESCRIPTION | QUANTITY | UNIT | UNIT PRICE | TOTAL PRICE |
|--|------------|---|----------|------|-------------|------------------|
| 1.4 | 2010-E | EXCAVATION, CLASS 10 | 10 | CY | \$ 12.00 | \$ 120 |
| 2.4 | 2010-I | SUBBASE, MODIFIED 6" THICK | 221 | SY | \$ 7.50 | \$ 1,658 |
| 3.4 | 2010-999-A | FILL, PROVIDE & PLACE | 40 | SY | \$ 20.00 | \$ 800 |
| 4.4 | 7020-B | PAVEMENT, HMA 4" (THICK) | 191 | SY | \$ 35.00 | \$ 6,685 |
| 5.4 | 7030-A | PAVEMENT REMOVAL, HMA | 17 | SY | \$ 8.00 | \$ 136 |
| 6.4 | 7030-A | PAVEMENT REMOVAL, PCC | 6 | SY | \$ 8.00 | \$ 48 |
| 7.4 | 9010-A | CONVENTIONAL SEEDING, FERTILIZING, AND MULCHING | 1 | LS | \$ 250.00 | \$ 250 |
| 8.4 | 9060-A | CHAIN LINK FENCE, 4' | 88 | LF | \$ 35.00 | \$ 3,080 |
| 9.4 | 0000-999-E | INSTALL NEW ALL-WEATHER ATHLETIC SURFACING | 1 | LS | \$ 4,500.00 | \$ 4,500 |
| ESTIMATED ALTERNATE 4 CONTRACT AMOUNT | | | | | | \$ 17,277 |

ALTERNATE 5 - HMA PERIMETER MAT

| NO. | CODE | DESCRIPTION | QUANTITY | UNIT | UNIT PRICE | TOTAL PRICE |
|--|------------|--|----------|------|------------|------------------|
| 1.5 | 7020-B | PAVEMENT, HMA 3" (THICK) | 453 | SY | \$ 50.00 | \$ 22,650 |
| 2.5 | 7020-999-A | OUTER PERIMETER, HMA SURFACE PREPARATION | 453 | SY | \$ 4.00 | \$ 1,812 |
| ESTIMATED ALTERNATE 5 CONTRACT AMOUNT | | | | | | \$ 24,462 |



 Jon Biederman, PE, LSI
 Senior Project Manager

Dated: December 9, 2021

TRACK IMPROVEMENTS FOR NEW HAMPTON CSD, IOWA

21-1107

CHICKASAW COUNTY

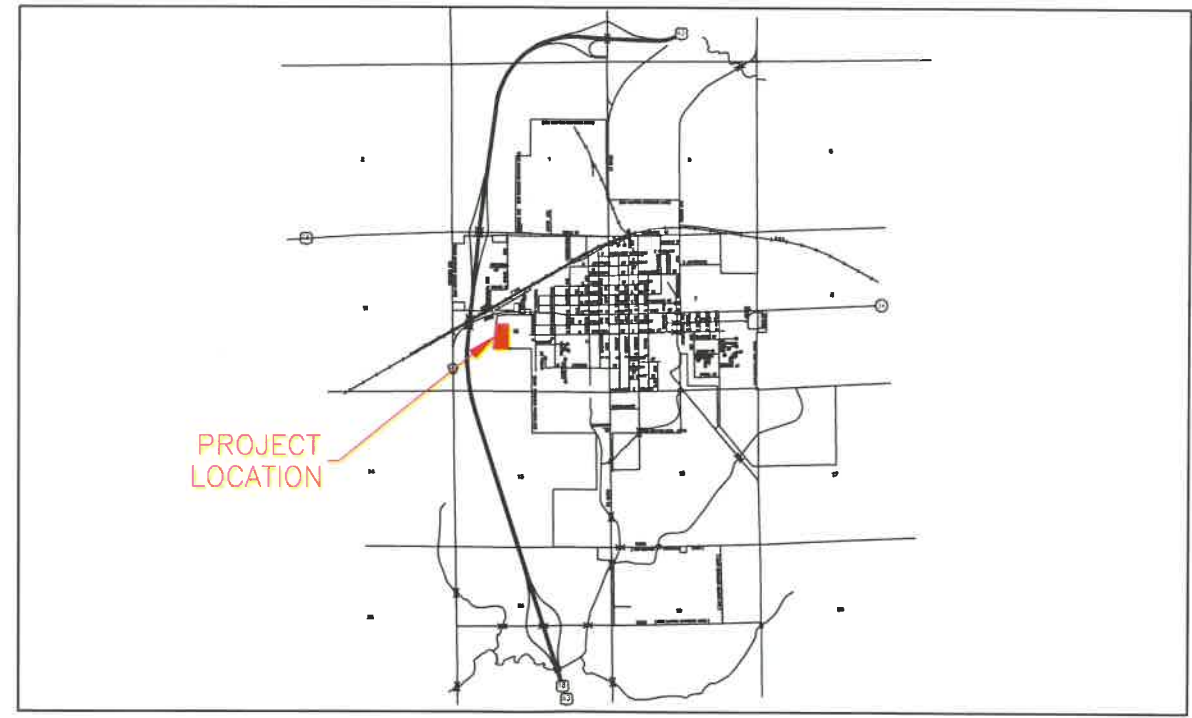
DECEMBER 2021



Sheet List Table

| Sheet Number | Sheet Title |
|--------------|--------------------------------------|
| A.01 | TITLE |
| A.02 | LEGEND |
| A.03 | BASE BID - ALTERNATE MAP |
| C.01 | GENERAL NOTES & ESTIMATED QUANTITIES |
| C.02 | SUPPLEMENTAL SPECIFICATIONS |
| C.03 | SUPPLEMENTAL SPECIFICATIONS |
| C.04 | EXISTING CONDITIONS |
| C.05 | REMOVALS |
| D.01 | BASE BID SITE PLAN |
| D.02 | INTERIOR TRACK CUT-FILL MAP |
| D.03 | ALTERNATES SITE PLAN |
| U.01 | DETAILS |
| U.02 | DETAILS |
| U.03 | DETAILS |

THE 2021 VERSION OF THE URBAN STANDARD SPECIFICATIONS FOR PUBLIC IMPROVEMENTS, ALSO KNOWN AS SUDAS (2021), PLUS FEHR GRAHAM SUPPLEMENTAL SPECIFICATIONS AND SPECIAL PROVISIONS SHALL APPLY TO CONSTRUCTION WORK ON THIS PROJECT.



LOCATION MAP

| | |
|-----------|---|
| OWNER/DEV | NEW HAMPTON CSD |
| ADDRESS | 710 WEST MAIN STREET NEW HAMPTON, IA 50659 |
| P# | 641-394-2134 |



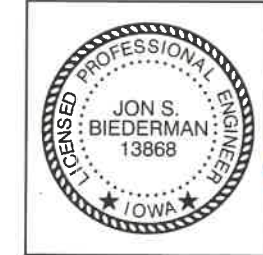
FEHR GRAHAM

ENGINEERING & ENVIRONMENTAL

ILLINOIS IOWA WISCONSIN

WEST UNION, IOWA
128 S VINE STREET
WEST UNION, IA 52175
P# (563) 422-5131

BID SET



I hereby certify that this engineering document was prepared by me or under my direct personal supervision and that I am a duly licensed Professional Engineer under the laws of the State of Iowa.

[Signature] Date: 12/10/2021
Jon S. Biederman, P.E.
License Number 13868
My license renewal date is December 31, 2022.
Pages or sheets covered by this seal: All

UTILITIES

| UTILITY TYPE | COMMON NAME |
|---------------|---------------------------------|
| WATER & SEWER | CITY OF NEW HAMPTON |
| ELECTRIC | NEW HAMPTON MUNICIPAL UTILITIES |
| TELEPHONE | WINDSTREAM |
| GAS | BLACK HILLS ENERGY |
| CABLE | WINDSTREAM |

(CONTRACTOR TO BE RESPONSIBLE FOR ANY ADJUSTMENTS TO BE MADE.)

| ORIGINAL SET FOR PROJECT: 21-1107 | | DATE CREATED: DEC 2021 |
|-----------------------------------|-------------|------------------------|
| REVISIONS | | |
| REV. NO. | DESCRIPTION | DATE |
| | | |
| | | |
| | | |
| | | |
| | | |
| | | |

ABBREVIATIONS

| | |
|-----------|---|
| < | ANGLE |
| ABC | AGGREGATE BASE COURSE |
| AC | ACRE(S) |
| ACI | AMERICAN CONCRETE INSTITUTE |
| AGR | AGGREGATE |
| AISC | AMERICAN INSTITUTE OF STEEL CONSTRUCTION |
| ALT | ALTERNATE |
| ARCH | ARCHITECT |
| ASPH | ASPHALT |
| ASTM | AMERICAN SOCIETY OF TESTING AND MATERIALS |
| B | BALL VALVE |
| BFP | BACKFLOW PREVENTER |
| BIT | BITUMINOUS |
| BLDG | BUILDING |
| BLK | BLOCKING |
| BM | BENCHMARK |
| BOT | BOTTOM |
| BSMT | BASEMENT |
| BV | BUTTERFLY VALVE |
| B-W | BACK-TO-BACK OF CURB DIMENSION |
| CL or C | CENTERLINE |
| C TO C | CENTER TO CENTER |
| C & G | CURB AND GUTTER |
| CF | CUBIC FEET |
| CHD | CHORD LENGTH |
| CI | CAST IRON PIPE |
| CHK | CHECK VALVE |
| CLR | CLEAR |
| CMP | CORRUGATED METAL PIPE |
| CMU | CONCRETE MASONRY UNIT |
| CTY | COUNTY |
| CONC | CONCRETE |
| CONT | CONTINUOUS |
| C-B | CENTERLINE TO BACK OF CURB DIMENSION |
| COORD | COORDINATE |
| CJ | COPPER PIPING |
| CTRS | CENTERS |
| CY | CUBIC YARDS |
| CS | CORPORATION STOP |
| D | DEGREE OF CURVE |
| DEP | DEPRESSED |
| DET | DETAIL |
| DIAG | DIAGONAL |
| DIM | DIMENSION |
| DI | DUCTILE IRON PIPE |
| DN | DOWN |
| DNSTR | DOWNSTREAM |
| DP | DRAINAGE PIPE/STORM PIPE |
| DWG | DRAWING |
| E | EAST |
| EJ | EXPANSION JOINT |
| EL | ELEVATION |
| EP | EDGE OF PAVEMENT |
| EQUIP | EQUIPMENT |
| EQUIV | EQUIVALENT |
| EW | EACH WAY |
| EXP | EXPANSION |
| EX, EXIST | EXISTING |
| EXT | EXTERIOR |
| E = | EXTERNAL DISTANCE |
| FD | FLOOR DRAIN |
| FDN | FOUNDATION |
| FE | FIELD ENTRANCE |
| FF | FINISH FLOOR |
| FIL | FILLET |
| FIN | FINISH |
| FL | FLOW LINE |
| FLR | FLOOR |
| FM | FORCE MAIN |
| FND | FOUND |
| FRMG | FRAMING |
| FTC | FOOTING |
| F-F | FACE TO FACE |
| GA | GAUGE |
| GI | GALVANIZED IRON PIPE |
| GRD | GRADE |
| GRS | GRATING SUPPORT |
| GRT | GROUT |
| GV | GAS VALVE |
| GYP | GYPSPUM |
| HSE | HOUSE |
| HC | HORIZONTAL CURVE |
| HMA | HOT MIX ASPHALT |
| HNGR | HANGER |
| HORIZ | HORIZONTAL |
| H.P. | HIGH POINT |
| HW | HOT WATER |
| HWH | HOT WATER HEATER |
| Δ = | CENTRAL ANGLE |
| I | MOMENT OF INERTIA |
| ID | INSIDE DIAMETER |
| INT | INTERIOR |
| INV | INVERT ELEVATION; BASED ON BENCH MARK DATUM |
| IP | IRON PIPE |
| JST | JOIST |
| L | LENGTH OF CURVE |
| LAT | LATERAL |
| LAV | LAVATORY |
| LF | LINEAL FEET |
| L.P. | LOW POINT |
| LT | LEFT OF SURVEY BASE LINE |
| MAX | MAXIMUM |
| ME | MATCH EXISTING |
| MH | MANHOLE |
| MIN | MINIMUM |
| MJ | MECHANICAL JOINT |
| MTL | METAL |
| N | NORTH |
| No. OR # | NUMBER |
| NOM | NOMINAL |
| NTS | NOT TO SCALE |
| OC | ON CENTER |
| OD | OUTSIDE DIAMETER |
| OO | OUTSIDE TO OUTSIDE |
| OPNG | OPENING |
| OPP | OPPOSITE |
| PC | POINT OF CURVATURE |
| PCC | PORTLAND CEMENT CONCRETE |
| PCF | POUNDS PER CUBIC FOOT |
| PDP | PERFORATED DRAIN PIPE |

| | |
|----------|--|
| PE | POLYETHYLENE PIPE |
| PI | POINT OF INTERSECTION |
| PL | PLATE |
| PLG | PLUG VALVE |
| PLP | POLYPROPYLENE PIPE |
| PLYWD | PLYWOOD |
| PM | PRINCIPAL MERIDIAN |
| PR | PRESSURE REGULATORS |
| PRC | POINT OF REVERSE CURVATURE |
| PRESS | PRESSURE |
| PR, PROP | PROPOSED |
| PRV | PRESSURE REDUCING VALVE |
| PSF | POUNDS PER SQUARE FOOT |
| PSI | POUNDS PER SQUARE INCH |
| PSL | PIPE SLEEVE |
| PT | POINT OF TANGENCY |
| PLG | PLUG VALVE |
| PVC | POLYVINYL CHLORIDE (PLASTIC) PIPE |
| R | RADIUS |
| RDCR | REDUCER |
| ROCP | REINFORCED CONCRETE CYLINDER PIPE |
| RCP | REINFORCED CONCRETE PIPE |
| RD | ROOF DRAIN |
| REINF | REINFORCING |
| REQD | REQUIRED |
| ROW | RIGHT OF WAY |
| RFTR | RAFTER |
| RND | ROUND |
| RR | RAILROAD |
| RRSP | RAILROAD SPIKE |
| RT | RIGHT |
| R&R | REMOVE AND REPLACE |
| S | SOUTH |
| SB | STREAM BED |
| SCHED | SCHEDULE |
| ROCP | REINFORCED CONCRETE PIPE |
| RCP | REINFORCED CONCRETE PIPE |
| SEC | SECTION |
| SP | SQUARE FEET |
| SHR | SHOWER |
| SHT | SHEET |
| SHTG | SHEATHING |
| SP | SANITARY PIPE |
| SPA | SPACING OR SPACES |
| SPEC | SPECIFICATION |
| SQ | SQUARE |
| SS | SANITARY SERVICE |
| STA | STATION |
| STD | STANDARD |
| STL | STEEL |
| STRUCT | STRUCTURAL |
| SW | SIDEWALK |
| SY | SQUARE YARDS |
| SYM | SYMMETRICAL |
| TAN | TANGENT LENGTH |
| TBC | TOP BACK OF CURB |
| TBM | TEMPORARY BENCH MARK; BASED ON BENCHMARK DATUM |
| TD | TILE DRAIN |
| THK | THICK |
| TR | TREAD |
| TY | TYPE |
| TYP | TYPICAL |
| UAC | USE AS CONSTRUCTED |
| U.O.N. | UNLESS OTHERWISE NOTED |
| UP | UTILITY POLE |
| UPSTR | UPSTREAM |
| UR | URINAL |
| USGS | US GEOLOGICAL SURVEY |
| VC | VERTICAL CURVE |
| VCP | VITRIFIED CLAY PIPE |
| VERT | VERTICAL |
| VOL | VOLUME |
| VPC | VERTICAL POINT OF CURVATURE |
| VPI | VERTICAL POINT OF INTERSECTION |
| VPRC | VERTICAL POINT OF REVERSE CURVATURE |
| VPT | VERTICAL POINT OF TANGENCY |
| W | WEST |
| WC | WATER CLOSET |
| WF | WATER FLANGE |
| WM | WATER MAIN |
| WMO | WATER MAIN QUALITY |
| WV | WATER VALVE |
| WGT | WEIGHT |
| WP | WEATHER PROOF |
| WS | WATER SERVICE |
| WWF | WELDED WIRE FABRIC |
| W/O | WITHOUT |
| XP | EXPLOSION PROOF |

HATCH PATTERNS

| | | | |
|--|---------------------|--|--------------------------|
| | EARTH - FILL | | BRICK |
| | EARTH - UNDISTURBED | | STEEL |
| | ROCK (GEOLOGICAL) | | INSULATION (LOOSE/ BATT) |
| | STONE OR RIP RAP | | INSULATION (RIGID) |
| | GRAVEL | | WOOD (ROUGH) |
| | CONCRETE | | WOOD (BLOCKING) |
| | CONCRETE BLOCK | | WOOD (FINISH) |
| | CMU | | DETECTABLE WARNING |
| | ASPHALT PAVEMENT | | |

SYMBOLS

| | | EXISTING | PROPOSED | | | EXISTING | PROPOSED |
|------------------------|------------------------|----------|----------|-----------------|------------------------|----------|----------|
| CIVIL | WATER | | | EXISTING | WATER | | |
| MISC | SANITARY SEWER | | | EXISTING | STORM SEWER | | |
| UTILITY | TRAFFIC RELATED | | | EXISTING | EROSION CONTROL | | |
| TRAFFIC RELATED | | | | EXISTING | | | |

FEHR GRAHAM
ENGINEERING & ENVIRONMENTAL

ILLINOIS
IOWA
WISCONSIN

OWNER/DEVELOPER:
NEW HAMPTON CSD
710 WEST MAIN STREET
NEW HAMPTON, IA 50659

PROJECT AND LOCATION:
TRACK IMPROVEMENTS
NEW HAMPTON CSD, IOWA

DRAWN BY: JCB
APPROVED BY: JSB
DATE: DEC 2021
SCALE: AS NOTED

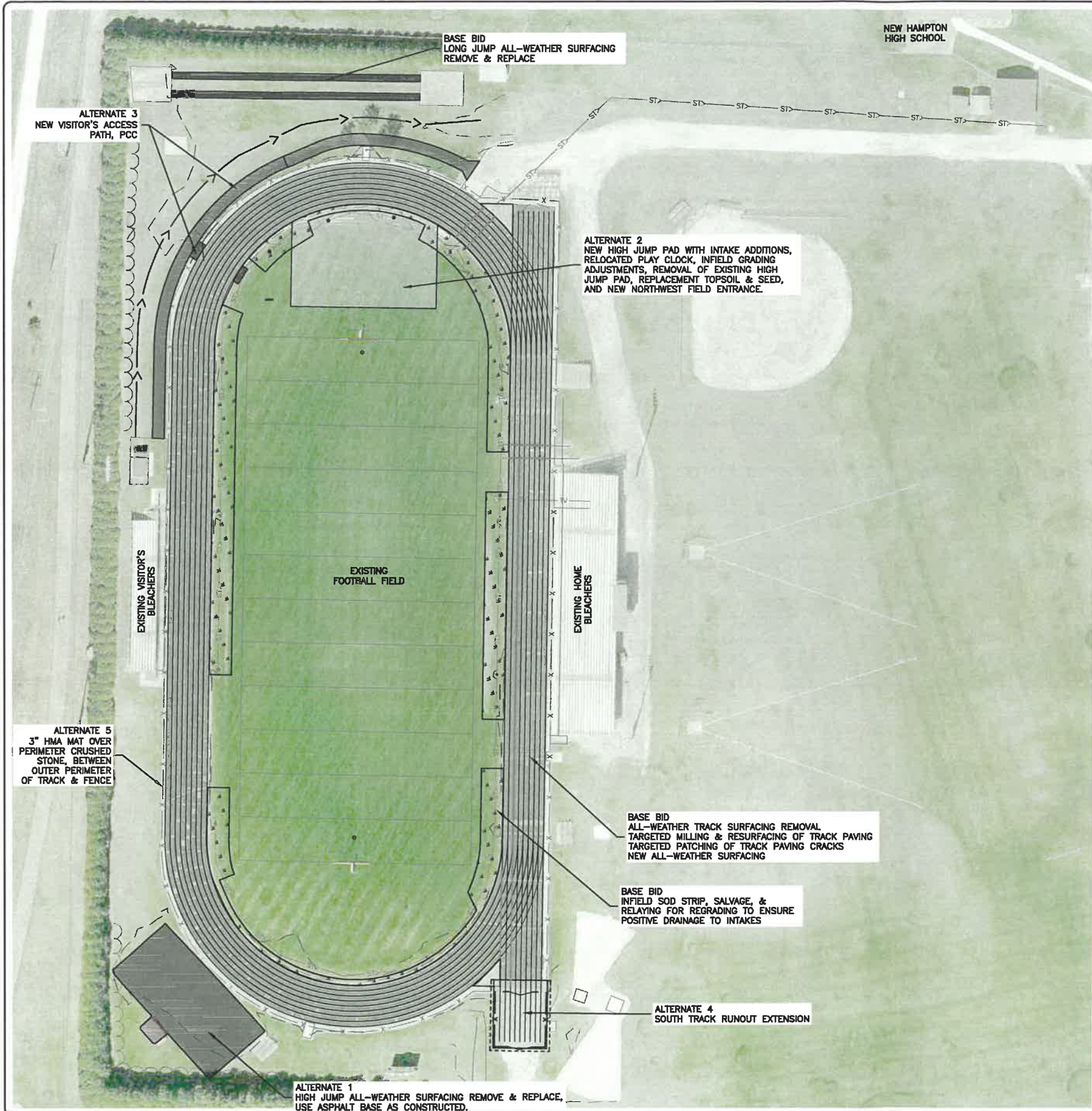
| REV. NO. | DESCRIPTION | DATE |
|----------|-------------|------|
| | | |
| | | |
| | | |

DRAWING:
LEGEND

SET TYPE: **BID SET**

JOB NUMBER:
21-1107

SHEET NUMBER:
A.02



FEHR GRAHAM
ENGINEERING & ENVIRONMENTAL

ILLINOIS
IOWA
WISCONSIN

OWNER/DEVELOPER:
NEW HAMPTON CSD
710 WEST MAIN STREET
NEW HAMPTON, IA 50659

PROJECT AND LOCATION:
TRACK IMPROVEMENTS
NEW HAMPTON CSD, IOWA

DRAWN BY: JCB
APPROVED BY: JSB
DATE: DEC 2021
SCALE: AS NOTED

| REVISIONS | | |
|-----------|-------------|------|
| REV. NO. | DESCRIPTION | DATE |
| | | |
| | | |
| | | |

DRAWING:
BASE BID - ALTERNATE MAP

SET TYPE: BID SET

JOB NUMBER:
21-1107

SHEET NUMBER:
A.03

ESTIMATED QUANTITIES

GENERAL NOTES

| BASE BID | | | | |
|----------|------------|---|----------|------|
| NO. | CODE | DESCRIPTION | QUANTITY | UNIT |
| 1 | 2010-D-3 | TOPSOIL, OFF-SITE | 40 | CY |
| 2 | 2010-E | EXCAVATION, CLASS 10 | 75 | CY |
| 3 | 7020-B | PAVEMENT, HMA 4" (THICK) | 43 | SY |
| 4 | 7020-B | PAVEMENT, HMA 1.5" (THICK) | 2073 | SY |
| 5 | 7040-G | MILLING, HMA | 2073 | SY |
| 6 | 7040-999-A | CRACK REPAIR | 1000.0 | LF |
| 7 | 9010-A1 | CONVENTIONAL SEEDING, FERTILIZING, AND MULCHING | 1 | LS |
| 8 | 9020-999-A | CUT AND SALVAGE SOD, REINSTALL | 120 | SQ |
| 9 | 9060-A | CHAIN LINK FENCE, 4' | 8 | LF |
| 10 | 9060-B | GATE, 16' WIDE, DOUBLE SWING | 1 | EA |
| 11 | 9060-E | REMOVAL OF FENCE | 24 | LF |
| 12 | 11,020-A | MOBILIZATION | 1 | LS |
| 13 | 0000-999-A | REMOVE EXISTING ALL-WEATHER ATHLETIC SURFACING | 1 | LS |
| 14 | 0000-999-B | INSTALL NEW ALL-WEATHER ATHLETIC SURFACING | 1 | LS |

| ALTERNATE 1 - HIGH JUMP RESURFACING | | | | |
|-------------------------------------|------------|--|----------|------|
| NO. | CODE | DESCRIPTION | QUANTITY | UNIT |
| 1.1 | 0000-999-A | REMOVE EXISTING ALL-WEATHER ATHLETIC SURFACING | 1 | LS |
| 2.1 | 0000-999-C | INSTALL NEW ALL-WEATHER ATHLETIC SURFACING | 1 | LS |

| ALTERNATE 2 - NEW HIGH JUMP | | | | |
|-----------------------------|------------|---|----------|------|
| NO. | CODE | DESCRIPTION | QUANTITY | UNIT |
| 1.2 | 2010-E | EXCAVATION, CLASS 10 | 210 | CY |
| 2.2 | 2010-I | SUBBASE, MODIFIED 6" THICK | 764 | SY |
| 3.2 | 6010-B | INTAKE, 18" DIA. NYLOPLAST W/ GRATED TOP | 3 | EA |
| 4.2 | 6010-H | REMOVE INTAKE | 1 | EA |
| 5.2 | 7010-A | PAVEMENT, PCC, 5" (THICK) | 14 | SY |
| 6.2 | 7020-B | PAVEMENT, HMA 4" (THICK) | 740 | SY |
| 7.2 | 7030-A | PAVEMENT REMOVAL | 578 | SY |
| 8.2 | 9010-A | CONVENTIONAL SEEDING, FERTILIZING, AND MULCHING | 0.13 | AC |
| 9.2 | 9060-A | CHAIN LINK FENCE, 4' | 22 | LF |
| 10.2 | 9060-E | REMOVAL OF FENCE | 28 | LF |
| 11.2 | 9060-B | GATE, 12' WIDE, DOUBLE SWING | 1 | EA |
| 12.2 | 0000-999-C | INSTALL NEW ALL-WEATHER ATHLETIC SURFACING | 1 | LS |
| 13.2 | 0000-999-D | RELOCATE PLAY CLOCK | 1 | LS |

| ALTERNATE 3 - NEW VISITOR'S ACCESS PATH | | | | |
|---|----------|---|----------|------|
| NO. | CODE | DESCRIPTION | QUANTITY | UNIT |
| 1.3 | 2010-E | EXCAVATION, CLASS 10 | 98 | CY |
| 2.3 | 2010-I | SUBBASE, MODIFIED 4" THICK | 365 | SY |
| 3.3 | 7030-E | PCC SIDEWALK, 5" (THICK) | 324 | SY |
| 4.3 | 9010-A | CONVENTIONAL SEEDING, FERTILIZING, AND MULCHING | 0.51 | AC |
| 5.3 | 9040-N-1 | SILT FENCE OR SILT FENCE DITCH CHECK | 100 | LF |
| 6.3 | 9040-N-2 | SILT FENCE OR SILT FENCE DITCH CHECK, REMOVAL OF SEDIMENT | 100 | LF |
| 7.3 | 9040-N-3 | SILT FENCE OR SILT FENCE DITCH CHECK, REMOVAL OF DEVICE | 100 | LF |

| ALTERNATE 4 - SOUTH TRACK RUNOUT EXTENSION | | | | |
|--|------------|---|----------|------|
| NO. | CODE | DESCRIPTION | QUANTITY | UNIT |
| 1.4 | 2010-E | EXCAVATION, CLASS 10 | 10 | CY |
| 2.4 | 2010-I | SUBBASE, MODIFIED 6" THICK | 221 | SY |
| 3.4 | 2010-999-A | FILL, PROVIDE & PLACE | 40 | SY |
| 4.4 | 7020-B | PAVEMENT, HMA 4" (THICK) | 191 | SY |
| 5.4 | 7030-A | PAVEMENT REMOVAL, HMA | 17 | SY |
| 6.4 | 7030-A | PAVEMENT REMOVAL, PCC | 6 | SY |
| 7.4 | 9010-A | CONVENTIONAL SEEDING, FERTILIZING, AND MULCHING | 1 | LS |
| 8.4 | 9060-A | CHAIN LINK FENCE, 4' | 88 | LF |
| 9.4 | 0000-999-E | INSTALL NEW ALL-WEATHER ATHLETIC SURFACING | 1 | LS |

| ALTERNATE 5 - HMA PERIMETER MAT | | | | |
|---------------------------------|------------|--|----------|------|
| NO. | CODE | DESCRIPTION | QUANTITY | UNIT |
| 1.5 | 7020-B | PAVEMENT, HMA 3" (THICK) | 453 | SY |
| 2.5 | 7020-999-A | OUTER PERIMETER, HMA SURFACE PREPARATION | 453 | SY |

- All work shall conform to and be performed in accordance with all applicable codes and ordinances.
- The Urban Standard Specifications for Public Improvements (SUDAS), 2021 edition plus Supplemental Specifications and Special Provisions as prepared by Fehr Graham shall be considered a part of these documents as if bound herein.
- The quantities indicated on the proposal form are approximate only, and do not constitute a warranty or guarantee by the Jurisdiction as to the actual quantities involved in the work. Such quantities are to be used for the purpose of comparison of bids and determining the amount of bid security, contract, and performance, payment, and maintenance bond. In the event of discrepancies between unit prices and unit price extensions listed in a bidder's proposal, unit prices shall govern and unit price extensions shall be corrected, as necessary, for agreement with unit prices. The Jurisdiction expressly reserves the right to increase or decrease the quantities during construction, and to make reasonable changes in design, provided such changes do not materially change the intent of the contract. The amount of work to be paid for shall be based upon the actual quantities performed.
- Construction Survey for this project to be provided by the Owner.
- The CONTRACTOR shall notify all appropriate engineering departments and utility companies prior to construction. All necessary precautions shall be taken to avoid damage to any existing utility. Iowa Code 480, Underground Facilities Information, requires notice to Iowa One Call (1-800-292-8989) not less than 48 hours before excavation, excluding weekends and legal holidays.
- The location of existing underground utilities and rock elevations are shown in an approximate way only and have not been independently verified by the OWNER or its representative. The CONTRACTOR shall determine the exact location of all existing utilities and rock elevations before commencing work, and agrees to be fully responsible for any and all damages which might be occasioned by the CONTRACTOR'S failure to locate and preserve any and all underground utilities and rock elevations.
- The CONTRACTOR shall visit the site and inspect the project area and become thoroughly familiar with the actual job conditions prior to bidding and the start of any work. Failure to visit the site shall not relieve the CONTRACTOR from performing the work in accordance with these drawings.
- The CONTRACTOR shall verify at the site, all dimensions and conditions shown on the drawings, and shall notify the ENGINEER of any discrepancies, omissions, and/or conflict prior to proceeding with the work.
- The CONTRACTOR shall not scale drawings. Dimensions shall govern. Large scale drawings shall govern over small scale drawings. Notes and details on the drawings shall apply to all similar conditions whether they are repeated or not.
- The CONTRACTOR shall be responsible for any damage to existing facilities outside the construction limits resulting from negligence.
- CONTRACTOR shall protect existing facilities, buildings, and other appurtenances not to be removed from the site during the construction activities.
- CONTRACTOR shall confine his work to the construction limits and easements. If the CONTRACTOR obtains additional easement for the storage of equipment and materials, copies of the agreements with the property Owners shall be provided to the OWNER.
- CONTRACTOR shall submit a detailed construction schedule and staging plan a minimum of two (2) days prior to the preconstruction meeting.
- CONTRACTOR shall be responsible to maintain access to individual properties during construction whenever practical. CONTRACTOR shall notify residents of access restrictions minimum of 24 hours prior to removal of existing access.
- CONTRACTOR shall submit for acceptance work plans and schedules for accomplishment of temporary and permanent erosion control prior to the start of construction.
- CONTRACTOR shall coordinate temporary disruption of utility services with the City of New Hampton, affected utility companies and/or affected property owners when relocating existing facilities, connecting to existing facilities and placing new services.



ILLINOIS
IOWA
WISCONSIN

OWNER/DEVELOPER:
NEW HAMPTON CSD
710 WEST MAIN STREET
NEW HAMPTON, IA 50659

PROJECT AND LOCATION:
TRACK IMPROVEMENTS
NEW HAMPTON CSD, IOWA

DRAWN BY: JCB
APPROVED BY: JSB
DATE: DEC 2021
SCALE: AS NOTED

| REVISIONS | | |
|-----------|-------------|------|
| REV. NO. | DESCRIPTION | DATE |
| | | |
| | | |
| | | |

DRAWING:
GENERAL NOTES & ESTIMATED QUANTITIES

SET TYPE: BID SET
G:\CSD\21\21-1107 NH Track\21-1107 Design.dwg, C:01 GN-QUANT

JOB NUMBER:
21-1107

SHEET NUMBER:
C.01

DIVISION 1 – GENERAL PROVISIONS AND COVENANTS

SECTION 1010

1.03 – DEFINITIONS AND TERMS

JURISDICTION: The Jurisdiction is the New Hampton Community School District. Any reference to either shall be considered one in the same.

SECTION 1020

1.14 – OPENING OF PROPOSALS

Only bid totals will be made publicly available at and immediately after the bid opening. An itemized bid tabulation will be made publicly available for interested parties after the project has been awarded by the Owner.

SECTION 1030

1.02 – RELEASE OF BID SECURITY

A. The Jurisdiction shall retain the bid security of the lowest three bidders. The bid securities of the three lowest bidders will be released after the Jurisdiction's approval of the contract executed by the lowest responsive, responsible bidder.

SECTION 1040

1.05 – PLANS

SUDAS Standard Specifications apply. In addition to section 1040-1.05 the following apply.

- A. Contractor's bids shall be based on the final Plans and any addendum received.
- B. CAD Files or electronic surface information will be made available as an electronic file to the Contractor following award of the project. Since revisions or additions to electronic files may occur at any time, the Contractor agrees to indemnify, and hold harmless the Jurisdiction and Engineer, its officers, agents and employees from and against any and all claims, suits, losses, damages or costs, including reasonable attorney's fees, arising from the use of any electronic files received.

1.06 – INCREASE OR DECREASE OF WORK

B. Quantity change, regardless of the percentage increase or decrease of the total bid, shall not affect the unit bid price of that item.

1.14 – MUNICIPAL TERMINATION FOR CONVENIENCE CLAUSE

The Jurisdiction, by written notice, may terminate this contract, in whole or in part, when it is in the Jurisdiction's interest. If this contract is terminated, the rights, duties, and obligations of the parties, including compensation to the Contractor, shall be as agreed as follows: a reasonable proration compensating contractor for work performed as determined by the Jurisdiction's engineer following the notice and procedure outlined herein: After receipt of a Notice of Termination, and except as otherwise directed by the Jurisdiction, the Contractor shall immediately proceed with the following obligations, regardless of any delay in determining or adjusting any amounts due under this clause:

- A. Stop work as specified in the notice.
- B. Place no further subcontracts or orders (referred to as subcontracts in this clause) for materials, services, or facilities, except as necessary to complete the continued portion of the contract.
- C. Terminate all subcontracts to the extent they relate to the work terminated.
- D. Assign to the Jurisdiction, all right, title, and interest of the Contractor under the subcontracts terminated, in which case the Government shall have the right to settle or to pay any termination settlement proposal arising out of those terminations.
- E. With approval or ratification to the extent required by the Jurisdiction, settle all outstanding liabilities and termination settlement proposals arising from the termination of subcontracts; the approval or ratification will be final for purposes of this clause.
- F. As directed by the Jurisdiction, transfer title and deliver to the Government—
 - 1. The fabricated or unfabricated parts, work in process, completed work, supplies, and other material produced or acquired for the work terminated;
 - 2. The completed or partially completed plans, drawings, information, and other property that, if the contract had been completed, would be required to be furnished to the Government.
- G. Complete performance of the work not terminated.
- H. Take any action that may be necessary, or that the Jurisdiction may direct, for the protection and preservation of the property related to this contract that is in the possession of the Contractor and in which the Jurisdiction has or may acquire an interest.
 - 1. Use its best efforts to sell, as directed or authorized by the Jurisdiction, any property of the types referred to in this termination for convenience clause; provided, however, that the Contractor
 - 1. is not required to extend credit to any purchaser
 - 2. may acquire the property under the conditions prescribed by, and at prices approved by, the Jurisdiction. The proceeds of any transfer or disposition will be applied to reduce any payments to be made by the Government under this contract, credited to the price or cost of the work, or paid in any other manner directed by the Jurisdiction.
- J. The Contractor shall submit complete termination inventory schedules no later than 120 days from the effective date of termination, unless extended in writing by the Jurisdiction upon written request of the Contractor within this 120-day period.
- K. After termination, the Contractor shall submit a final termination settlement proposal to the Jurisdiction. The Contractor shall submit the proposal promptly, but no later than 1 year from the effective date of termination, unless extended in writing by the Jurisdiction upon written request of the Contractor within this 1-year period. However, if the Jurisdiction determines that the facts justify it, a termination settlement proposal may be received and acted on after 1 year or any extension. If the Contractor fails to submit the proposal within the time allowed, the Jurisdiction Officer may determine, on the basis of information available, the amount, if any, due the Contractor because of the termination and shall pay the amount determined.
- L. After receipt of the final termination proposal, the proposal will be reviewed by the Jurisdiction's engineer, and a final determination recommendation by the engineer shall be final and agreed to settlement.
- M. If the termination is partial, the Contractor may file a proposal with the Jurisdiction for an equitable adjustment of the price(s) of the continued portion of the contract. The Jurisdiction shall make any equitable adjustment agreed upon. Any proposal by the Contractor for an equitable adjustment under this clause shall be requested within 90 days from the effective date of termination unless extended in writing by the Jurisdiction.

SECTION 1050

1.03 – COOPERATION BY THE CONTRACTOR – SPECIAL ATTENTION TO THIS SECTION IS REQUESTED OF ALL BIDDING CONTRACTORS

1.10 – LINE AND GRADE STAKES

A. The Contractor is required to provide minimum of two business days' notice to the Engineer when requesting stakes.

1.12 – SALVAGE

A. Contractor shall salvage all fence, gates, and iron castings and lids for the Jurisdiction. All other waste materials are the responsibility of the Contractor to properly dispose of.

SECTION 1060

1.04 – STORAGE OF MATERIALS

The high school parking lot may be used as a staging area for the project construction. Contractor shall return area as well as travel path from to the track to a condition similar to that prior to construction. This includes, but is not limited to: smoothing any ruts, removing all trash and debris, and reseeding all grass areas. No payment will be made for work or materials required to return staging area to preconstruction condition.

SECTION 1070

2.02 – CONVENIENCE AND SAFETY – SPECIAL ATTENTION TO THIS SECTION IS REQUESTED OF ALL BIDDING CONTRACTORS

C. Work shall be completed in a manner that will cause the least inconvenience and annoyance to the public and property owners abutting the work area and shall provide access to the abutting property to the greatest extent practicable. Contractor shall notify property owners a minimum of 48 hours in advance when access will be restricted to their properties.

2.05 – EXPLOSIVES

A. Use: Due to the risk of collateral damage, blasting will not be allowed for this project as part of rock removal activities.

2.13 – BORROW AND WASTE SITES

A. Contractor shall secure and operate, at its own expense, sites for disposal of class 12 rock excavation, structures, surfacing materials, and rubbish and debris.

3.01 – PERFORMANCE, PAYMENT, AND MAINTENANCE BOND

B. Products and Completed Operations shall be maintained for the duration of the work; and shall be further maintained for a minimum period of two (2) years after final acceptance and payment.

3.02 – INSURANCE REQUIREMENTS

C. 2. j. Not Applicable.

6. Additional Insured Endorsements –

c. See Section 1070, Part 3.06 for information on all required endorsements which include naming of the Jurisdiction as an additional insured, cancellation and material change endorsement, and Nonwaiver of Governmental Immunity.

3.05 – PROPERTY INSURANCE – NOT APPLICABLE

SECTION 1080

1.01 – SUBLETTING OR ASSIGNMENT OF CONTRACT

A. The percentage of work to be completed by the contractor is waived on this project due to the types of work required.

1.02 – CONTRACT TIME

A. 3. Contractor shall fully complete the project by August 12, 2022.

1.03 – WORK PROGRESS AND SCHEDULE

D. Schedule of work

- 1. Initial work shall be grading of inside track perimeter for positive drainage to intakes where specified. This will allow maximum time for sod to get established.
- 2. Wait period required between asphalt placement and all-weather surfacing placement – follow surfacing provider's requirement.

SECTION 1090

1.05 – PROGRESS PAYMENTS

D. Partial pay estimates shall be submitted by the Contractor to the Engineer by the Thursday following the last Saturday of the month for work completed through the last Saturday of the month.

DIVISION 2 – EARTHWORK

SECTION 2010

1.03 – SUBMITTALS

A. The Jurisdictional Engineer hereby requests that all materials to be incorporated into the work have certifications furnished which show that the materials comply with Specifications prior to any construction.

1.08 – MEASUREMENT AND PAYMENT

D. Topsoil will be imported only if on-site topsoil is not of sufficient quality for reuse. Approval of Engineer for import and for material quality required prior to import.

E. 1.a. No additional measurements will be made; payment quantity shall be Plan quantity.

1.c. Estimates of Earthwork for the Project are as follows:

| | | |
|--------------|------------|------------|
| Base Bid: | Cut 75 CY | Fill 50 CY |
| Alternate 2: | Cut 210 CY | Fill 4 CY |
| Alternate 3: | Cut 98 CY | Fill 62 CY |
| Alternate 4: | Cut 10 CY | Fill 44 CY |

Cut material is to be used for fill.

3. e. No additional payment will be made for hauling of salvaged excavated material, as noted in Section 1050, 1.12, as it shall be incidental to Class 10 Excavation.

3. f. Excavation shall include subgrade preparation, when applicable, at no additional cost.

G. 2. No separate payment shall be made for Subgrade Preparation as it shall be incidental to the Excavation.

I. 1. 1' outside of asphalt for new high jump pad and 2' outside of asphalt for new track runoff.

3. Modified Subbase, IDOT Gradation #14, shall be used.

999-C. Fill, Provide and Place

a. Measurement: Measurement will be in cubic yards of fill material provided, placed, and compacted.

b. Payment: Payment will be the unit price per cubic yard.

c. Includes: This work includes, but is not limited to, furnishing, placing, and compacting fill material. Material shall be suitable for use below track runoff.

3.06 – SUBGRADE PREPARATION

A. A disk of the size indicated in Section 2010, Part 3.04, C. 4 shall be used to turn and mix all soils in cut or fill sections. Type A Compaction required for all subgrade preparation.

DIVISION 3 – TRENCH AND BACKFILL

SECTION 3010

1.03 – SUBMITTALS

B. Results of Standard Proctor and In-Place Density tests will not be required.

2.02 – BEDDING MATERIAL

A. 1. Use clean stone for pipe envelope in wet trench or as directed by the Engineer. IDOT gradation no. 11, 12 or 31 shall be used for pipe envelope in dry trench unless otherwise directed by the Engineer. Contractor shall note on weigh tickets use of material and shall stockpile separate from Street Subbase.

3.05 – PIPE BEDDING AND BACKFILL

Pipe Embedment Requirements for Flexible Gravity Pipe:

HDPE Single & Dual Wall, PVC Gravity Pipe (SDR 23.5, 26, 35): Class F-3

DIVISION 4 – SEWERS AND DRAINS

SECTION 4010

1.03 – SUBMITTALS

A. The Jurisdictional Engineer hereby requests that all materials to be incorporated into the work have certifications furnished which show that the materials comply with Specifications prior to any construction.

3.04 – PIPE JOINTING

F. 1. Connection between existing and new HDPE drain lines shall be made with a manufactured coupler. Couplers shall be incidental to installation of the sewer pipe.

SECTION 4020

1.03 – SUBMITTALS

A. The Jurisdictional Engineer hereby requests that all materials to be incorporated into the work have certifications furnished which show that the materials comply with Specifications prior to any construction.

2.01 – STORM SEWERS

A. 2. Storm sewer line shall be dual wall HDPE.

DIVISION 6 – STRUCTURES FOR SANITARY AND STORM

SECTION 6010

1.03 – SUBMITTALS

The Jurisdictional Engineer hereby requests that all materials to be incorporated into the work have certifications furnished which show that the materials comply with Specifications prior to any construction.

1.08 – MEASUREMENT AND PAYMENT

B. 3. Includes cutting existing storm drain line at new intake location and connection of the new intake to the existing drain line. This includes any couplers or pipe sections that are necessary.

H. 3. Includes placement of storm drain line section where intake was removed. Manufactured couplers are included.

DIVISION 7 – STREETS & RELATED WORK

SECTION 7010

1.03 – SUBMITTALS

All submittals listed in the standard specifications shall be provided.

D. Certified plant inspection by the Contractor is NOT required on this project.

Standard Iowa DOT plant report forms shall be completed by the Contractor/Supplier and submitted to the Jurisdictional Engineer weekly. Iowa DOT Standard form 830212 for ready mix concrete (load tickets) shall be completed for each load for collection at the grade.

1.08 – MEASUREMENT AND PAYMENT

I. 1. Contractor will not be required to perform Plastic Concrete testing. Air, Slump, Cylinders, and/or Beams to be completed by the Jurisdictional Engineer. Contractor shall provide materials for these tests.

2. No additional payment will be made for maturity testing, if performed.

2.01 – MATERIALS

D. 1. Class 3 durability ONLY for this project.

2.02 – MIX DESIGN

A. Class C, 4,500 psi at 28 days compressive strength required.

SECTION 7020

1.03 – SUBMITTALS

All submittals listed in the standard specifications shall be provided.

1.08 – MEASUREMENT AND PAYMENT

999-A. Outer Perimeter HMA Surface Preparation

a. Measurement: Measurement will be in square yards of area prepared for HMA surfacing (Alternate 5)

b. Payment: Payment will be the unit price per square yard.

c. Includes: This work includes, but is not limited to, removal of chain link fence, where required; grading of existing crushed stone between outer track HMA edge and fence to allow for 3" thick HMA mat (or adjacent PCC on visitor side bleacher area); disposal of excess material.

2.01 – HMA MATERIALS

1. Base and Surface: ST, 3/8", PG 58-28S

Track Repair: 1.5" thick surface layer

Infill Areas: 3" thick surface layer

New High Jump and Track Runout: 2.5" thick base layer with 1.5" thick surface layer

SECTION 7030

1.08 – MEASUREMENT AND PAYMENT

I. Contractor will not be required to perform Plastic Concrete testing. Air, Slump, Cylinders, and/or Beams to be completed by the Jurisdictional Engineer. Contractor shall provide materials for these tests with no additional payment.

2.01 – PORTLAND CEMENT CONCRETE MIX

A. Class C, 4,500 psi at 28 days compressive strength required.

3.04 – PCC RECREATIONAL TRAILS, SIDEWALKS, AND DRIVEWAYS

F. 2. b. 3. All transverse contraction joints shall be sawed. Joints may be sawed within 12 hours of placement with a 1/8 inch blade saw to a depth of 1/3 the pavement thickness. Use a straightedge if joints are sawed with a hand-held saw.

3. b. 2. All longitudinal contraction joints shall be sawed. Joints may be sawed with a 1/8 inch blade to a depth of 1/3 the pavement thickness. Use a straightedge if joints are sawed with a hand-held saw.

5. b. Sealing of expansion and isolation joints is required. Trim preformed joint material to a depth of 1/8 inch below the concrete surface. Ensure the joint is clean and dry. Install joint sealant per manufacturer's recommendations.

SECTION 7040

1.08 – MEASUREMENT AND PAYMENT

999-A Crack Repair

A. Measurement: Measurement will be in lineal feet measured along the cracks.

B. Payment: Payment will be made at the unit price per linear foot of crack repair.

C. Includes: Unit price includes, but is not limited to, cleaning cracks, cleaning area for membrane, provide and place crack sealant (polyurethane sealant), provide and place membrane (Mirafi MTK, 12" width). Bid quantity has been increased from known crack quantity as an estimate for additional cracks that may be encountered. Payment will be made per actual length repaired.

DIVISION 9 – SITE WORK & LANDSCAPING

SECTION 9010

1.02 – DESCRIPTION OF WORK

Completed installation shall include preparation of the seedbed, furnishing and installing seed, fertilizer and mulch, maintenance, and guarantee for completed seeded areas.

1.07 – SPECIAL REQUIREMENTS

A. Warranty is required and is incidental to the seeding bid item. No separate bid item is allowed. Warranty is for only permanent seeding within the dates for each variety specified per Section 9010, 2.02.

B. Warranty period is two full years from acceptance.

1.08 – MEASUREMENT AND PAYMENT

A. 1. Seeding for a completed installation shall be measured in acres, of accepted seeding within the contract or easement limits. Seeding item includes supplying and applying proper seed, fertilizer, and mulch. Different payment for method of application will not be allowed. At the Contractor's option, Hydraulic or Pneumatic Seeding may be used, but will not be paid separately.

6. Fertilizing shall be incidental to the seeding bid item and will not be paid separately.

7. Mulching shall be incidental to the seeding bid item and will not be paid separately.

E. Warranty for seeding, fertilizing, and mulching is required but is incidental to the seeding bid item. Warranty period shall be for two full years from the date of acceptance. No separate bid item is allowed.

2.02 – SEED MIXTURES

All seeding shall be on an approved Athletic Field mix.

3.08 – RE-SEEDING

A. When all work related to seeding on an area has been completed but is washed out or damaged prior to final acceptance of the seeding area, the area shall be reseeded, refertilized, and remulched without additional compensation.

3.10 – ACCEPTANCE AND WARRANTY

B. 1. Required but incidental to the seeding bid item and shall not be paid separately.

2. The warranty period is twenty-four months beginning on the date of acceptance.

SECTION 9020

1.08 – MEASUREMENT AND PAYMENT

999-A SOD, CUT, SALVAGE, INSTALL

A. Measurement: Measurement will be per square (100 sf) of sod cut and replaced.

B. Payment: Payment will be made at the unit price per square of sod.

C. Includes: Unit price includes, but is not to, cutting sod, temporary storage, replacement of sod, fertilizing, watering, cleanup, and replacement of any non-growing sod during the maintenance period. Owner has water supply for contractors use at home side bleachers. Contractor may choose to provide new sod, at no additional payment.

SECTION 9060

2.01 – PRODUCTS

B. Provide zinc-coated fabric and posts

DIVISION 11 – MISCELLANEOUS

SECTION 11,010

2.02 – LATH

Lath for underground construction shall be approximately 48 inches long. Grading, earthwork, and paving hubs may be approximately 24 inches long to 48 inches long.

3.01 – EQUIPMENT

C. Do not use GPS equipment for staking the vertical elements of storm sewer structures or sanitary sewer structures.

3.02 – PROJECT CONTROL

D. Mark all construction easements, permanent easements, and rights-of-way.

3.03 – CONSTRUCTION STAKING

A. 1e. Blue tops will not be provided by the owner when the jurisdiction is furnishing the construction staking.

FEHR GRAHAM
ENGINEERING & ENVIRONMENTAL
ILLINOIS
IOWA
WISCONSIN

OWNER/DEVELOPER:
NEW HAMPTON CSD
710 WEST MAIN STREET
NEW HAMPTON, IA 50659

PROJECT AND LOCATION:
TRACK IMPROVEMENTS
NEW HAMPTON CSD, IOWA

DRAWN BY: JCB
APPROVED BY: JSB
DATE: DEC 2021
SCALE: AS NOTED

| REVISIONS | | |
|-----------|-------------|------|
| REV. NO. | DESCRIPTION | DATE |
| | | |
| | | |
| | | |
| | | |

DRAWING:
SUPPLEMENTAL SPECIFICATIONS
SET TYPE: BID SET
G:\CSD\11-1107 NH Trak\11-1107 Design.dwg, C02-SUPP SPEC

</

DIVISION 0000 - ALL-WEATHER ATHLETIC SURFACING SYSTEM

PART 1 - GENERAL

1.08 - MEASUREMENT AND PAYMENT

999-A REMOVE EXISTING ALL-WEATHER ATHLETIC SURFACING

A. Measurement: Lump sum item; no measurement will be made.

B. Payment: Payment will be at the lump sum price for surfacing removal.

C. Includes: Lump sum price includes, but is not to, removal of the existing surfacing from the asphalt base for base bid construction (track and long jump) and Alternate 1 (existing high jump) separately, cleaning of asphalt base for areas of project that will not receive a new asphalt surface course to a sufficient level for application of new athletic surfacing, and proper disposal of surfacing.

999-B INSTALL ALL-WEATHER ATHLETIC SURFACING

A. Measurement: Lump sum item; no measurement will be made.

B. Payment: Payment will be at the lump sum price for new surfacing included in base bid.

C. Includes: Lump sum price includes, but is not limited to, provide and place primer, base mat, polyurethane binding agent, marking paint and all markings per the National Federation of State High School Associations (NFSHSA). Refer to Special Provisions listed below.

999-C INSTALL ALL-WEATHER ATHLETIC SURFACING

A. Measurement: Lump sum item; no measurement will be made.

B. Payment: Payment will be at the lump sum price for new surfacing included in Alternate 1 or Alternate 2 (high jump pad).

C. Includes: Lump sum price includes, but is not limited to, provide and place primer, base mat, and polyurethane binding agent. Refer to Special Provisions listed below.

999-D RELOCATE PLAY CLOCK

A. Measurement: Lump sum item; no measurement will be made.

B. Payment: Payment will be at the lump sum price for relocating the play clock.

C. Includes: Lump sum price includes, but is not limited to, removal of existing play clock in good condition, careful removal of PCC base, disconnection of power and control cables, relocation of play clock to new location, new PCC base, reconnection of power and control cables. Coordinate with owner for full testing of play clock upon relocation.

999-E INSTALL ALL-WEATHER ATHLETIC SURFACING-RUNOUT

A. Measurement: Lump sum item; no measurement will be made.

B. Payment: Payment will be at the lump sum price for new surfacing included in alternate 4.

C. Includes: Lump sum price includes, but is not limited to, provide and place primer, base mat, polyurethane binding agent, marking paint and all markings per the National Federation of State High School Associations (NFSHSA). Refer to Special Provisions listed below.

SPECIAL PROVISIONS - ALL-WEATHER ATHLETIC SURFACING SYSTEM

PART 1 GENERAL

1.1 Description of Product

Paved in place polyurethane bound base mat comprised of SBR or EPDM 1mm-4mm rubber granules, bound by 100% MDI one component urethane binder. Applied in one layer with special paving equipment with heated screed.

1.2 Scope of Work

- Surfacing contractor shall furnish materials, labor equipment, and supervision to install resilient surfacing as per manufacturers recommended guidelines, and drawings & specifications as set forth by design professional specified herein.
- Lane lines and event markings shall be applied by qualified painter experienced in layout measurement and painting 400-meter tracks.

1.3 Supervision

- Surfacing contractors shall have a qualified supervisor on the job site at all times during application of surface and to coordinate with other contractors to provide proper installation as per specifications herein.
- Surfacing supervisor must have a minimum of fifteen similar installations to be qualified.

Part 2 CONFORMANCE STANDARDS

2.1 Applicable Local and State Codes

Contractor shall abide by any local and state codes/laws and obtain required permits.

2.2 Governing Bodies

Standards and guidelines provided by National Federation of State High School Association (NFSHSA) shall be followed as specified herein. American Sports Builders Association (ASBA) guidelines shall be followed regarding design profile and grade tolerances. All testing requirements regarding the project shall be in accordance with current testing guidelines as published by the American Society of Testing Materials (ASTM).

2.3 Physical Properties & Performance

COLOR is Black.

THICKNESS 13mm average.

HARDNESS (ASTM D-2240) Cannot be measured because of porous structure.

ELONGATION (ASTM D-412) 83%

TENSILE STRENGTH (ASTM D-412) 0.7N/mm2 @ 70°F

COMPRESSION SET (ASTM D-395) 90%-95% @ 70°F over a 24 hour period.

ABRASION (ASTM D-501) 0.25 grams loss after 1000 cycles.

CHALKING (ASTM D-822) No change after 1000 hours in weather meter.

COEFFICIENT OF FRICTION (ASTM D-1894) Dry 1.07, Wet 0.73

RESILIENCE (ASTM D-2632) 37%-44%

TEAR RESISTANCE (ASTM D-624) 50-75 P.S.I.

Part 3 QUALITY ASSURANCE

3.1 Contractor Qualifications

Surfacing contractor shall have a minimum of five years' experience in the surfacing business with a minimum of 25 installations of the same product being bid. A minimum of ten of these installations must be four years or older. The surfacing contractor must be a member of the American Sports Builders Association in good standing.

3.2 Submittals (following bid letting)

- Submittals must include the following standard specifications of track product system to be proposed as per specifications herein.
- Affidavit attesting that the surface materials meet or exceed manufacturers printed specifications.
- Manufacturer's certification of materials.
- 4"x 4" samples of surfacing product is being bid.
- Submit a reference list following bid opening of five or more installations complete with owner name, telephone, email, and address or owner and contact person.

Part 4 MATERIALS

4.1 Polyurethane Primer

Polyurethane-based primer specifically formulated to be compatible with the base and track surfacing materials.

4.2 Base Mat Rubber Granules

Recycled SBR crumb rubber--chopped, processed, and graded to 1-3mm in size with not less than 4% retained on a number 50 sieve with no trace of fiber or steel. OPTIONAL-- black EPDM rubber--chopped, processed, and graded to 1-4mm in size.

4.3 Polyurethane Base Mat Binding Agent

Single component MDI based urethane that is compatible with SBR or EPDM rubber granules.

4.4 Line Marking Paint

A polyurethane based paint specifically formulated for painting polyurethane track systems and is compatible with surfacing system proposed. Other paints may be used if they are compatible with surfacing materials.

Part 5 INSTALLATION

5.1 Asphalt Base Criteria

Surface inspection: Prior to the application of the synthetic track surface, the asphaltic or concrete base shall be inspected for conformity to planarity requirements. The surface shall not deviate more than 1/8" in 10 feet from the specified grade when checked with a 10-foot straight edge. The surface should be flooded with water to determine if any "bird baths" or low areas exist. Any areas found not to be in conformance with the above requirements shall be repaired and allowed to cure prior to the application of the synthetic surface with compatible materials.

Curing An asphaltic base shall be allowed to cure a minimum of 21 days or as recommended by the surfacing provider prior to the commencement of the work.

Cleaning The area to be surfaced shall be clean and free of any loose or foreign particles (dirt, oil, etc.) prior to the commencement of work.

5.2 Thickness

The thickness of the resilient layer finish shall be an average depth of 12-13mm.

5.3 Color

The color shall be black.

5.4 Machinery and Equipment

Specially designed equipment shall be used to proportion, mix, and finish the proposed resilient surface. Polyurethane primer shall be applied by an airless sprayer with a minimum of 50 P.S.I. and provide a uniform coverage. The base mat shall be applied by a mechanically operated finisher with a thermostatic controlled heat screed with variable speed control. The mixing unit shall be specifically designed to proportion the amount of polyurethane binder and rubber to maintain quality control. The mixing unit shall be calibrated for each installation.

5.5 Installation of Resilient Track Surfacing

The entire area to be surfaced shall receive an application of polyurethane primer. Allow a minimum of thirty minutes curing time before applying the base mat. Primer applied uniformly at a rate of not less than .2 lbs. per square yard.

Base mat installation Blend black crumb rubber and polyurethane binding agent in suitable mixer for 2-3 minutes. Spread blended materials onto asphalt base by using a mechanical tandem leveler with heated screed bar to obtain both smoothness and compaction. Mat will be laid bay to bay, limiting length of each pass to avoid cold (cured) joints. Ensure a good joint by tack coating traverse joint from previous day's work at beginning of each day's work. Remove small irregularities with a lightweight polyethylene or Teflon roller. Monitor relative humidity conditions and relative curing rates. Restrict all traffic from mat until curing is complete. Polyurethane content of base mat is a minimum of 20% as determined by the overall weight of rubber granules per mix.

Line marking: The measurement and marking of lines and events shall be performed according to the recommendation of the National Federation of Track and Field Standards, NCAA, IAAF, and state roles and/or in accordance with the drawings and specifications of the manufacturer.

5.6 Site Conditions

Installation of base mat shall not take place if, in the opinion of the surfacing supervisor, the temperature, excessive dust, threatening weather and/or other conditions exist that may be unacceptable.

All fencing shall be in place with lockable gates to provide security.

No irrigation of the infield shall be done while installation is in process.

The public shall be notified by the owner that the track area is closed and off limits to the public. Signs shall be posted by the owner that the athletic field and athletic track are closed for repairs/renovations.

Part 6 LANE LINES AND EVENT MARKINGS

Line markings shall be laid out by duly qualified contractor or design professional.

Radius point monuments will be placed by Engineer prior to the start of construction.

All layout and painting shall be in accordance with NFSHSA standards and state regulations.

Line painting contractors shall submit a certification of accuracy attesting to the layout and lines and shall submit a color-coding chart with a certificate of accuracy.



ILLINOIS
IOWA
WISCONSIN

OWNER/DEVELOPER:

NEW HAMPTON CSD
710 WEST MAIN STREET
NEW HAMPTON, IA 50659

PROJECT AND LOCATION:

TRACK IMPROVEMENTS
NEW HAMPTON CSD, IOWA

DRAWN BY: JCB
APPROVED BY: JSB
DATE: DEC 2021
SCALE: AS NOTED

| REVISIONS | | |
|-----------|-------------|------|
| REV. NO. | DESCRIPTION | DATE |
| | | |
| | | |
| | | |
| | | |

DRAWING:

SUPPLEMENTAL SPECIFICATIONS

SET TYPE: BID SET

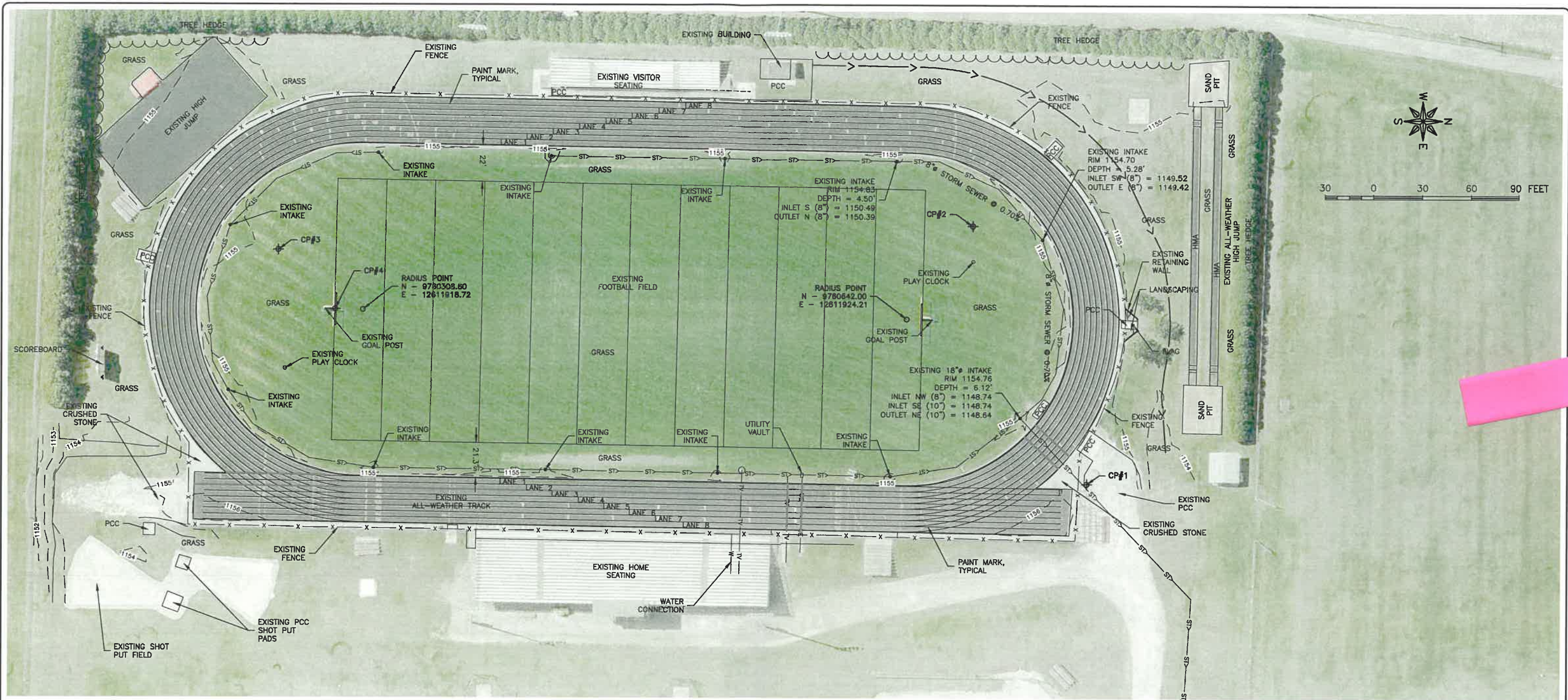
6:\CADD\21\21-1107_MH_Trap\21-1107_Design.dwg, C03-SUPP SPEC

JOB NUMBER:

21-1107

SHEET NUMBER:

C.03



30 0 30 60 90 FEET

CP#

| CONTROL POINT INFORMATION | |
|---------------------------|---|
| CP#1 | = CUT-X (CP100) N-9760752.51, E-12612024.79, ELEV-1155.51' |
| CP#2 | = OPC (ORANGE PLASTIC CAP) (CP101) N-9760682.15, E-12611867.23, ELEV-1155.33' |
| CP#3 | = OPC (ORANGE PLASTIC CAP) (CP102) N-9760256.75, E-12611882.26, ELEV-1155.57' |
| CP#4 | = N4 REBAR W/ ALUMINUM CAP (CP3000) N-9760291.60, E-12611918.47, ELEV-1156.11' |

FEHR GRAHAM
ENGINEERING & ENVIRONMENTAL

ILLINOIS
IOWA
WISCONSIN

OWNER/DEVELOPER:
NEW HAMPTON CSD
710 WEST MAIN STREET
NEW HAMPTON, IA 50659

PROJECT AND LOCATION:
TRACK IMPROVEMENTS
NEW HAMPTON CSD, IOWA

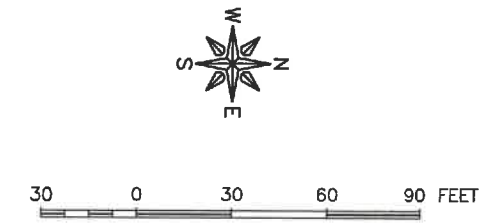
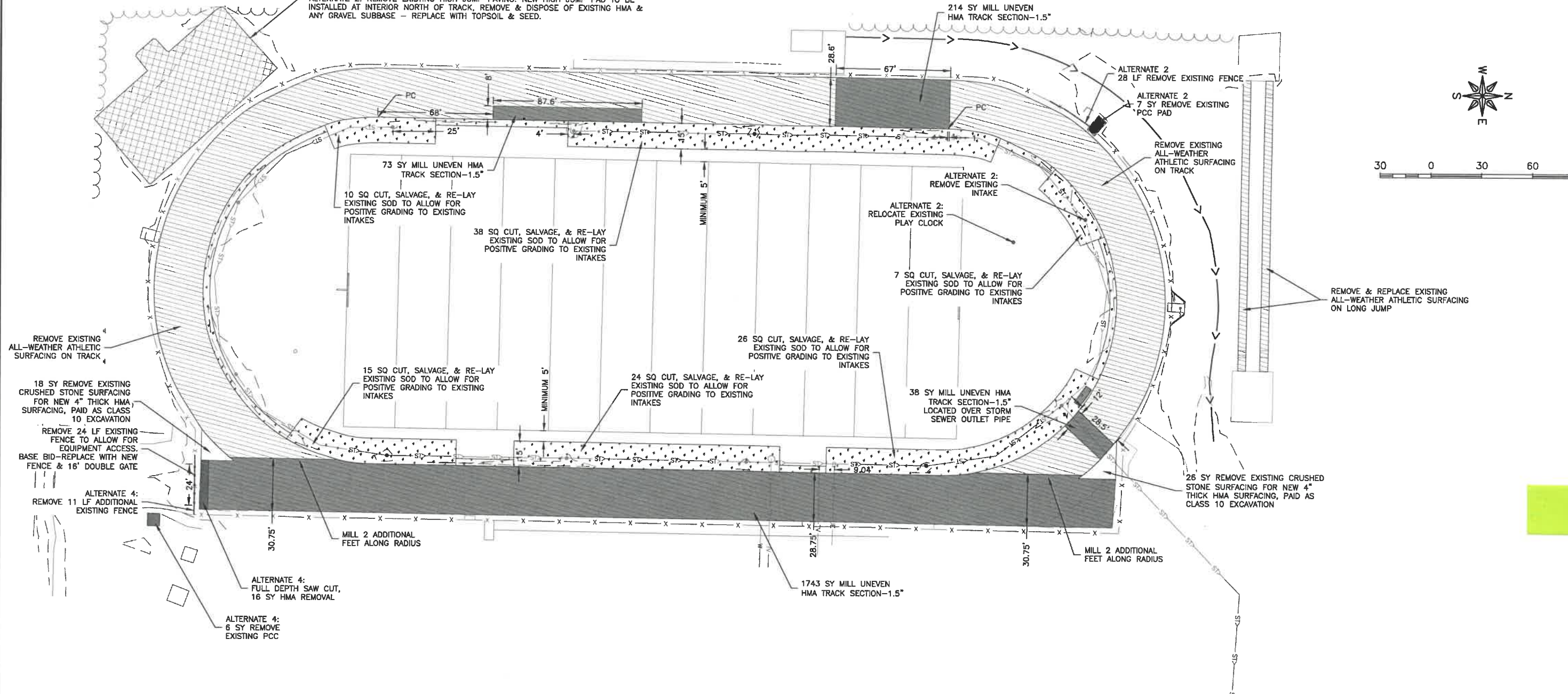
DRAWN BY: JCB
APPROVED BY: JSB
DATE: DEC 2021
SCALE: AS NOTED

| REVISIONS | | |
|-----------|-------------|------|
| REV. NO. | DESCRIPTION | DATE |
| | | |
| | | |
| | | |

DRAWING:
EXISTING CONDITIONS
SET TYPE: BID SET
G:\CADD\21-1107\11-1107\11-1107.dwg, C04 EC

JOB NUMBER:
21-1107
SHEET NUMBER:
C.04

HIGH JUMP
 ALTERNATE 1: REMOVE & REPLACE EXISTING ALL-WEATHER ATHLETIC SURFACING
 ALTERNATE 2: REMOVE EXISTING HIGH JUMP PAVING. NEW HIGH JUMP PAD TO BE INSTALLED AT INTERIOR NORTH OF TRACK, REMOVE & DISPOSE OF EXISTING HMA & ANY GRAVEL SUBBASE - REPLACE WITH TOPSOIL & SEED.



NOTES
 - UPON REMOVAL OF ALL-WEATHER TRACK SURFACING, CLEAN & PREPARE EXISTING HMA THAT WILL REMAIN FOR NEW ALL WEATHER SURFACING.
 - SALVAGE INTAKE GRATES FOR OWNER.

FEHR GRAHAM
 ENGINEERING & ENVIRONMENTAL

ILLINOIS
 IOWA
 WISCONSIN

OWNER/DEVELOPER:
 NEW HAMPTON CSD
 710 WEST MAIN STREET
 NEW HAMPTON, IA 50659

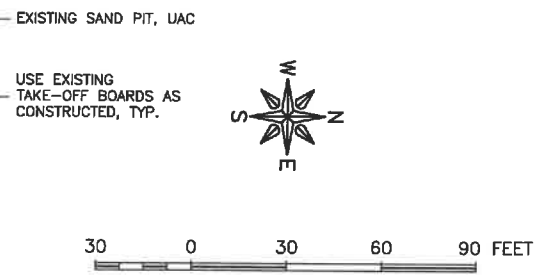
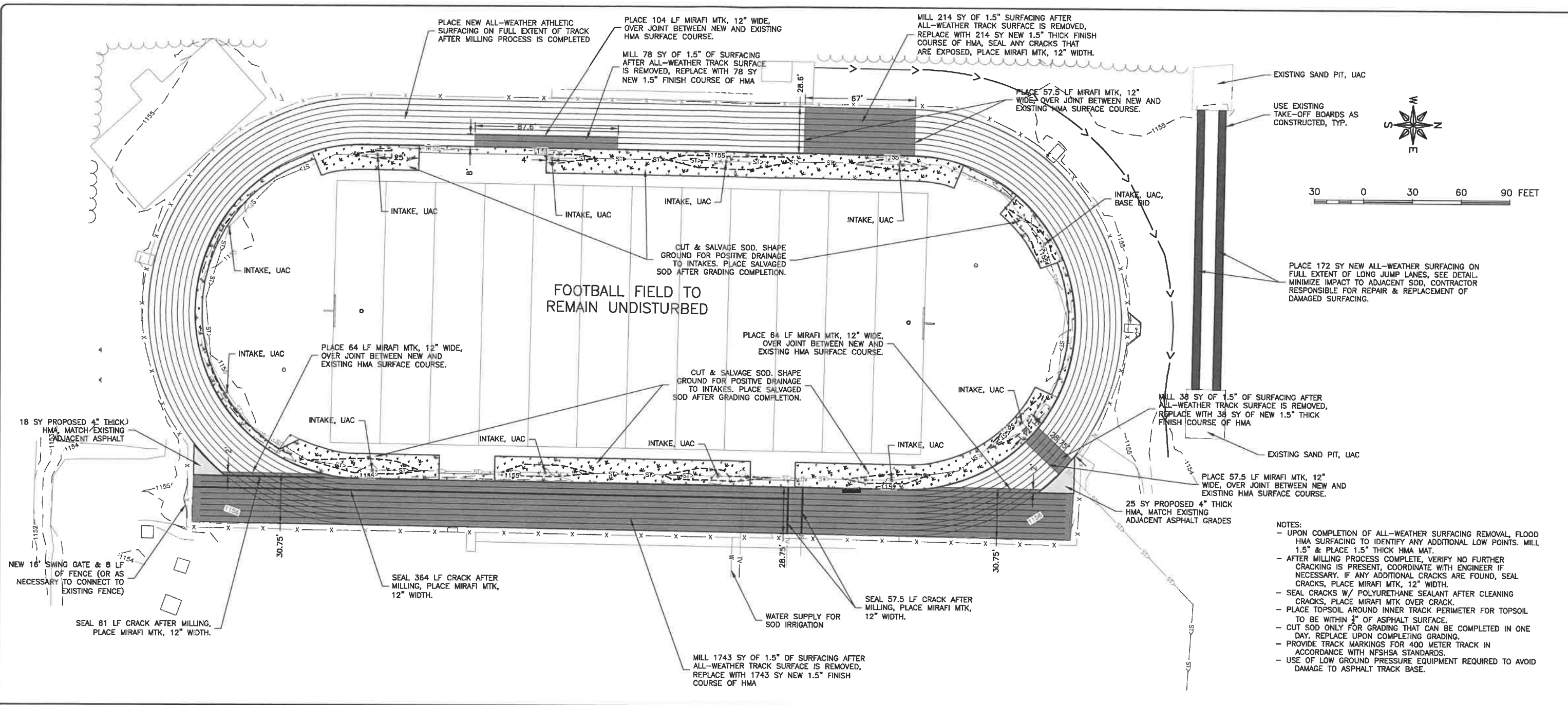
PROJECT AND LOCATION:
 TRACK IMPROVEMENTS
 NEW HAMPTON CSD, IOWA

DRAWN BY: JCB
 APPROVED BY: JSB
 DATE: DEC 2021
 SCALE: AS NOTED

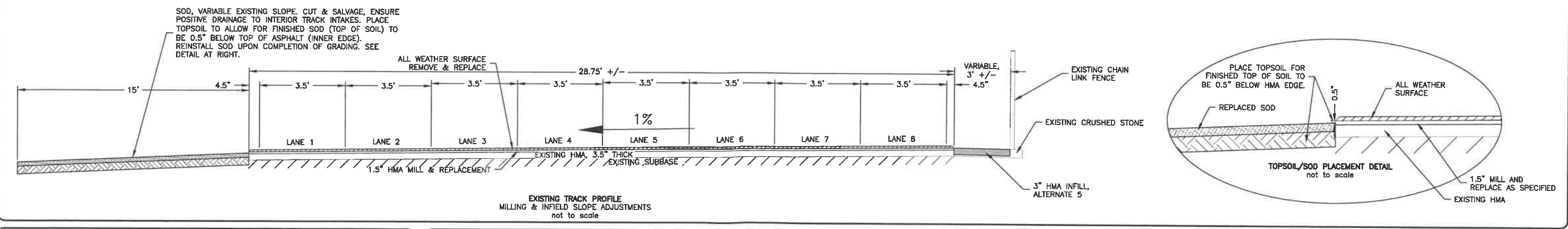
| REVISIONS | | |
|-----------|-------------|------|
| REV. NO. | DESCRIPTION | DATE |
| | | |
| | | |
| | | |

DRAWING:
 REMOVALS
 SET TYPE: BID SET
6:\CD\21-1107\11-1107.dwg, C.05 REM

JOB NUMBER:
 21-1107
 SHEET NUMBER:
 C.05



- NOTES:**
- UPON COMPLETION OF ALL-WEATHER SURFACING REMOVAL, FLOOD HMA SURFACING TO IDENTIFY ANY ADDITIONAL LOW POINTS. MILL 1.5" & PLACE 1.5" THICK HMA MAT.
 - AFTER MILLING PROCESS COMPLETE, VERIFY NO FURTHER CRACKING IS PRESENT, COORDINATE WITH ENGINEER IF NECESSARY. IF ANY ADDITIONAL CRACKS ARE FOUND, SEAL CRACKS, PLACE MIRAFI MTK, 12" WIDTH.
 - SEAL CRACKS W/ POLYURETHANE SEALANT AFTER CLEANING CRACKS, PLACE MIRAFI MTK OVER CRACK.
 - PLACE TOPSOIL AROUND INNER TRACK PERIMETER FOR TOPSOIL TO BE WITHIN 1/4" OF ASPHALT SURFACE.
 - CUT SOD ONLY FOR GRADING THAT CAN BE COMPLETED IN ONE DAY. REPLACE UPON COMPLETING GRADING.
 - PROVIDE TRACK MARKINGS FOR 400 METER TRACK IN ACCORDANCE WITH NFSSA STANDARDS.
 - USE OF LOW GROUND PRESSURE EQUIPMENT REQUIRED TO AVOID DAMAGE TO ASPHALT TRACK BASE.



FEHR GRAHAM
ENGINEERING & ENVIRONMENTAL

ILLINOIS
IOWA
WISCONSIN

OWNER/DEVELOPER:
NEW HAMPTON CSD
710 WEST MAIN STREET
NEW HAMPTON, IA 50659

PROJECT AND LOCATION:
TRACK IMPROVEMENTS
NEW HAMPTON CSD, IOWA

DRAWN BY: JCB
APPROVED BY: JSB
DATE: DEC 2021
SCALE: AS NOTED

| REVISIONS | | |
|-----------|-------------|------|
| REV. NO. | DESCRIPTION | DATE |
| | | |
| | | |
| | | |

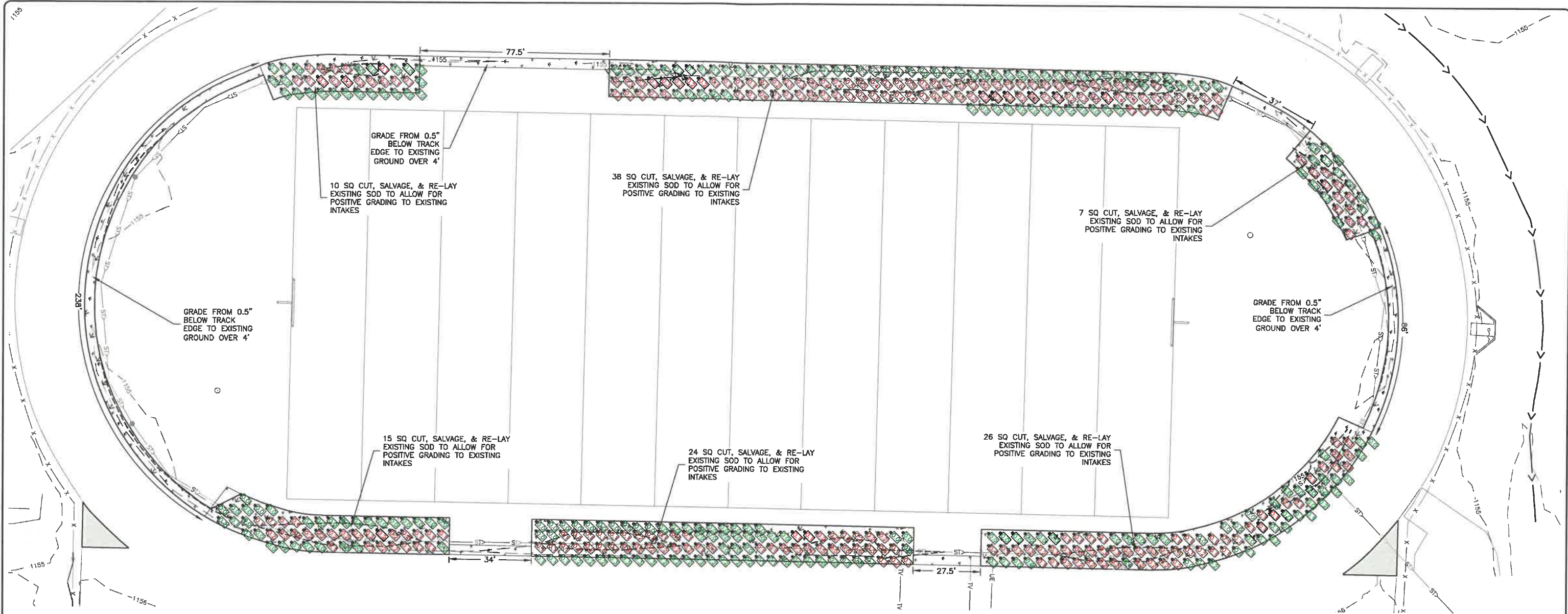
DRAWING:
BASE BID SITE PLAN

SET TYPE: **BID SET**

©/COPYRIGHT 2021 Fehr Graham Engineering, Inc. 0.01 BASE BID

JOB NUMBER:
21-1107

SHEET NUMBER:
D.01



- NOTES**
- FILL 4' WIDTH ON ALL INTERIOR PERIMETER THAT IS NOT BEING REGRADED, REPLACE W/ CUT SOD. SEED ANY AREA NOT COVERED WITH SOD.
 - EXPECTED 50 CY OF FILL AND 75 CY OF CUT GENERATED BY GRADING ACTIVITIES IN BASE BID AS SHOWN.
 - USE OF LOW GROUND PRESSURE EQUIPMENT REQUIRED TO AVOID DAMAGE TO ASPHALT TRACK BASE.

FEHR GRAHAM
ENGINEERING & ENVIRONMENTAL

ILLINOIS
IOWA
WISCONSIN

OWNER/DEVELOPER:
NEW HAMPTON CSD
710 WEST MAIN STREET
NEW HAMPTON, IA 50659

PROJECT AND LOCATION:
TRACK IMPROVEMENTS
NEW HAMPTON CSD, IOWA

DRAWN BY: JCB
APPROVED BY: JSB
DATE: DEC 2021
SCALE: AS NOTED

| REVISIONS | | |
|-----------|-------------|------|
| REV. NO. | DESCRIPTION | DATE |
| | | |
| | | |
| | | |

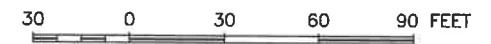
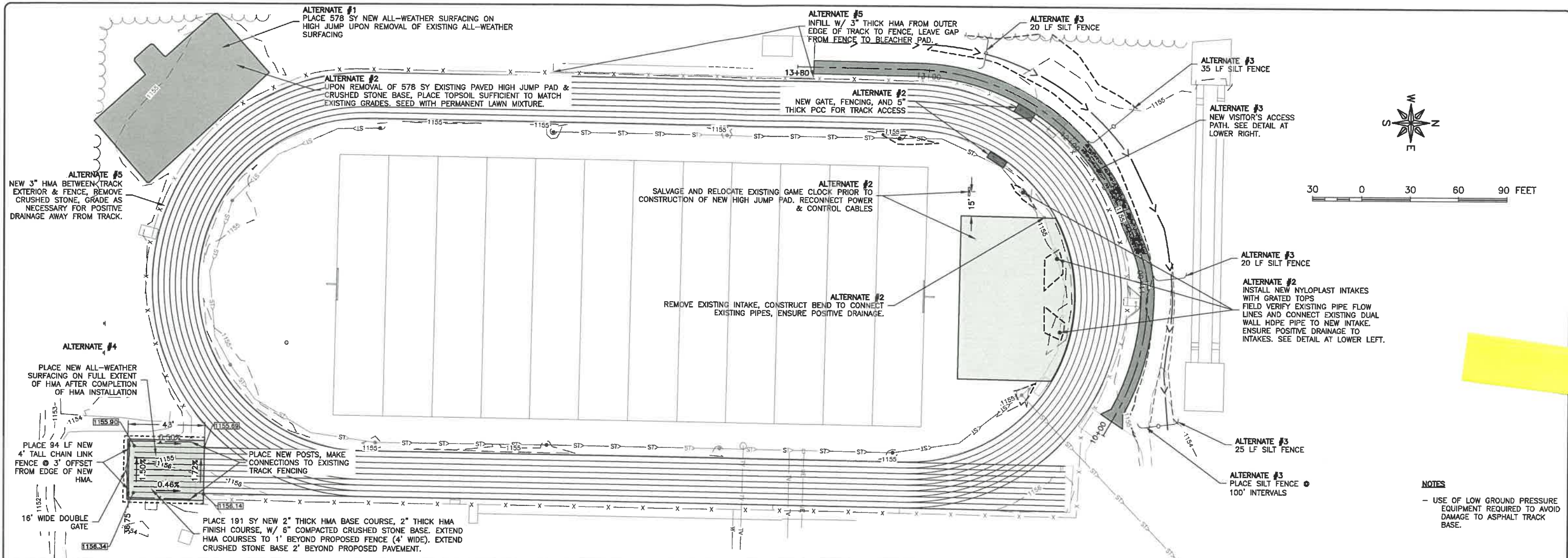
DRAWING:
INTERIOR TRACK CUT-FILL MAP

SET TYPE: BID SET

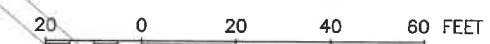
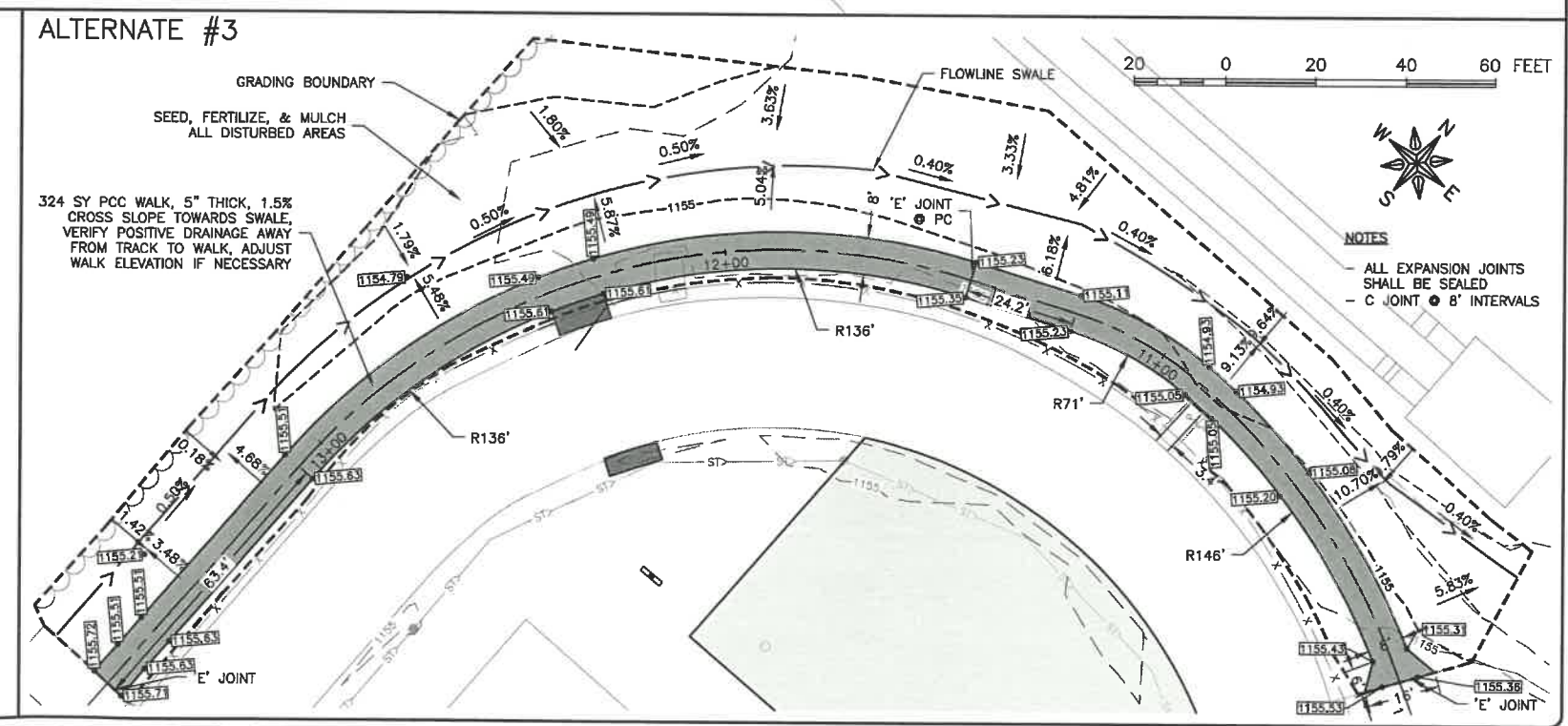
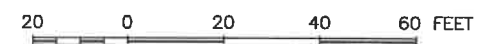
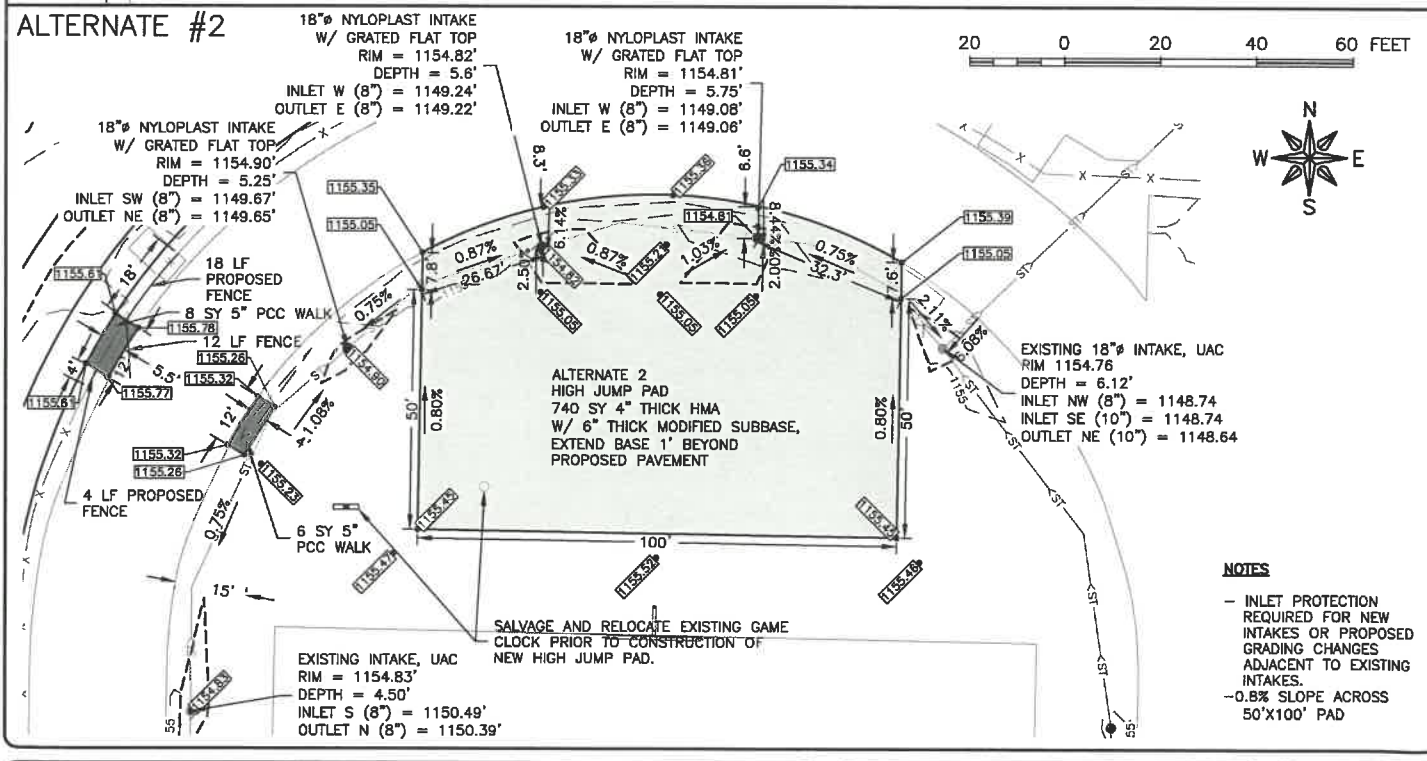
C:\CIP\21-1107 MI Topo\21-1107 Design.dwg, 0.02 GRD

JOB NUMBER:
21-1107

SHEET NUMBER:
D.02



NOTES
- USE OF LOW GROUND PRESSURE EQUIPMENT REQUIRED TO AVOID DAMAGE TO ASPHALT TRACK BASE.



FEHR GRAHAM
ENGINEERING & ENVIRONMENTAL

ILLINOIS
IOWA
WISCONSIN

OWNER/DEVELOPER:
NEW HAMPTON CSD
710 WEST MAIN STREET
NEW HAMPTON, IA 50659

PROJECT AND LOCATION:
TRACK IMPROVEMENTS
NEW HAMPTON CSD, IOWA

DRAWN BY: JCB
APPROVED BY: JSB
DATE: DEC 2021
SCALE: AS NOTED

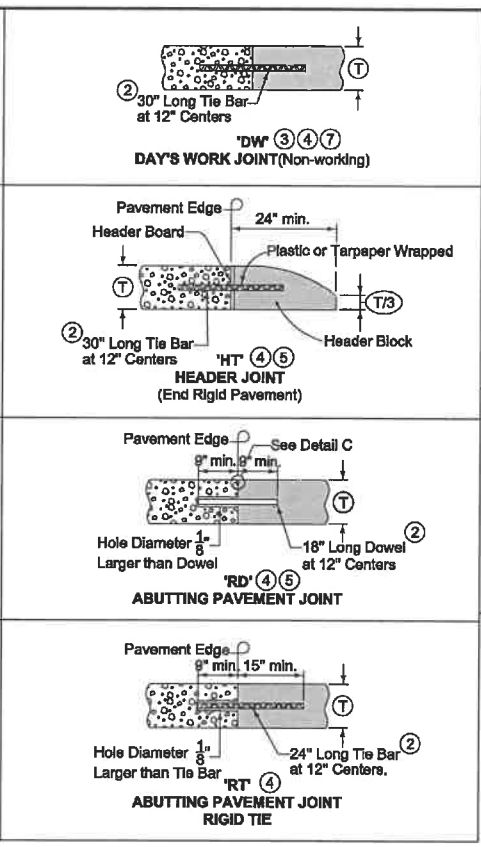
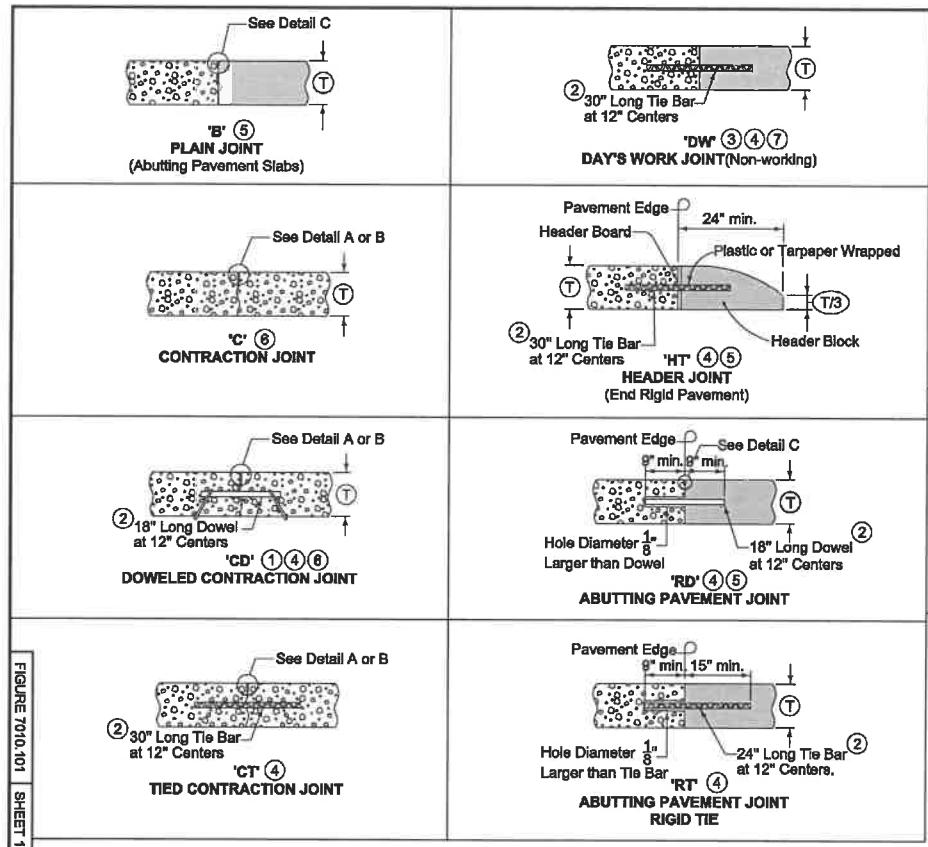
| REVISIONS | | |
|-----------|-------------|------|
| REV. NO. | DESCRIPTION | DATE |
| | | |
| | | |
| | | |

DRAWING:
ALTERNATES SITE PLAN

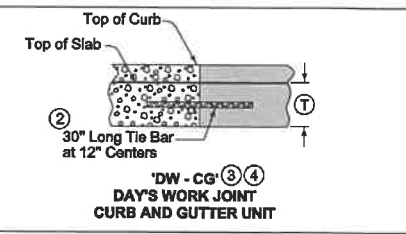
SET TYPE: BID SET

JOB NUMBER:
21-1107

SHEET NUMBER:
D.03



- See dowel assemblies for fabrication details.
- See Bar Size Table for Contraction Joints on Sheet 2.
- Locate 'DW' joint at a mid-panel location between future 'C' or 'CD' joints. Place no closer than 5 feet to a 'C' or 'CD' joint.
- Place bars within the limits shown under dowel assemblies.
- Edge with 1/8 inch tool for length of joint. For HT Joint, remove header block and board when second slab is placed.
- Unless specified otherwise, use 'CD' transverse contraction joints in mainline pavement when T is greater or equal to 8 inches. Use 'C' joints when T is less than 8 inches.
- 'RT' joint may be used in lieu of 'DW' joint at the end of the days work. Remove any pavement damaged due to the drilling at no additional cost to the Contracting Authority.



LEGEND

Existing Pavement

Proposed Pavement

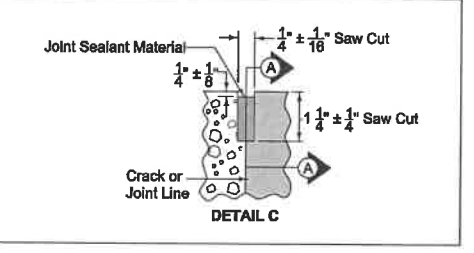
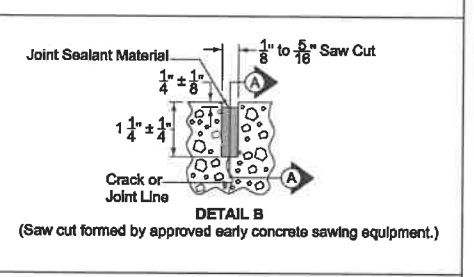
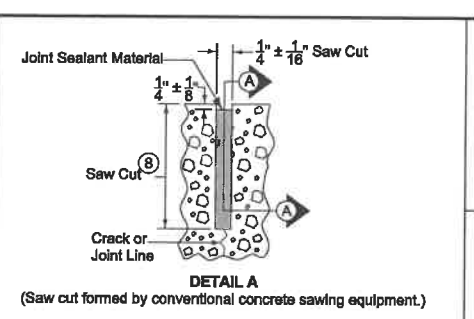
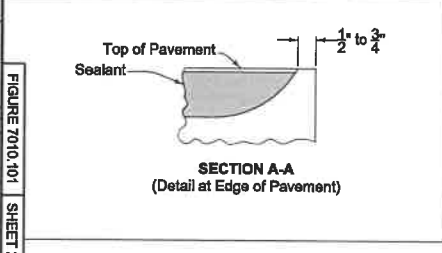
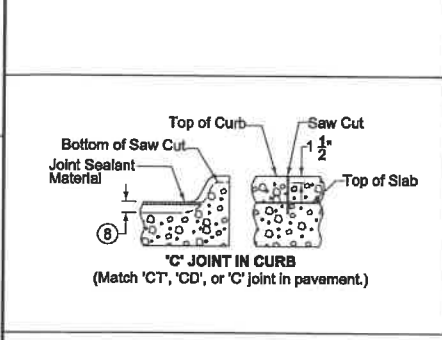
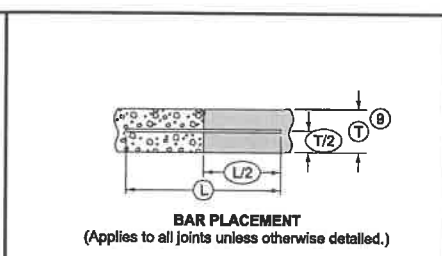
SUDAS KOWADOT

REVISION 10 04-21-20

FIGURE 7010.101 STANDARD ROAD PLAN PV-101 SHEET 1 OF 8

REVISIONS: Modified Dowel Assemblies on Sheets 6 and 7 to eliminate reference to 14 panels.

JOINTS



- Saw 'CD' joint to a depth of $T/3 \pm 1/4"$; saw 'C' joint to a depth of $T/4 \pm 1/4"$.
- When tying into old pavement, T represents the depth of sound PCC.

BAR SIZE TABLE FOR CONTRACTION JOINTS

| T | Solid Dowel Diameter | Tubular Dowel Diameter | Tie Bar Size |
|----------------|----------------------|------------------------|--------------|
| < 8" | 3/4" | 7/8" | #8 |
| ≥ 8" but < 10" | 1 1/4" | 1 3/8" | #10 |
| ≥ 10" | 1 1/2" | 1 5/8" | #11 |

Tubular Dowel Bars will not be allowed for RD joints.

LEGEND

Existing Pavement

Proposed Pavement

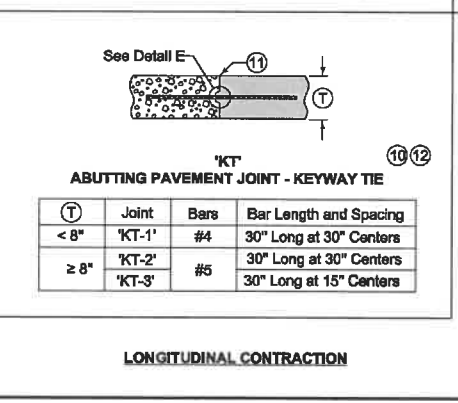
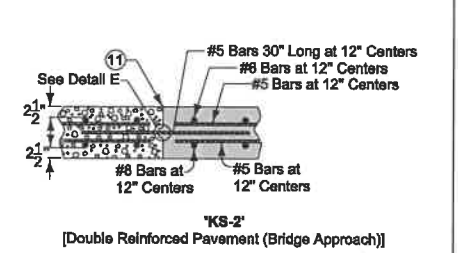
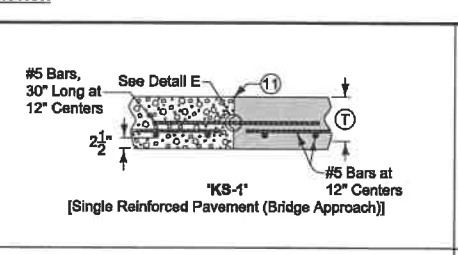
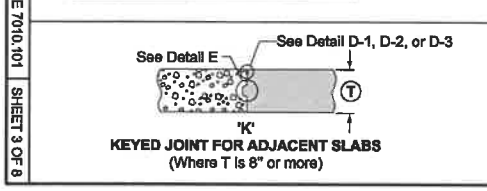
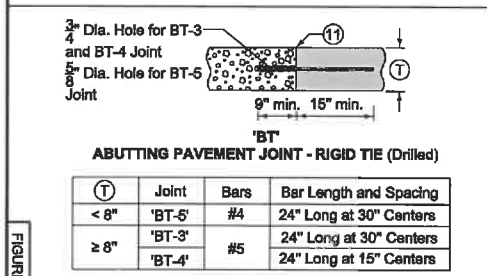
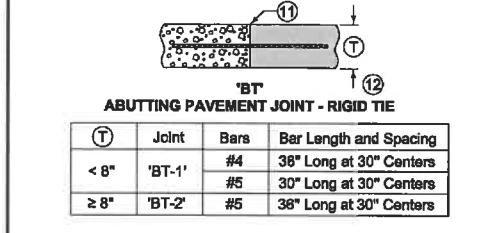
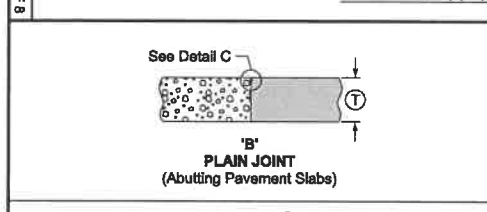
SUDAS KOWADOT

REVISION 10 04-21-20

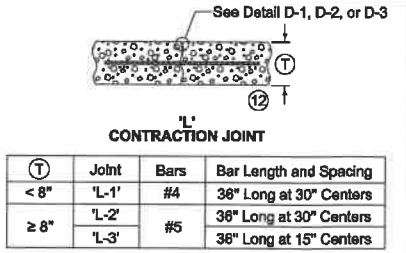
FIGURE 7010.101 STANDARD ROAD PLAN PV-101 SHEET 2 OF 8

REVISIONS: Modified Dowel Assemblies on Sheets 6 and 7 to eliminate reference to 14 panels.

JOINTS



- Bar supports may be necessary for fixed form paving to ensure the bar remains in a horizontal position in the plastic concrete.
- Sawing or sealing of joint not required.
- The following joints are interchangeable, subject to the pouring sequence: 'BT-1', 'L-1', and 'KT-1'; 'KT-2' and 'L-2'; 'KT-3' and 'L-3'.



LEGEND

Existing Pavement

Proposed Pavement

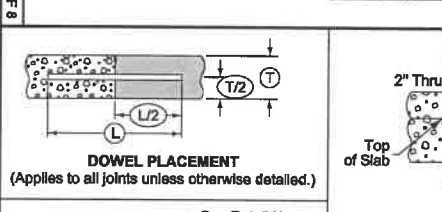
SUDAS KOWADOT

REVISION 10 04-21-20

FIGURE 7010.101 STANDARD ROAD PLAN PV-101 SHEET 3 OF 8

REVISIONS: Modified Dowel Assemblies on Sheets 6 and 7 to eliminate reference to 14 panels.

JOINTS

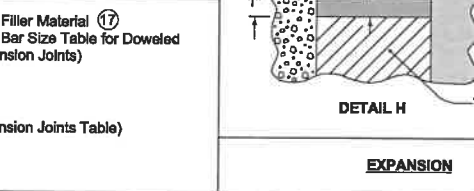
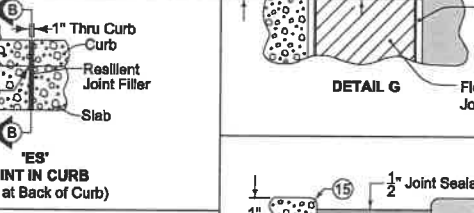
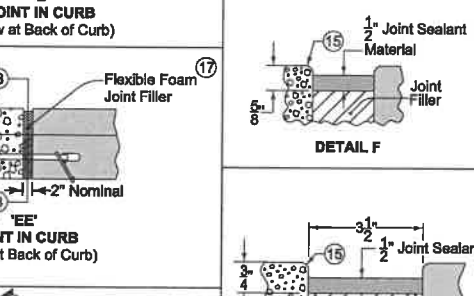
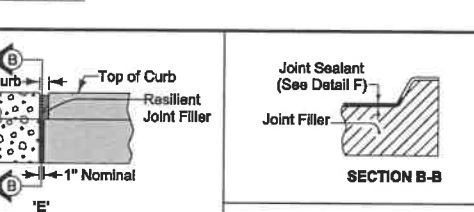
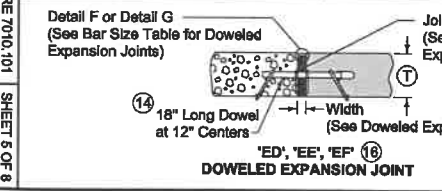
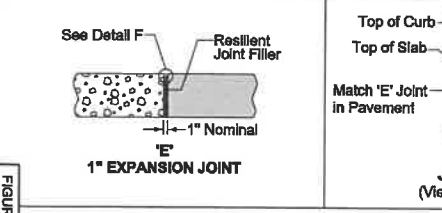


See Detail H

Width (See table below)

'CF' JOINT

| TYPE | WIDTH |
|------|--------|
| CF-1 | 2" |
| CF-2 | 2 1/2" |
| CF-3 | 3" |
| CF-4 | 3 1/2" |



- See Bar Size Table for Doweled Expansion Joints.
- Edge with 1/4 inch tool for length of joint indicated if formed; edging not required when cut with diamond blade saw.
- See Dowel Assemblies for fabrication details and placement limits. Coat the free end of dowel bar to prevent bond with pavement. At intake locations, dowel bars may be cast-in-place.
- Pre-drill or pre-form holes in joint material for appropriate dowel size.
- Compact tire buffings by spading with a square-nose shovel.

DOWELED EXPANSION JOINTS

| TYPE | WIDTH | FILLER MATERIAL (17) |
|------|--------|--------------------------|
| ED | 1" | Resilient (Detail F) |
| EE | 2" | Flexible Foam (Detail F) |
| EF | 3 1/2" | Flexible Foam (Detail G) |

BAR SIZE TABLE FOR DOWELED EXPANSION JOINTS

| T | < 8" | ≥ 8" but < 10" | ≥ 10" |
|----------------|------|----------------|--------|
| Dowel Diameter | 3/4" | 1 1/4" | 1 1/2" |

Tubular Dowel Bars will not be allowed for expansion joints.

LEGEND

Existing Pavement

Proposed Pavement

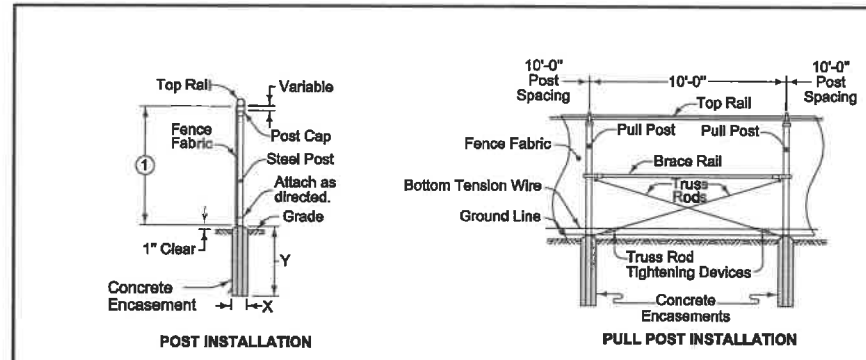
SUDAS KOWADOT

REVISION 10 04-21-20

FIGURE 7010.101 STANDARD ROAD PLAN PV-101 SHEET 4 OF 8

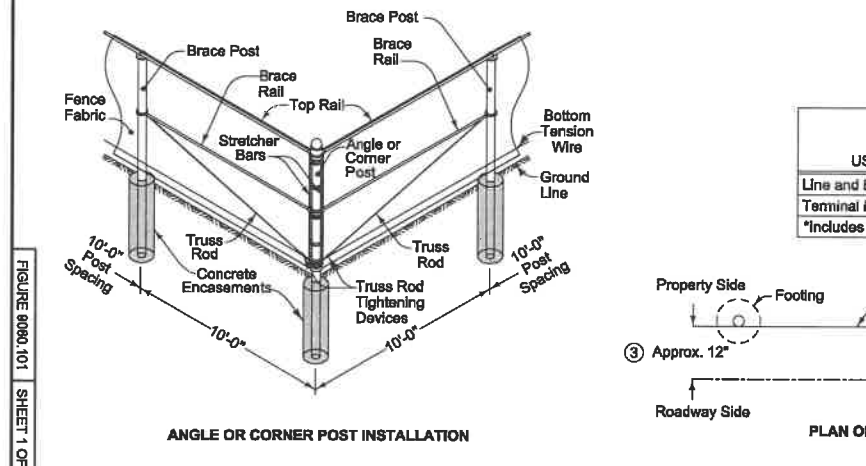
REVISIONS: Modified Dowel Assemblies on Sheets 6 and 7 to eliminate reference to 14 panels.

JOINTS



Place fence fabric on roadway side of post. For certain curves, stream crossings, or other locations, the Contractor has the option to place fabric on the side of the post away from the roadway.

- 1 Fabric width as specified in the contract documents.
- 2 For fence heights greater than 8 feet, the depth of the fence post footing is 3 feet plus 3 inches for each 1 foot in height over 8 feet.
- 3 Install the fence on the roadway side of the right-of-way when specified in the contract documents.



FENCE POST FOOTING DEPTH AND DIAMETER

| USE IN FENCE | FENCE HEIGHT | | | | | |
|----------------------|----------------|-------|---------------------|-------|------------|---|
| | 4'-0" and less | | Over 4'-0" to 8'-0" | | Over 8'-0" | |
| | X | Y | X | Y | X | Y |
| Line and Brace Posts | 0'-8" | 3'-0" | 0'-10" | 3'-0" | 1'-0" | 2 |
| Terminal Post* | 0'-10" | 3'-0" | 1'-0" | 3'-0" | 1'-4" | 2 |

*Includes corner, angle, and pull posts.

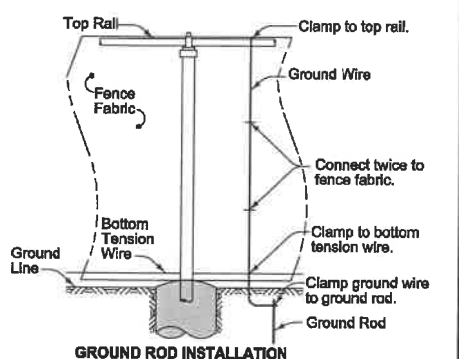
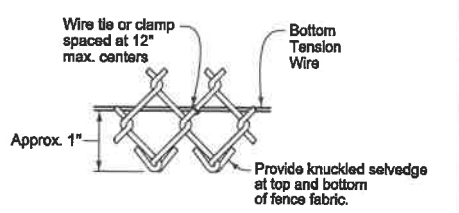
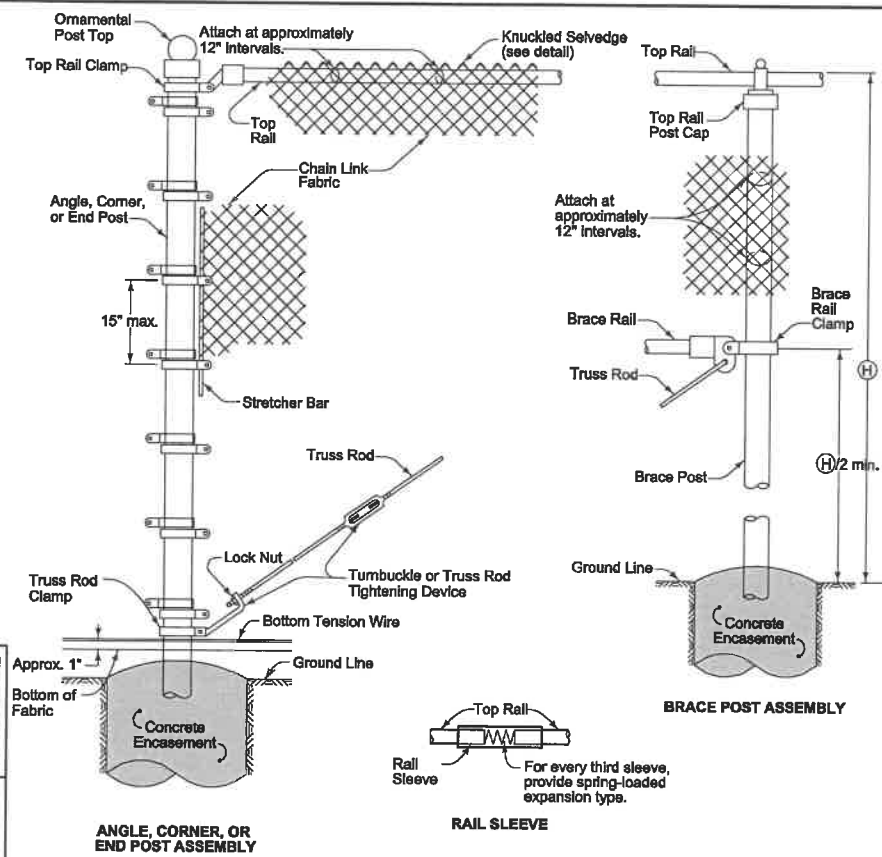
REVISION New 10-18-11

SUDAS 9060.101

SHEET 1 of 2

SUDAS Standard Specifications

CHAIN LINK FENCE



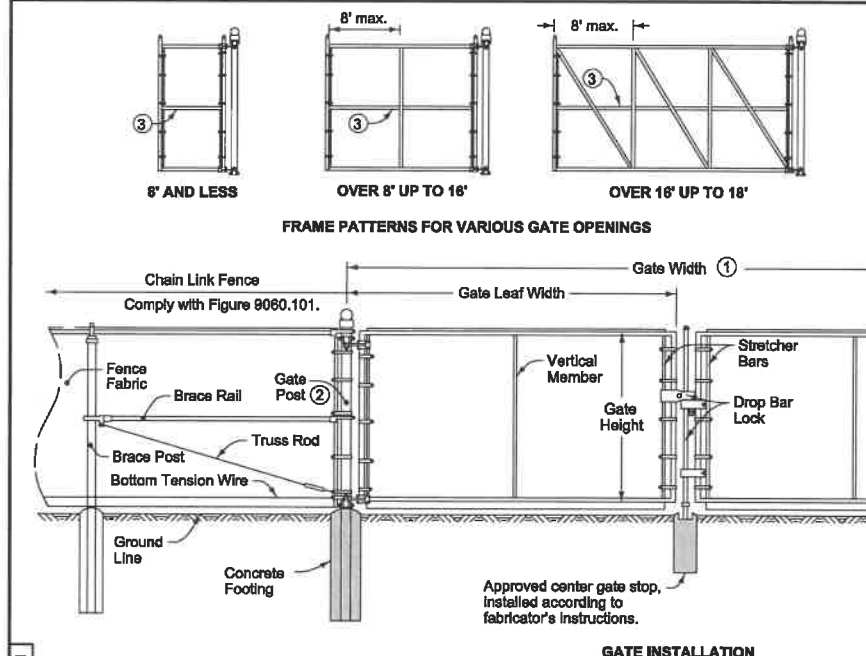
REVISION New 10-18-11

SUDAS 9060.101

SHEET 2 of 2

SUDAS Standard Specifications

CHAIN LINK FENCE



- 1 Double swing gate is required only for widths greater than 16 feet. Exact details of gate design are subject to approval of the Engineer. Furnish gate with approved stop, latch, and means for locking. Install as recommended by the manufacturer.
- 2 End post used to terminate run of fence if no gate is proposed.
- 3 Horizontal members are required only if the fabric height is 8 feet or greater.

GATE POST FOOTING DEPTH AND DIAMETER

| GATE HEIGHT | GATE LEAF WIDTH | X | Y |
|---------------|-----------------------|--------|-------|
| 8'-0" or less | 4'-0" or less | 0'-10" | 3'-0" |
| 8'-0" or less | over 4'-0" to 10'-0" | 0'-12" | 3'-0" |
| 8'-0" or less | over 10'-0" to 18'-0" | 1'-2" | 3'-0" |
| over 8'-0" | 8'-0" or less | 0'-10" | 3'-0" |
| over 8'-0" | over 8'-0" to 12'-0" | 1'-0" | 3'-0" |
| over 8'-0" | over 12'-0" to 18'-0" | 1'-4" | 3'-8" |
| over 8'-0" | over 18'-0" to 24'-0" | 1'-8" | 4'-0" |

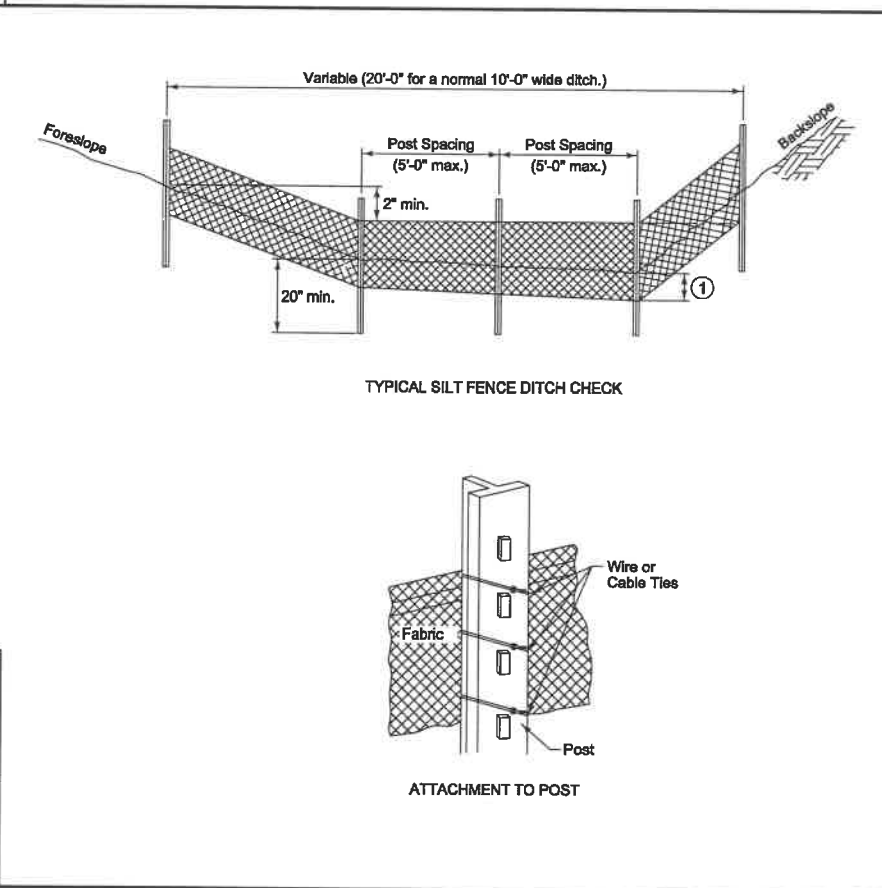
REVISION New 10-18-11

SUDAS 9060.102

SHEET 1 of 1

SUDAS Standard Specifications

CHAIN LINK GATE



- 1 Insert 12 inches of fabric a minimum of 6 inches deep (fabric may be folded below the ground line).

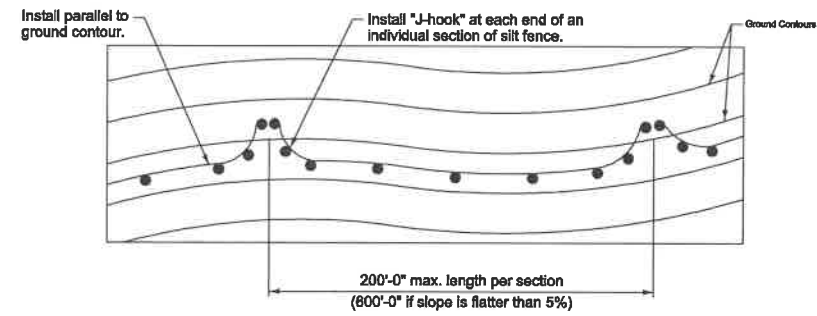
REVISION 2 10-21-14

SUDAS 9040.119

SHEET 1 of 2

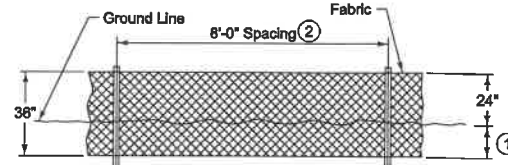
SUDAS Standard Specifications

SILT FENCE

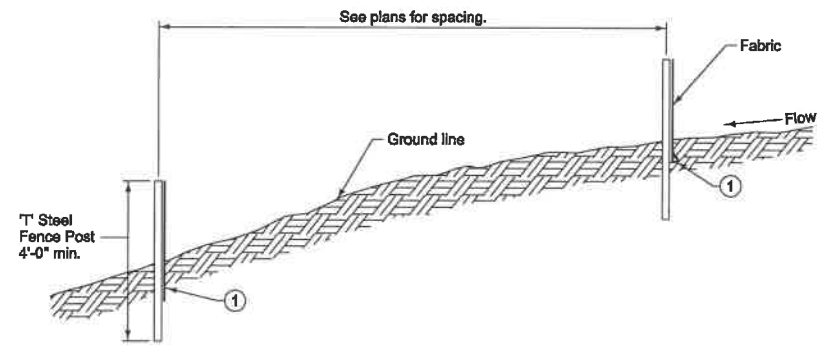


TYPICAL SILT FENCE INSTALLATION ON LONGITUDINAL SLOPES
(Plan View)

- ① Insert 12 inches of fabric a minimum of 8 inches deep (fabric may be folded below the ground line).
- ② Reduce post spacing to 5'-0" at water concentration areas, or as required to adequately support fence.



DETAILS OF SILT FENCE ON LONGITUDINAL SLOPES



TYPICAL SILT FENCE INSTALLATION ON LONGITUDINAL SLOPES
(Profile View)

FIGURE 9040.119 SHEET 2 OF 2

| | |
|---|--------------------------|
| SUDAS SUDAS Standard Specifications | REVISION 2 10-21-14 |
| | 9040.119 |
| | SHEET 2 of 2 |
| SILT FENCE | |

FEHR GRAHAM
ENGINEERING & ENVIRONMENTAL

ILLINOIS
IOWA
WISCONSIN

OWNER/DEVELOPER:
NEW HAMPTON CSD
710 WEST MAIN STREET
NEW HAMPTON, IA 50659

PROJECT AND LOCATION:
TRACK IMPROVEMENTS
NEW HAMPTON CSD, IOWA

DRAWN BY: JCB
APPROVED BY: JSB
DATE: DEC 2021
SCALE: AS NOTED

| REVISIONS | | |
|-----------|-------------|------|
| REV. NO. | DESCRIPTION | DATE |
| | | |
| | | |
| | | |

DRAWING:
DETAILS

SET TYPE: **BID SET**
©/CIP/21-1107 NH Type/21-1107 Details.dwg U.03

JOB NUMBER:
21-1107

SHEET NUMBER:
U.03