

PRELIMINARY PAVING ANALYSIS FOR:
SILVERHAWK PUBLIC ROAD DEDICATION

SILVERHAWK PHASE I - N.W. 172ND
BETWEEN HAWKS TREE LN. & WHITE
HAWK DR.

JULY 2017



SUBMITTED BY:



ENGINEERING | SURVEYING | PLANNING

SMITH ROBERTS BALDISCHWILER, LLC

100 N.E. 5TH STREET | OKLAHOMA CITY, OK 73104 | 405.840.7094

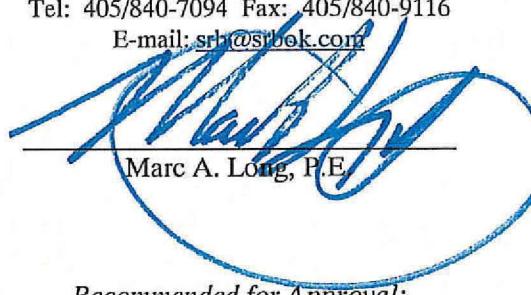
SRB PROJECT #115193

CITY OF OKLAHOMA CITY
APPROVAL SHEET
PRELIMINARY REPORT
Silverhawk Phase I- N.W. 172nd
Between Hawks Tree LN. and White Hawk Dr.

Prepared By:

SMITH ROBERTS BALDISCHWILER, LLC

Consulting Engineers – Certificate of Authorization No. 3949
100 N. E. 5th Street, Oklahoma City, Oklahoma 73104
Tel: 405/840-7094 Fax: 405/840-9116
E-mail: srb@srbok.com



Marc A. Long, P.E.



Recommended for Approval:



Eric J. Wenger, P.E., Director
Public Works/City Engineer

APPROVED by the Council and signed by the Mayor of the City of Oklahoma City this 14th day of
August, 20 18.

ATTEST:



City Clerk



REVIEWED as to form and legality.



Assistant Municipal Counselor

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SCOPE

Silverhawk Phase I is a residential development located at approximately Northwest 178th and North Pennsylvania Avenue. Within this residential addition, there is a small portion of the roadways, which were initially identified as a "Private Street and Public Utility Easement". This area is generally described as N.W. 172nd Street, between Hawks Tree Lane and White Hawk Drive. Smith Robert Baldischwiler, LLC (SRB) was contacted by the Silverhawk Home Owners Association (HOA) for the purpose of evaluating the existing condition of these "private roadways". It is the desire of this HOA to present these findings to the City of Oklahoma City (OKC) as a good faith effort to pursue the dedication of these roadways and improvements for public use. This report will identify what improvements will be recommended to be addressed by the HOA and also includes an estimate of construction costs for bringing the streets to acceptable standard for dedication to OKC.

COST ESTIMATE

Estimated construction cost for the street repair: \$104,650.00

Total cost (Option 1 with contingency, testing, administration, printing, and design.): **\$132,254.50**
Detailed cost estimate listed in Appendix B

SCHEDULE — BID AND CONSTRUCTION

This report will provide Silverhawk HOA a document for submission to OKC, for their review. And if it is the desire of the HOA to pursue this dedication of roadways, understanding the cost of required improvements, this is the expected time considerations for the project:

From time of approval by the homeowners of Silverhawk, Phase I:

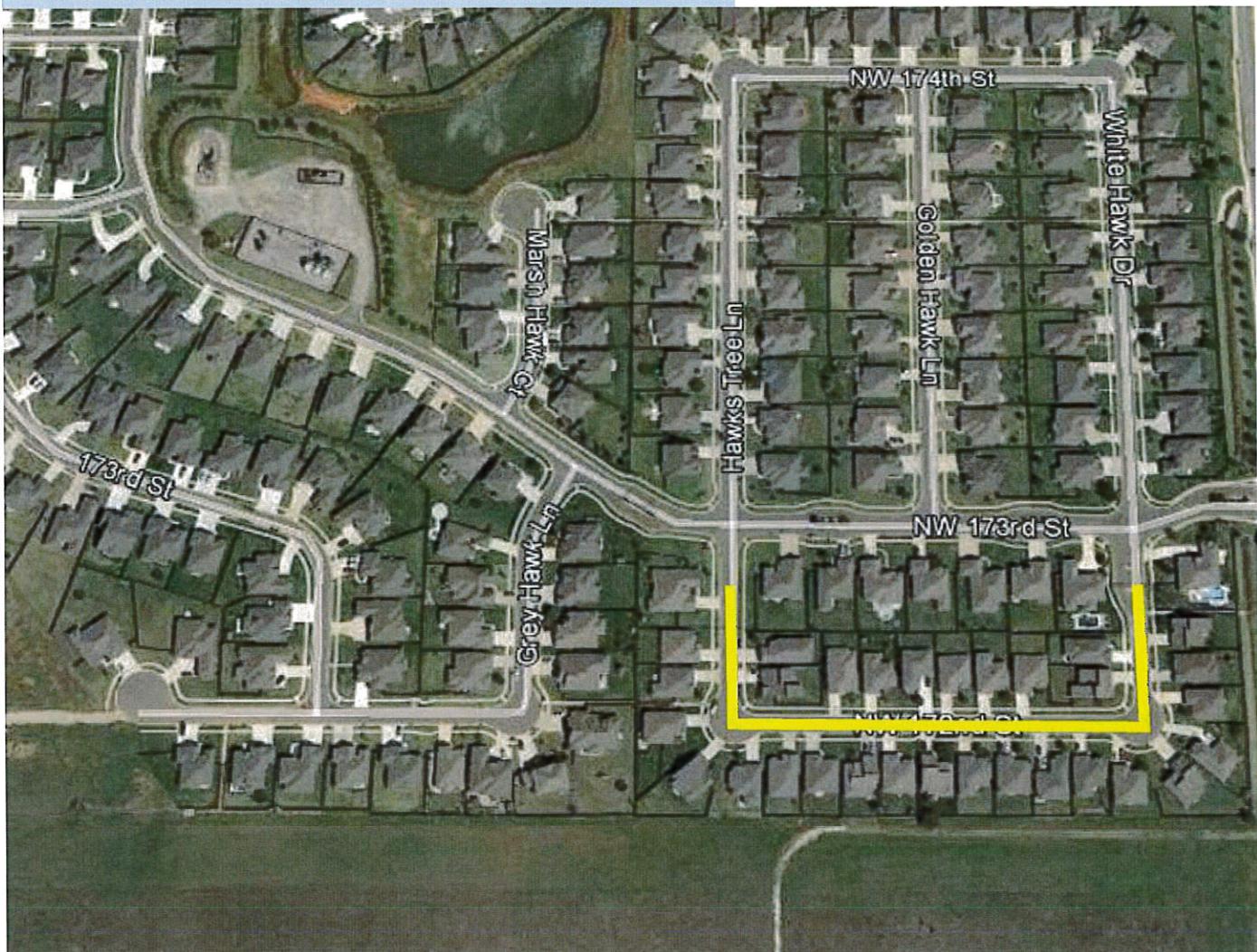
- 90 calendar days for preliminary plans
- 60 calendar days for final plans
- 45-60 calendar days for construction

RECOMMENDATION

1. Pavement removal, stabilization, and pavement replacement on N.W. 172nd Street for approximately 200 feet. Sta. 0+00 to Sta. 2+00.
2. Routing, preparations, and crack sealing of all pavements
3. Edge milling and thin asphalt overlay (1 1/4) of entire surface of roadways.
4. Removal and replacement of noncompliant wheelchair ramps. Installation of two (2) new ADA compliant ramps.
5. Recommend that the City of Oklahoma City proceed with the acceptance process for Silverhawk, PH 1.

SITE MAP

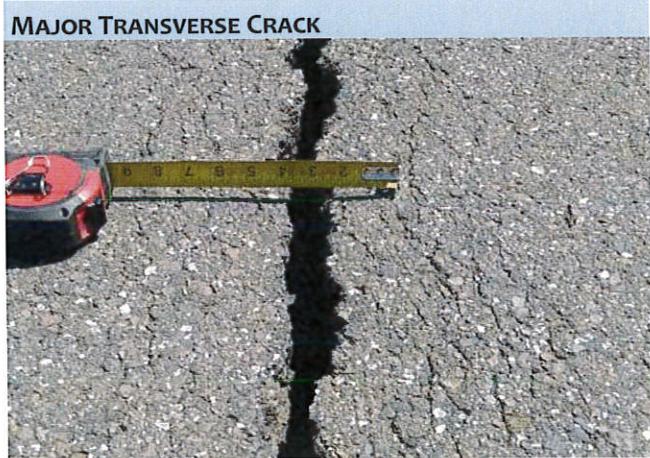
AERIAL LOCATION MAP



EXISTING PAVING CONDITIONS

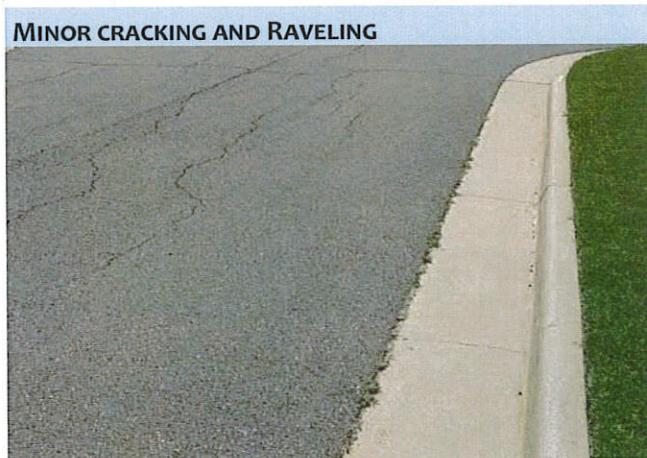
This evaluation of the Silverhawk, Phase I roadway's include N. W. 172nd Street, between Hawk's Tree Lane and White Hawk Drive, as well as approximately 165 feet on Hawk's Tree Lane and White Hawk Drive. Currently there is a controlled gate on White Hawk Drive and a locked gate with pedestrian entrance on Hawk's Tree Lane; if accepted by OKC these appurtenances shall be removed when final acceptance by OKC is accomplished. The typical sections for all of these roadways are a 26' Roadway with 2'-8" Curb and Gutter Section and 22' of 5 1/4" Asphalt pavement. The typical section indicates 3 1/4" asphalt base course (Type "A") and a 2" asphalt surface course (Type "B"). NOTE: Cores were not taken to verify these thicknesses for the pavements. There is a 6" Stabilized Base which extends the entire width of the pavements section, and 10" behind the back of curb. It was not determined prior to design the type of "stabilization" utilized in this application.

The current pavement condition of the roadway's mentioned within this report in Fair condition. One section of pavement (approx. 200' in length) within the N.W. 172nd Street, which is described along the stationing of the as-built plan set as Sta. 0+00 to Sta. 2+00 is in Poor condition and needs to be removed and replaced. There is considerable transverse cracking, varying in condition and widths, which needs to be addressed for maintenance purposes. This cracking is normally caused by fatigue in the subgrade or can be caused by expansive soils below the 6" modification that has reacted to climatological conditions over the life of the pavements. Also, there is separation between the face of the gutter section and the pavement, this also is in need of sealing as a corrective action. We have also recognized random cracking on the gutter sections which will require routing and sealing for correction. The cracking has been exposed to the climatological conditions, without maintenance and needs to be addressed.

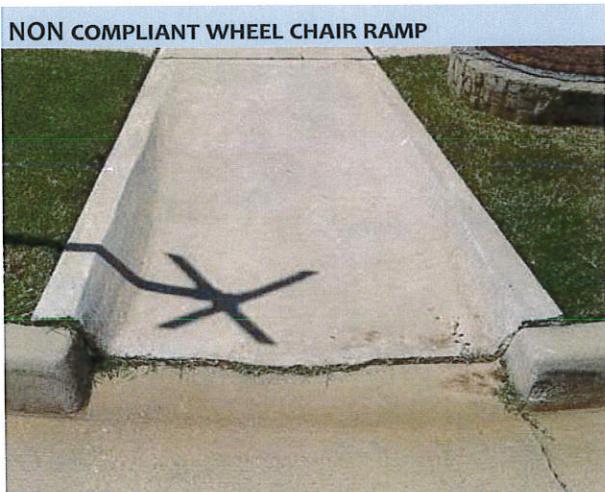


EXISTING PAVING CONDITIONS

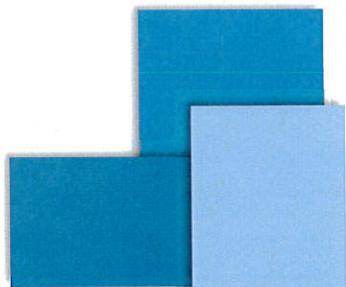
The surface condition of the asphalt shows considerable oxidation and some areas are beginning to show evidence of larger sized aggregate raveling from the surface. This condition is generally seen in pavements that may not have the annual average daily traffic (AADT) to keep the bituminous materials active; which is a condition generally seen in limited access paving areas. Due to the evidence of stability in the pavement section, once cracks are addressed, there should be a cold milling of the pavement along the gutter joint with a thin asphalt overlay to the existing surface which will provide protection for extended life.



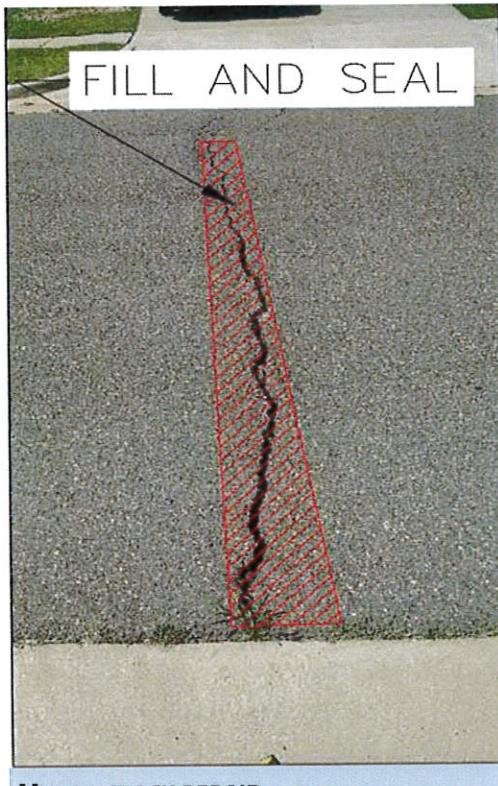
There are two ramps within the area of evaluation that were initially intended for handicap access to the sidewalks, but are no longer in compliance with ADA regulations. These ramps will need to be replaced, and additional ramps in a close proximity for the purpose of crossing the street will also need to be added. Two (2) ramps removed and replaced and Two (2) ramps constructed.



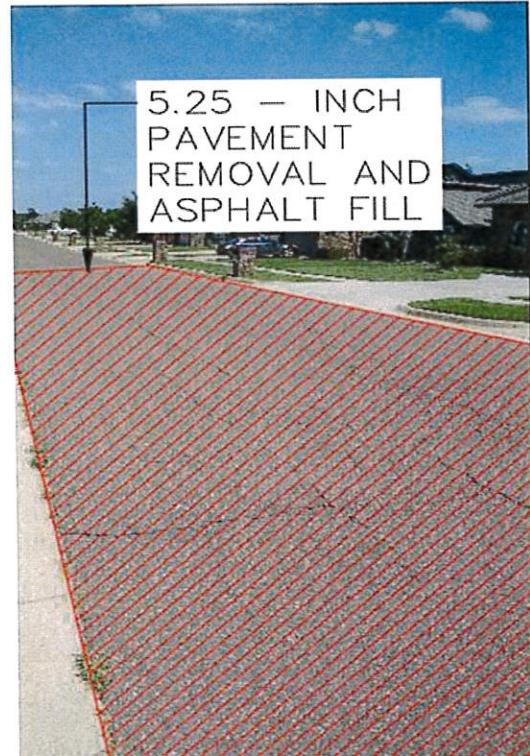
Existing sidewalk is the four (4') width with non-compliant ramps. The ramps for the entire addition will need to be brought into compliance with current ADA requirements.



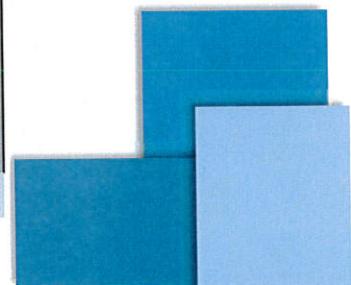
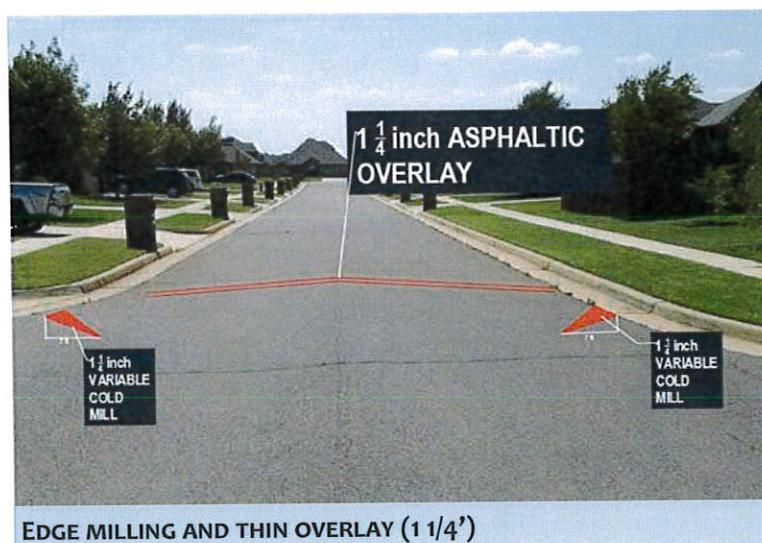
DESIGN PARAMETERS - CRACK SEALING AND PAVEMENT REHABILITATION



MAJOR CRACK REPAIR



REMOVE AND REPLACE PAVEMENT



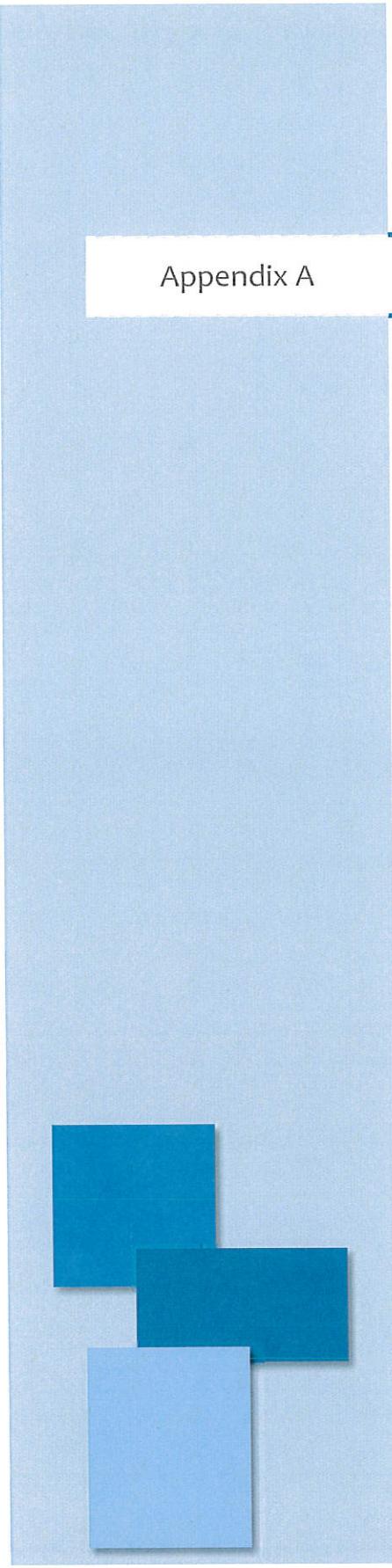


DISCUSSION AND RECOMMENDATIONS

The White Hawk, Phase I addition was established in 2008 and included within its boundaries a private section of pavement. It was established as a Neighborhood Association Residential Area located just south of N.W. 178th on North Pennsylvania Avenue. For this transfer of Private facilities to become Public maintained roadway to be accomplished, upgrading to the current City of Oklahoma City standards for the neighborhoods infrastructure must occur. This report addresses the existing condition of the streets within the neighborhood. This report makes recommendations for the repair of the streets with a estimated construction cost.

It is the recommendation of Smith Roberts Baldischwiler LLC, based on the observations of the Silverhawk infrastructure, that the following actions are taken.

1. Pavement removal, stabilization, and pavement replacement on N.W. 172nd Street for approximately 200 feet. Sta. 0+00 to Sta. 2+00.
2. Routing, preparations, and crack sealing of all pavements
3. Edge milling and thin asphalt overlay (1 1/4) of entire surface of roadways.
4. Removal and replacement of noncompliant wheelchair ramps. Installation of two (2) new ADA compliant ramps.
5. Recommend that the City of Oklahoma City proceed with the acceptance process for Silverhawk PH 1.



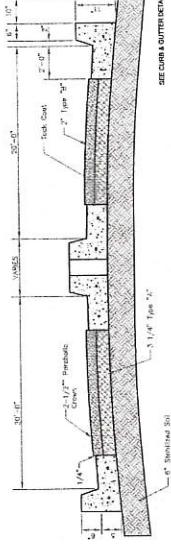
Appendix A

SILVERHAWK PHASE 1 AS-BUILT PLANS

**PAVING AND DRAINAGE PLANS
TO SERVE
SILVERHAWK
PHASE I
PD-1700**

LANE MILES: 5.577

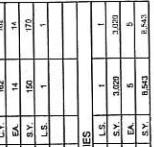
**PART OF THE NE 1/4 OF
SECTION 31, T-14-N, R-3-W, L.M. OKLAHOMA COUNTY,
OKLAHOMA CITY, OKLAHOMA**



AS BUILT: 12-13-2007

CONTRACT PRICE: \$1,761,443.00

CONTRACTOR: T.J. CAMPBELL



- SUMMARY OF QUANTITIES**
- | ITEM # | ITEM | UNIT | QUANTITY | AS-BUILT |
|-----------------------------------|---------------------------------|------|----------|----------|
| PAVING QUANTITIES | | | | |
| 1. | 2" TYPE II ASPHALT | S.Y. | 42,019 | 42,007 |
| 2. | 3 1/4" TYPE X ASPHALT | S.Y. | 42,819 | 42,097 |
| 3. | 8" STABILIZED BASE | S.Y. | 51,055 | 50,231 |
| 4. | ICE CURB AND GUTTER | L.F. | 29,061 | 29,253 |
| 5. | TRAFFIC CONTROL | L.S. | 1 | 1 |
| 6. | TERMINAL/PLATE/PAVEMENT MARKERS | E.A. | 1 | 1 |
| 7. | CURB MARKERS | E.A. | 318 | 316 |
| 8. | PIPE CURB AND GUTTER | L.F. | 260 | 260 |
| 9. | STABILIZED BASE | S.Y. | 826 | 826 |
| 10. | REMOVE & REPLACE SIDEWALK | L.S. | 1 | 1 |
| 11. | #4 REINFORCING ALONG CURB/curbs | L.F. | 2307 | 2307 |
| STORM SEWER QUANTITIES | | | | |
| 1. | 2" DI-INLET | E.A. | 5 | 5 |
| 2. | 2 1/2" DI-LET | E.A. | 4 | 4 |
| 3. | 2 1/2" DI-LET | E.A. | 5 | 5 |
| 4. | 2 1/2" DI-LET | E.A. | 3 | 3 |
| 5. | GRADED STREET INLET | E.A. | 1 | 1 |
| 6. | GRADED STREET INLET | E.A. | 1 | 1 |
| 7. | SOAK AREAS INLET TO LIQUIDATION | E.A. | 1 | 1 |
| 8. | SOAK AREAS INLET TO LIQUIDATION | E.A. | 1 | 1 |
| 9. | SOAK AREAS INLET TO LIQUIDATION | E.A. | 1 | 1 |
| 10. | #4 REINFORCING ALONG CURB/curbs | E.A. | 1 | 1 |
| 11. | #4 REINFORCING ALONG CURB/curbs | E.A. | 1 | 1 |
| 12. | #4 REINFORCING ALONG CURB/curbs | E.A. | 1 | 1 |
| 13. | #4 REINFORCING ALONG CURB/curbs | E.A. | 1 | 1 |
| 14. | #4 REINFORCING ALONG CURB/curbs | E.A. | 1 | 1 |
| 15. | #4 REINFORCING ALONG CURB/curbs | E.A. | 1 | 1 |
| 16. | #4 REINFORCING ALONG CURB/curbs | E.A. | 1 | 1 |
| 17. | #4 REINFORCING ALONG CURB/curbs | E.A. | 1 | 1 |
| 18. | #4 REINFORCING ALONG CURB/curbs | E.A. | 1 | 1 |
| 19. | #4 REINFORCING ALONG CURB/curbs | E.A. | 1 | 1 |
| 20. | #4 REINFORCING ALONG CURB/curbs | E.A. | 1 | 1 |
| 21. | #4 REINFORCING ALONG CURB/curbs | E.A. | 1 | 1 |
| 22. | #4 REINFORCING ALONG CURB/curbs | E.A. | 1 | 1 |
| 23. | #4 REINFORCING ALONG CURB/curbs | E.A. | 1 | 1 |
| 24. | DRIVE BENCH | L.F. | 1160 | 1160 |
| 25. | PIPE REINFORCING | E.S. | 550 | 550 |
| 26. | PIPE REINFORCING | E.S. | 2 | 2 |
| 27. | PIPE REINFORCING | E.S. | 2 | 2 |
| 28. | PIPE REINFORCING | E.S. | 2 | 2 |
| 29. | PIPE REINFORCING | E.S. | 10 | 10 |
| 30. | PIPE REINFORCING | E.S. | 1 | 1 |
| 31. | PIPE REINFORCING | E.S. | 1 | 1 |
| 32. | PIPE REINFORCING | E.S. | 1 | 1 |
| 33. | PIPE REINFORCING | E.S. | 1 | 1 |
| 34. | PIPE REINFORCING | E.S. | 1 | 1 |
| 35. | PIPE REINFORCING | E.S. | 1 | 1 |
| 36. | PIPE REINFORCING | E.S. | 1 | 1 |
| 37. | PIPE REINFORCING | E.S. | 1 | 1 |
| 38. | PIPE REINFORCING | E.S. | 1 | 1 |
| 39. | PIPE REINFORCING | E.S. | 1 | 1 |
| 40. | PIPE REINFORCING | E.S. | 1 | 1 |
| 41. | PIPE REINFORCING | E.S. | 1 | 1 |
| 42. | TEMPORARY DIVERSION SWALE | L.S. | 1 | 1 |
| EROSION CONTROL QUANTITIES | | | | |
| 1. | TOP CONSTRUCTION SIEVE | L.S. | 1 | 1 |
| 2. | 12" CURB & GUTTER | S.Y. | 3,029 | 3,020 |
| 3. | RAGED ROCK CHECK DRAIN | E.A. | 5 | 5 |
| 4. | 4" STABILIZED BARROWS | S.Y. | 845 | 845 |

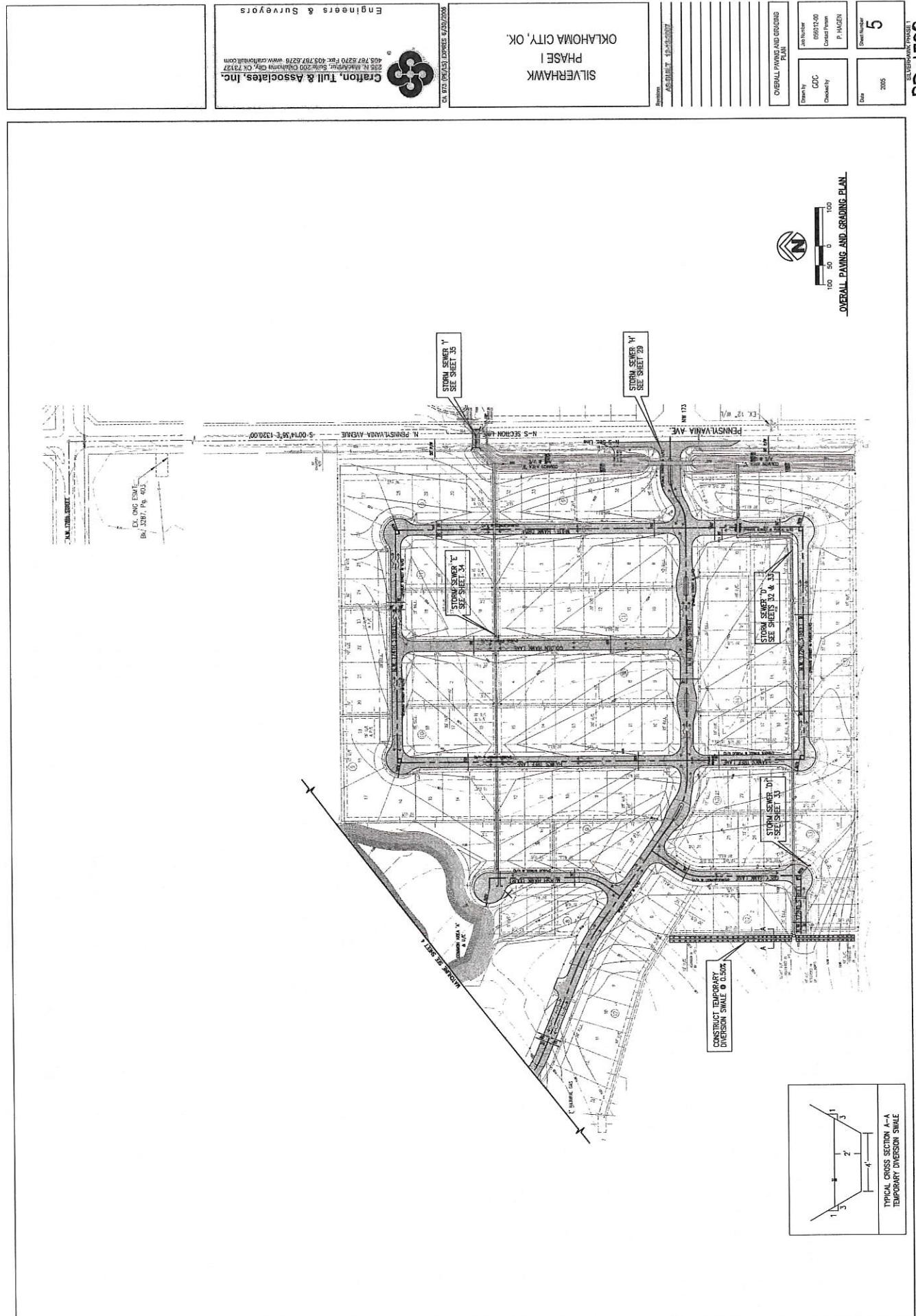
PD-1700

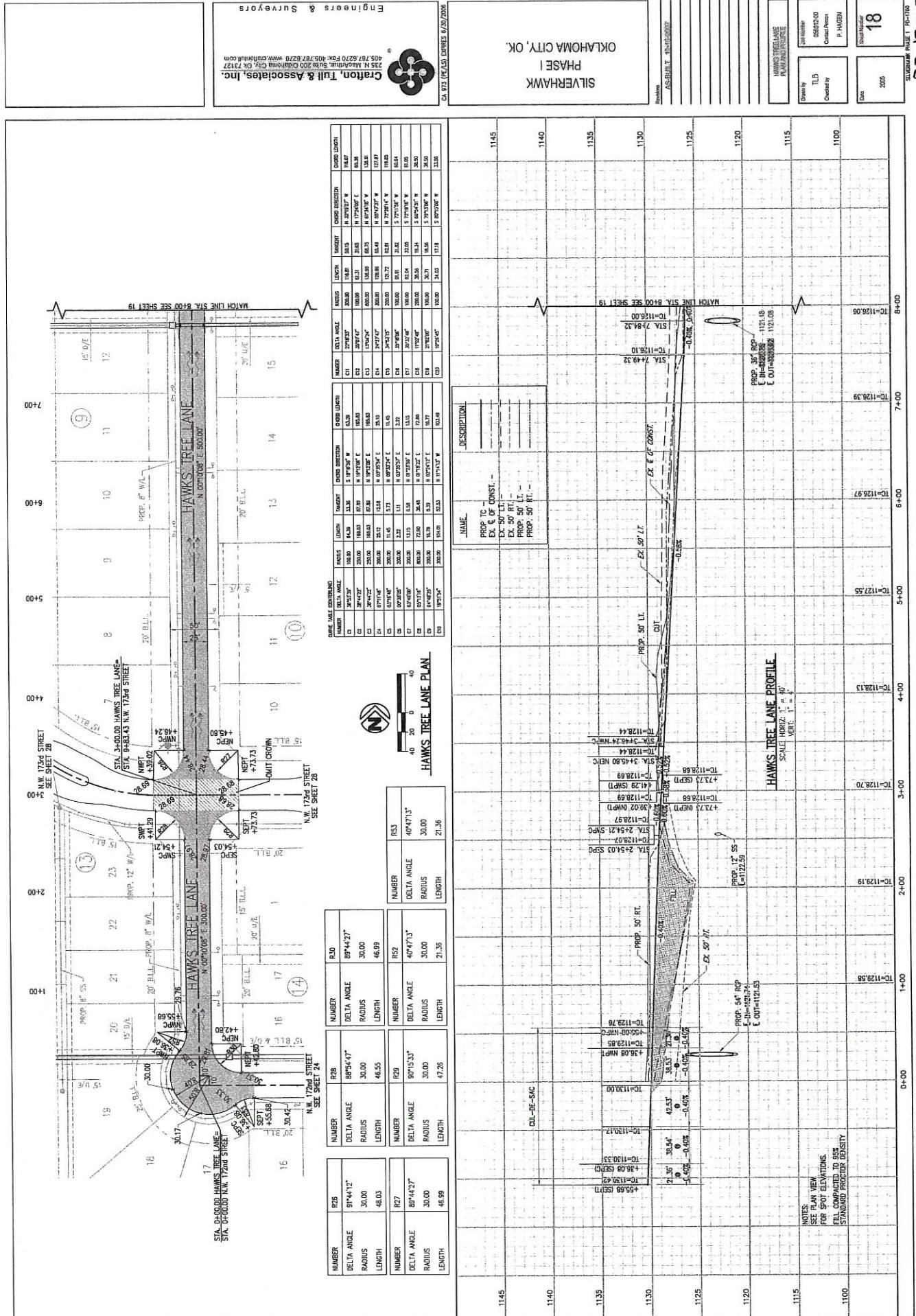
SILVERHAWK PHASE 1
PD-1700

GENERAL NOTES:	
1. CONSTRUCTION SHALL BE IN ACCORDANCE WITH THE STANDARD SPECIFICATIONS FOR CONSTRUCTION OF PUBLIC IMPROVEMENTS PUBLISHED BY THE CITY OF OKLAHOMA CITY AS OF THE DATE OF CONTRACT EFFECTED IN PUBLIC AND PRIVATE DEVELOPMENT WORK WITHIN OKLAHOMA CITY LIMITS.	
2. ANY PAY QUANTITY TEST FOR QUALITY TESTING PROCEDURES OUTLINED IN THE CITY'S STANDARDS AND CONDITIONS OF PAYMENT SHALL BE CONDUCTED BY THE CONTRACTOR. THE STATE THAT IS NOT CLEARLY ADDRESSED IN TEN PAY QUANTITY TABLES FOR THE CONTRACT AGREEMENT BETWEEN DEVELOPER AND CONTRACTOR WILL BE CONSIDERED AS AN INCIDENTAL PAY ITEM AND SHALL NOT BE INCLUDED IN THE CITY'S STANDARDS AND CONDITIONS OF PAYMENT.	
3. TESTING OF MATERIALS AND WORKMANSHIP SHALL BE UNDERTAKEN AS OUTLINED IN THIS CITY'S STANDARDS AND CONDITIONS OF PAYMENT.	
4. THE CONTRACTOR IS RESPONSIBLE FOR THE PROMPT REPAIR/REPLACEMENT AND/OR REPAIR OF ALL TRAFFIC CONTROL DEVICES AND IMPROVEMENTS DAMAGED OR DESTROYED DUE TO CONSTRUCTION.	
5. THE CONTRACTOR SHALL BE RESPONSIBLE FOR NOTIFY ALL UTILITY COMPANIES AND GOVERNMENT AGENCIES WHO MIGHT HAVE UTILITIES ON AND UNDER THE PROPERTY TO PROTECT THESE UTILITY LINES DURING CONSTRUCTION AND SHALL REPAIR ANY DAMAGES MADE.	
6. THE CONTRACTOR SHALL BE RESPONSIBLE FOR PROTECTING THE GROUND SURFACE FROM ANY VANDALISM OR OTHER DAMAGE DURING CONSTRUCTION. THE GROUND SHALL BE STRIPPED OF VEGETATION, COVER, SCRUBBED AND RECOMPACTED. ELL SWALE PLACED IN THE GROUND SHALL BE REPAVED OR RECONSTRUCTED AS NEEDED FOR THE REMOVAL OF ALL PAVEMENT MARRINGS THAT WILL BE IN CONFLICT WITH THE PROPOSED WORK.	
7. THE CONTRACTOR IS RESPONSIBLE FOR THE REMOVAL OF ALL PAVEMENT MARRINGS THAT WILL BE IN CONFLICT WITH THE PROPOSED WORK.	
8. "DRIVING" WILL BE USED ON STORM SEWERS, UNDER STREETS, INCIDENTAL PAY ITEM AND BE IMPLEMENTED AND PAID FOR CAN BE SUBMITTED BY THE CONTRACTOR.	
9. REMOVAL OF EXISTING CURB BACKFILL AND DRESSING OF PROPOSED CURB BACKFILL AND DRESSING OF SOILS.	
10. THE PROCEDURE WILL BE FOR THE CITY'S DESIGNATED TESTER/JUDGMENT TO DETERMINE THE TYPE AND AMOUNT OF LINE TO BE AS REQUIRING TO FAIRIZE. THE FAIRIZING IS TO BE DONE AS A LESS EXPENSIVE ALTERNATIVE TO DOING A QUALITY CONTROL TEST.	
11. A COPY OF THE PROPOSED CONTRACT AGREEMENT WILL BE PROVIDED TO THE INSPECTOR.	
12. STORM WATER DISCHARGE PERMIT REQUIRED BEFORE ANY CURB AND DRESSING OF PROPOSED CURB BACKFILL AND DRESSING OF SOILS.	
13. A NOTICE OF INTENT (NOI) SHOULD BE SUBMITTED 20 DAYS PRIOR TO THE INITIAL DISTURBANCE OF SOILS.	
14. ALL PIPE JOINTS TO DOUBLE WRAPPED WITH FILTER FABRIC.	
15. A WORK ZONE NOTICE MUST BE FILED WITH THE TRAFFIC MANAGEMENT DIVISION AT LEAST TWO WORKING DAYS PRIOR TO THE COMMENCEMENT OF WORK.	
16. THIS NOTICE MUST BE FILED WITH THE CITY OF OKLAHOMA CITY. THIS NOTICE MUST BE FILED WITH THE CITY OF OKLAHOMA CITY. THIS NOTICE MUST BE FILED WITH THE CITY OF OKLAHOMA CITY. THIS NOTICE MUST BE FILED WITH THE CITY OF OKLAHOMA CITY.	

SILVERHAWK PHASE 1
PD-1700

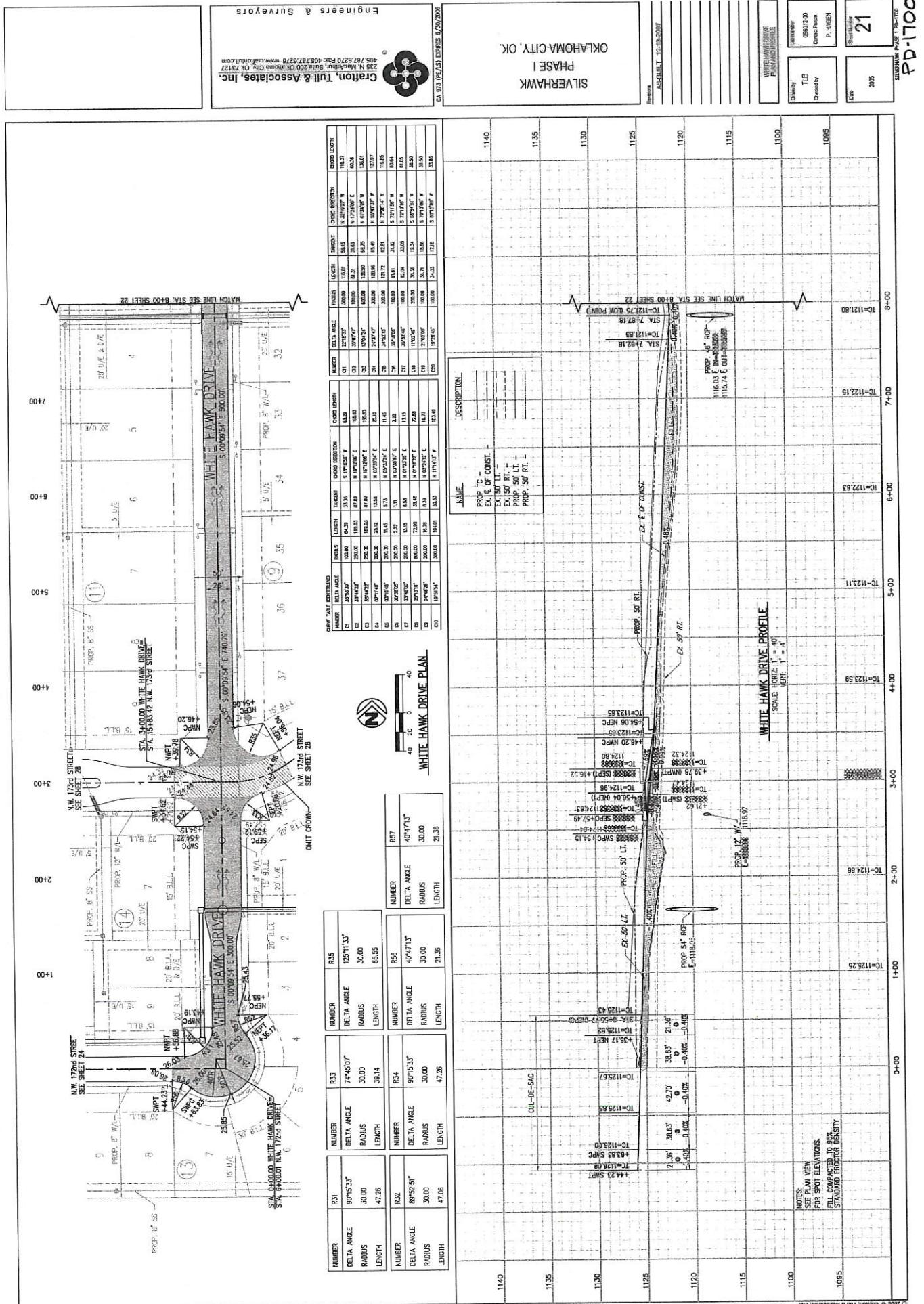
SILVERHAWK PHASE 1
PD-1700





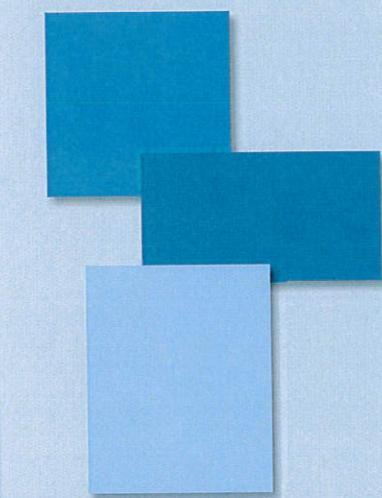
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Drawn by	T.B.
Checked by	P. HAGEN
Date	2006
Supervisor	18



Appendix B

PROPOSED IMPROVEMENTS-CONSTRUCTION COST ESTIMATE



ESTIMATED COSTS

July 25th, 2017

SILVERHAWK, PH. I - N.W. 172ND, HAWKS TREE LANE & WHITE HAWK DRIVE**COST ESTIMATE FOR STREET REPAIR**

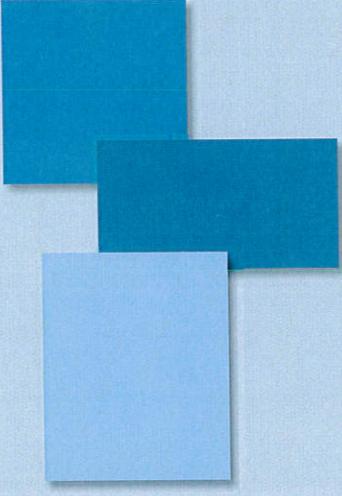
Item No.	Section	Description	Units	Estimated Unit Price	Estimated Quantity	Estimated Price
1	301-07	Asphalt Concrete Type D (70-28)	TON	\$ 110.00	250.0	\$ 27,500.00
2	301-31	Asphalt Concrete Type A (64-22)(5")	TON	\$ 100.00	150.0	\$ 15,000.00
3	309-08	Cold Milling Asphalt (Varies 0-1 1/4")	SY	\$ 3.00	2500.0	\$ 7,500.00
4	310-01	Joint Rehabilitation	LF	\$ 3.00	1600.0	\$ 4,800.00
5	801-03	Mobilization	LS	\$ 8,500.00	1.0	\$ 8,500.00
6	801-04	Pre & Post Construction Video	LS	\$ 1,000.00	1.0	\$ 1,000.00
7	812-04	Asphalt Pavement Removal	SY	\$ 15.00	500.0	\$ 7,500.00
8	814-00	Pavement Cut and Repair (Block Joint Repair, Full Depth)	LF	\$ 20.00	550.0	\$ 11,000.00
9	816-01	Remove Sidewalk	SY	\$ 25.00	40.0	\$ 1,000.00
10	823-00	Sidewalk (5')	SY	\$ 60.00	40.0	\$ 2,400.00
11	830-00	ADA Curb Ramp	EA	\$ 1,200.00	4.0	\$ 4,800.00

TOTAL ESTIMATED STREET REPAIR CONSTRUCTION COST \$ 91,000.00

Contingency (15%)	\$ 13,650.00
Testing (3%)*	\$ 3,139.50
Administration (10%)*	\$ 10,465.00
Advertising/Printing Costs*	\$ 2,000.00
Engineering/Surveying Costs*	\$ 12,000.00

ESTIMATED TOTAL COSTS \$ 132,254.50

*Project and Contract Administrative Fees from OKC

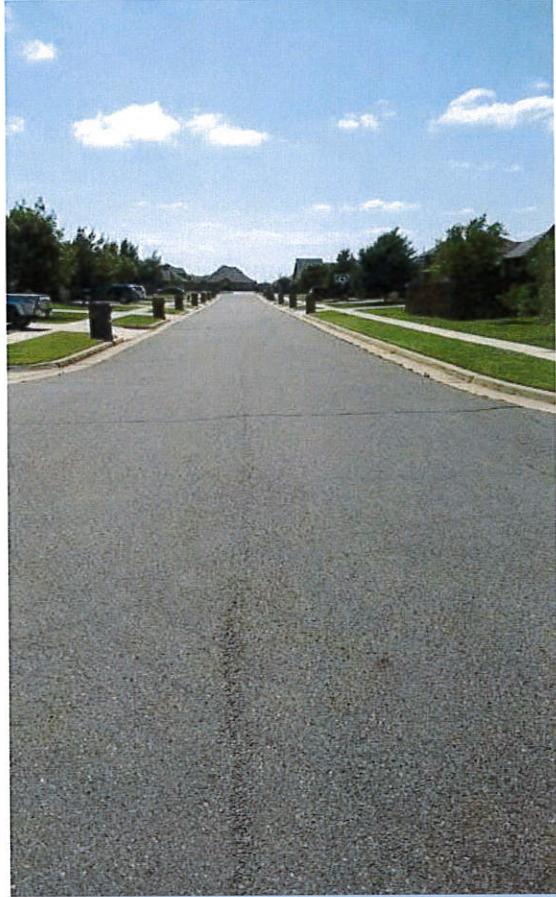


Appendix C

SILVERHAWK CONDITION PHOTOS



WHITE HAWK DRIVE



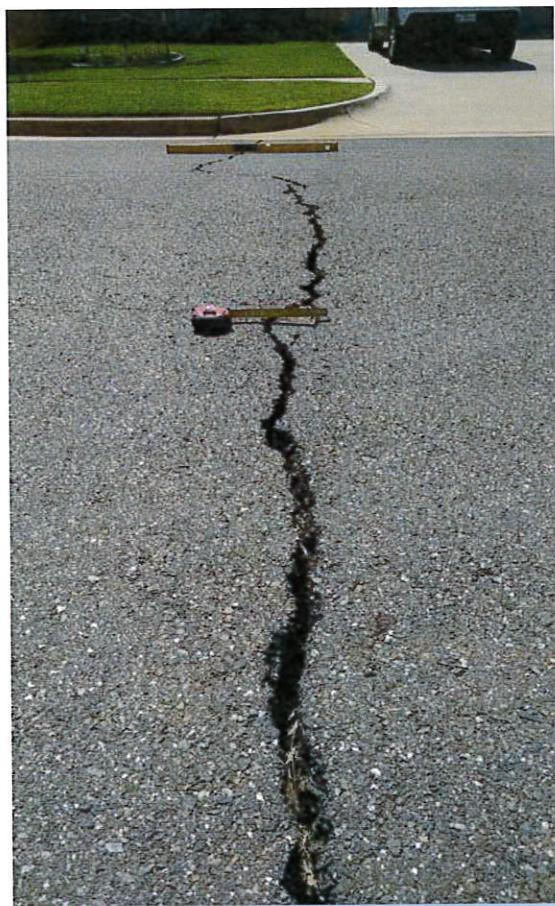
N.W. 172ND STREET



HAWK'S TREE LANE



MAJOR CRACK (BLOCK JOINT REPAIR)



MAJOR CRACK (BLOCK JOINT REPAIR)



MINOR CRACKING AND PAVEMENT PROFILE



NON COMPLIANT WHEEL CHAIR RAMP



SEPARATION AT GUTTER JOINT



DRIVeway SEPARATION AND GUTTER CRACKING